GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: FULL-SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title: Mediterranean Pollution Hot Spots Investment Project.			
Country(ies):	Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia.	GEF Project ID:[1]	9717
GEF Agency(ies):	UN Environment	GEF Agency Project ID:	01423
Other Executing Partner(s):	European Investment Bank (EIB) and UN Environment/MAP and MED POL.	Submission Date:	
GEF Focal Area (s):	International Waters	Project Duration (Months)	60 months
Integrated Approach Pilot	IAP-Cities ☐ IAP-Commodities ☐ IAP-Food Security ☐	Corporate Program: SGP ☐	
Name of Parent Program	Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security – ID9607	Agency Fee ($)	450,000

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in $) GEF Project Financing	(in $) Co-financing
IW-3 Program 5	5.1 Elimination or substantial decrease in frequency and extent of "dead zones" in sizeable part of developing countries' LMEs.	GEFTF	5,000,000	546,451,400
	Total project costs		5,000,000	546,451,400

B. PROJECT DESCRIPTION SUMMARY

Project Objective: Improving water security, human and ecosystem health, and climate resilience in coastal hot spots.

Project Components/ Programs	Financing Type[3]	Project Outcomes	Project Outputs	Trust Fund	(in $) GEF Project Financing	(in $) Confirmed Co-financing
Component 1. National actions: Nutrient reduction investments in coastal hotspots	TA	**Outcome 1:** Investments in upgrading WWTPs and reusing of treated wastewater, and/or remediation of former industrial sites, and/or depollution of catchment area in Egypt, Lebanon and Tunisia are secured through strengthened capacity and increased country	*Outputs 1.1 to 1.5 refer to investments in wastewater collection and treatment in Egypt, for the depollution of the waters in drains and canals in the Nile Delta and the Mediterranean Sea.* Output 1.1 Preparatory studies finalized.	GEFTF	4,412,000	542,056,250

[1] Project ID number remains the same as the assigned PIF number.
[2] When completing Table A, refer to the excerpts on GEF 6 Results Frameworks for GETF, LDCF and SCCF and CBIT programming directions.
[3] Financing type can be either investment or technical assistance.

		commitments.	Output 1.2 Capacity-building activities to enable the national water and sanitation companies to better operate and maintain wastewater collection and treatment systems finalized. Output 1.3 Targeted surveys and studies to enable informed decision-making and enhance the sustainability of the investments and their beneficial impacts, prepared. Output 1.4 Public awareness raised on the benefits of proper wastewater disposal. Output 1.5 Gender equality mainstreamed in the wastewater sector in Egypt. *Outputs 1.6 to 1.10 refer to investments in Lebanon in wastewater collection systems.* Output 1.6 Preparatory studies, finalized. Output 1.7 Responsibilities defined, and operation procedures developed and submitted for adoption by relevant authorities. Output 1.8 Monitoring and evaluation capacity of MOEW and WEs improved. Output 1.9			

			Surveys and studies to enable informed decision-making and enhance the sustainability of the investment and of its beneficial impacts, prepared. Output 1.10 Gender equality mainstreamed in the wastewater sector in Lebanon. *Outputs 1.11 to 1.13 refer to investments for the upgrading and/or extension of 10 WWTPs to improve the quality of Tunisian surface water, groundwater, and coastal waters.* Output 1.11 Preparatory studies, finalized. Output 1.12 Capacity enhancement of ONAS to operate and maintain wastewater systems completed. Output 1.13 Wastewater Master Plans for the targeted regions are updated.			
Component 2. Regional actions: Harmonization of relevant standards	TA	**Outcome 2:** Effectiveness of environmental management by the Contracting Parties to the Barcelona Convention increased through the development of common environmental standards on desalination, aquaculture, and wastewater and sludge management.	Output 2.1 Regional standards on wastewater management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention. Output 2.2 Regional standards on sludge management; regional and national measures to	GEFTF	350,000	3,375,010

			implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention. Output 2.3 Regional standards on desalination; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention. Output 2.4 Regional standards for reducing pollution from aquaculture; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.			
				Subtotal		4,762,000	545,431,260
				Project Management Cost (PMC)[4]	GEFTF	238,000	1,020,140
				Total project costs		5,000,000	546,451,400

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
Executing Agencies	European Investment Bank.	hard loan/In kind	260,000,000[5]
IFIs	Other finance providers	hard loan/In kind	260,000,000[6]

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

[5] The amounts refer to investment that will be enabled through Technical Assistance provided as part of Child Project1.2. EIB can finance up to 50% of the identified and prepared investments.

[6] The remaining funds are expected to be provided by other IFIs and/or development agencies operating in the respective target countries as well as public sector financing (typically national governments). As the water and wastewater sector is usually managed by public entities, there is usually only limited involvement of private investment. Known examples are large project finance PPPs.

Recipient Government	Egypt	In-kind	4,187,000
Recipient Government	Lebanon	In-kind	20,580,000
Recipient Government	Tunisia	In-kind	1,684,400
Total Co-financing			546,451,400

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee [a)] (b)[2]	Total (c)=a+b
UN Environment	GEF TF	Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia.	International Waters	(select as applicable)	5,000,000	450,000	5,450,000
Total Grant Resources					5,000,000	450,000	5,450,000

a) Refer to the Fee Policy for GEF Partner Agencies

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS[7]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*hectares*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*hectares*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	*1 Number of freshwater basins*
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*Percent of fisheries, by volume*
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO_{2e} mitigated (include both direct and indirect)	metric tons
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	*metric tons*
	Reduction of 1000 tons of Mercury	*metric tons*
	Phase-out of 303.44 tons of ODP (HCFC)	*ODP tons*
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	*Number of Countries:*
	Functional environmental information systems are established to support decision-making in at least 10 countries	*Number of Countries:*

Project Core Indicators		Expected at CEO Endorsement
1	**Terrestrial protected areas** created or under improved management for conservation and sustainable use (Million Hectares)	
2	**Marine protected areas** created or under improved management for conservation and sustainable use (Million Hectares)	
3	Area of **land restored (**Million Hectares)	

[7] Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

4	Area of **landscapes under improved practices (**excluding protected areas) (Million Hectares)	
5	Area of **marine habitat under improved practices** (excluding protected areas) (Million Hectares)	
	Total area under improved management (Million Hectares)	
6	**Greenhouse Gas Emissions Mitigated** (Million metric tons of CO2e)	
7	**Number of shared water ecosystems** (fresh or marine) under new or improved cooperative management	1
8	Globally over-exploited **marine fisheries** moved to more sustainable levels (thousand metric tons) (Percent of fisheries, by volume)	
9	**Reduction**, disposal/destruction, phase out, **elimination** and avoidance of **chemicals of global concern** and their waste in the environment and in processes, materials and products (thousand metric tons of toxic chemicals reduced)	
10	Reduction, avoidance of emissions of **POPs to air** from point and non-point sources (grams of toxic equivalent gTEQ)	
11	Number of **direct beneficiaries disaggregated by gender** as co-benefit of GEF investment	

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? NO

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/CBIT Trust Fund) in Annex D.

PART II: PROJECT JUSTIFICATION

Overview of the MedProgramme and context of the Child Project 1.2

The GEF/UN Environment "Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security" (2019-2024)[8] represents the first GEF programmatic multi-focal area initiative in the Mediterranean Sea. It will operationalize priority actions to reduce major transboundary environmental stresses in its coastal areas while strengthening climate resilience and water security and improving the health and livelihoods of coastal populations. The MedProgramme will be implemented in ten beneficiary countries sharing the Mediterranean basin: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, Tunisia and Turkey. Its eight Child Projects[9]

[8] GEF Lead Implementing Agency: UN Environment. Other GEF Implementing Agency: European Bank for Reconstruction and Development (EBRD). Leading Executing Agency: UN Environment/MAP. Executing partners: UNESCO International Hydrological Programme (IHP), European Investment Bank (EIB), Global Water Partnership – Mediterranean (GWP-Med), WWF Mediterranean Programme Office (WWF MedPO), IUCN, Priority Actions Programme Regional Activity Centre (PAP/RAC), Plan Bleu Regional Activity Centre (Plan Bleu), Specially Protected Areas Regional Activity Centre (SPA/RAC) and the Sustainable Consumption and Production Regional Activity Centre (SCP/RAC).

[9] At the time of its approval in October 2016, the MedProgramme was comprised of seven Child Projects. Subsequently, a Mediterranean climate change adaptation project was developed by UN Environment/MAP for financing through the Special Climate Change Fund (SCCF). It was agreed by the UN Environment/MAP, UN Environment and the GEF Secretariat that this SCCF

cut across four different Focal Areas of the Global Environment Facility Biodiversity [BD], Chemicals and Waste [CW], Climate Change Adaptation [CCA] and International Waters [IW])and involve a wide spectrum of developmental and societal sectors ranging from banking institutions, the private sector, governmental and non-governmental bodies, industry, research, media, and various other organizations including Regional Activity Centers and Basel and Stockholm Regional Centers. It builds on the MedPartnership and ClimVar & Integrated Coastal Zone Management (ICZM) [10] GEF projects (GEF IDs 2600 and 3990) which have enriched the knowledge on the Mediterranean environment and unraveled the implications of climate change and variability; strengthened countries' mutual trust, cooperation and common purpose; consolidated the partnership among countries, UN bodies, civil society organizations, bilateral donors and the European Union (EU); and, tested on the ground the feasibility and effectiveness of technical and policy instruments aimed at addressing major present and future threats to environmental sustainability and climate related impacts.

The eight Child Projects (CP) of the MedProgramme (Table 1 and Figure 1) are expected to deliver a set of complementary results embracing three categories of priorities identified by the Transboundary Diagnostic Assessment (TDA) for the Mediterranean Sea which are translated into three components of the programme: i) Reduction of Land-Based Pollution in Priority Coastal Hotspots and measuring progress to impacts; ii) Enhancing Sustainability and Climate Resilience in the Coastal Zone; and iii) Protecting Marine Biodiversity.

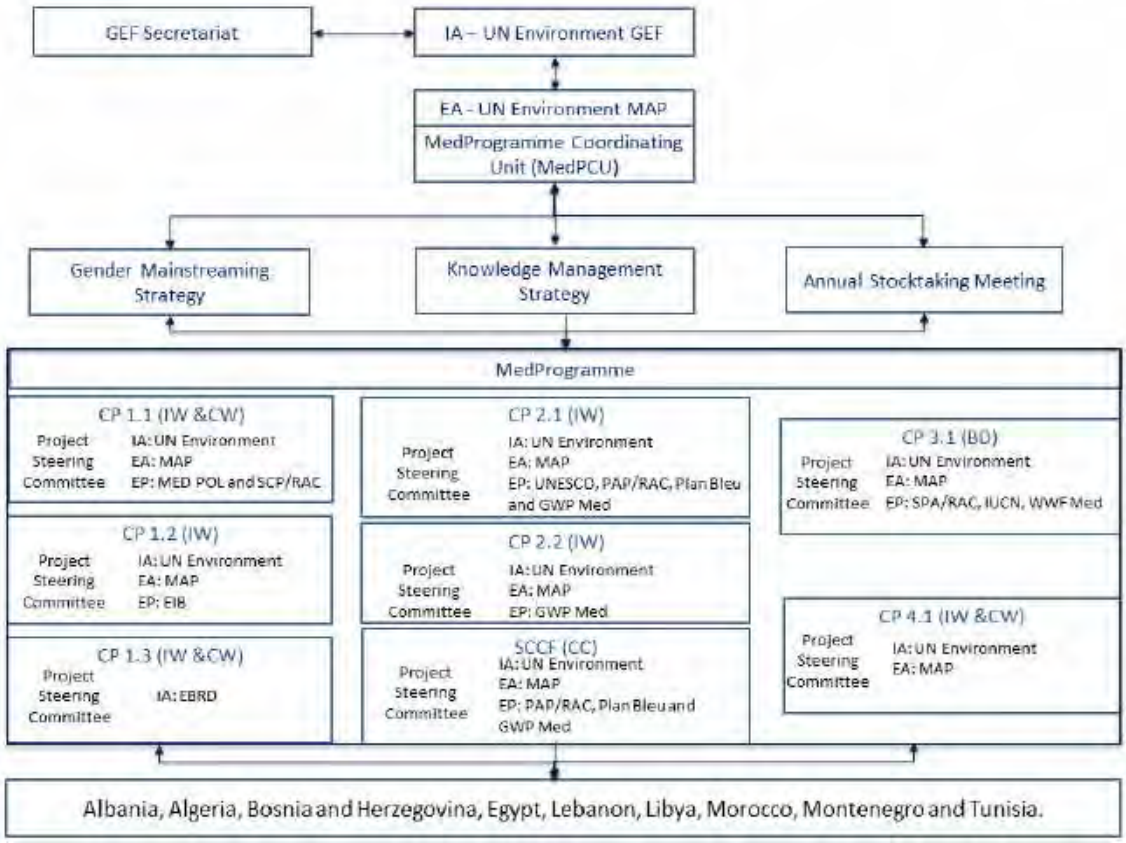


Figure 1: MedProgramme Structure

project would be managed for all intents and purposes as an additional Child Project of the MedProgramme. Hence the reference to eight Child Projects of the MedProgramme.

[10] More info on MedPartnership, ClimVar and ICZM (Integration of climatic variability and change into national strategies to implement the ICZM Protocol in the Mediterranean) projects: http://www.themedpartnership.org/, https://iwlearn.net/iw-projects/2600 and https://iwlearn.net/iw-projects/3990.

The fourth component (Knowledge Management and Programme Coordination) is comprised of Child Project 4.1 "*Mediterranean Sea LME Environment and Climate Regional Support Project*" which plays a key role within the MedProgramme as it "implements mechanisms for Programme-wide learning and dissemination of knowledge, monitoring the Programme's progress to impacts, and fostering synergistic interactions among Child Projects". Within the GEF programmatic approaches there is a need to ensure programme coherence and impact through coordination among diverse sets of multi-focal area Child Projects contributing to the same programme outcomes. The Support Project functions as a common link among Child Projects by providing overall coordination of the programme portfolio, resource-saving services, a robust system to managing knowledge effectively and a sound action plan for gender mainstreaming.

Table 1: MedProgramme Components, Child Projects and GEF Focal Areas

Mediterranean Sea Programme (MedProgramme)		
MedProgramme Component	**Child Project**	**GEF Focal Areas**
1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and measuring progress to impacts.	1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts"	IW and CW
	1.2 "Mediterranean Pollution Hot Spots Investment Project"	IW
	1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"	IW and CW
2. Enhancing Sustainability and Climate Resilience in the Coastal Zone.	2.1 "Mediterranean Coastal Zones Climate Resilience Water Security and Habitat Protection"	IW
	2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem NEXUS"	IW
	SCCF "Enhancing regional climate change adaptation in the Mediterranean Marine and Coastal Areas"	CC
3. Protecting Marine Biodiversity	3.1 "Management Support and Expansion of Marine Protected Areas in Libya"	BD
4. Knowledge Management and Programme Coordination	4.1 "Mediterranean Sea Large Marine Ecosystem Environment and Climate Regional Support Project"	IW and CW

In this context, Child Project 1.2 "Mediterranean Pollution Hot Spots Investment Project" will generate major innovative investments in Mediterranean coastal areas at risk of groundwater over-exploitation, loss of coastal habitats and eutrophication, in line with National Action Plans (NAPs) for the implementation of the SAP-MED on land based pollution reduction, and consistent with priorities and coastal management strategies emerging from the results of the MedPartnership. The infrastructure improvements promoted by the project will also contribute to the supply of additional, reliable sources of water that can be used in agriculture and/or forestry, thus reducing the pressure on the region's already scarce water sources. GEF funding will support the selection and design of the investments, and the capacity building related to them. The investments at national level will focus on WWTP Extension and upgrade including treated wastewater reuse/reinjection (MAR) and depollution catchment area which will take a holistic approach to the depollution and water resources management at the level of catchments which are draining into the Mediterranean, in order to improve the human and environmental and health situation and reduce the contaminants loads entering the Mediterranean Sea. Three countries (Egypt, Lebanon and Tunisia) were selected for national interventions based on a number of factors such as the willingness and readiness of the countries to implement investments targeting the depollution of the Mediterranean, the maturity level of the proposed investments and, finally,

EIB's prior presence and experience in the country that would facilitate the implementation of both the studies to be prepared and the potential subsequent investments.

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF[11]

A.1. *Project Description*. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area[12] strategies, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and co-financing; 5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

An important change from the Programme Framework Document (PFD) relates to the breakdown of activities and subsequent disposal targets between the original Chemicals and Wastes Child Projects under the MedProgramme, namely the current Child Project 1.2 and Child Project 1.1 (Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts).

At PFD stage, it was envisaged that Child Project 1.2 would reduce 20 tonnes of mercury through investment activities by the European Investment Bank (EIB) in former Chlor Alkali manufacturing plants in Kasserine (Tunisia), and the closure of the operational Chlor Alkali plant owned by Coelma (Morocco). Feasibility assessment activities led by the EIB under Child 1.2 concluded that foreseen investment activities were not viable. As such Child 1.2 will proceed with the International Waters investment activities only. To ensure the Programme meets its overall mercury reduction target, the Chemicals and Wastes budget from Child 1.2, together with the 20 tonnes reduction of mercury target, has been transferred to the Child Project 1.1. The Programme Framework Document was approved under GEF 6, when the Minamata Convention was not yet in force. Therefore, the participating countries identified in the PFD for this Child Project are all eligible for mercury funding even if they are not yet Parties to the Convention at the time of submission of the CEO Endorsement Request. Baseline research indicated it may not be possible to reach the combined target of 50 t of metallic mercury in the countries that have signed/ ratified Minamata Convention; so the scope has broadened to include mercury contaminated wastes, and two countries which are as yet not Party to the Minamata Convention but are anticipated to become Parties during the course of the project.

The project is submitted with a co-financing commitment of 733,451,400 USD. This pledge is sensibly higher than the one indicated in the PFD, i.e. greater than 510,000,000 USD. The higher level of co-financing is due to a thorough consultation with the countries and executing partners which was made during the preparation phase of Child Project 1.2 to identify all the initiatives, projects, investments and strategies ongoing at the national and regional levels which would contribute to the achievement of the goals of Child Project 1.2 at national level in Egypt, Lebanon and Tunisia.

Co-financing commitments have been received from the three countries where national activities will take place (Egypt, Lebanon and Tunisia) and by European Investment Bank. The co-financing commitment will be reviewed and updated consistently during the inception phase of the MedProgramme to be submitted to for consideration to the first Steering Committee Meeting of Child Project 1.2.

1A). PROJECT DESCRIPTION

1) THE GLOBAL ENVIRONMENTAL AND ADAPTATION PROBLEMS, ROOT CAUSES AND BARRIERS THAT NEED TO BE ADDRESSED

The TDA for the Mediterranean Sea of 2005 (Table 2) identified and analyzed in some detail the major environmental concerns in the Mediterranean Sea:

[11] For questions A.1 –A.7 in Part II, if there are no changes since PIF, no need to respond, please enter "NA" after the respective question.

[12] For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which Aichi Target(s) the project will directly contribute to achieving.

- decline of biodiversity due to conversion and degradation of critical habitats, introduction of alien species, pollution in the form of excess nutrients and toxic wastes;
- decline in seawater quality due to inadequate sewage treatment, lack of application of best practices in the agricultural use of fertilizers and pesticides, inadequate controls on atmospheric emissions of heavy metals and persistent organic pollutants, inadequate discharge control for industries bordering the sea;
- human health risks due to exposure to POPs, the consumption of contaminated seafood, direct and indirect contact with seawater that is contaminated with pathogens and/or viral agents;
- degradation of coastal ecosystems and loss of related services due to growing demographic pressure and unregulated coastal development.

Ten years later, in response to the growing realization of their important role in determining present and future conditions of the Mediterranean region, the impacts of Climate Change and Variability and of the degradation of Coastal Aquifers were the subject of one TDA Supplement. These results add new perspectives to the overall diagnostic of the current state of the Mediterranean Sea and its coastal areas to guide future remedial and adaptation actions.

Table 2 Overview of the findings of the 2005 TDA of the Mediterranean Sea LME

Mediterranean Sea LME - Transboundary Diagnostic Analysis		
Major Environmental Concerns	**Statement of the causes**	**Main Issues of Transboundary Concern**
Decline of Biodiversity	Pollution (sewage, oil, nutrients, etc.), invasive species, introduced species, land reclamation, river damming and flow modification, over-fishing, by-catch, and adverse effects of fishing gear and uses on marine habitats (e.g. bottom trawling), solid waste disposal at sea, uncontrolled tourist presence in ecologically sensitive areas, as well as inadequate public and stakeholders awareness, and inadequate or non-existent legislation and available enforcement means.	Land Based Pollution Degradation and Conversion of Critical Habitats: Sea Grass Meadows; Coastal Wetlands and Lagoons Overexploitation of Marine Living resources Alien Species Introduction
Decline in Sea Water Quality	Land based sources of marine pollution, both point and non-point, determine increasing trends in eutrophication and its related oxygen deficiency and bloom of nuisance species; presence of hot spots of pollution (125 identified by TDA) leading to decline in overall water quality, loss of coastal habitats and biodiversity, and human health problems.	Land Based Pollution: (i) Point Sources (excess nutrients, toxics and PTS). (ii) Non-Point Sources (mostly nutrients from agriculture, and sediments). Anthropogenic Pressures on Coastal Zones
Human Health Risks	Pollutants that degrade the ecosystem also present risks to human health, including heavy metals, organochlorines, pesticides, hydrocarbons, and the like, but also microbial and viral pollution. In addition, the response of the ecosystem to stress may induce toxicity, such as toxic dinoflagellates that arise from eutrophic conditions in some instances. This may affect human health in the region. Primary pathways for human health risks include ingestion of water or seafood products, contact with contaminated seawater (or in some cases beaches), and perhaps contact with contaminated seafood (for marine products workers).	Land Based Pollution Anthropogenic Pressures on Coastal Zones
Degradation of	Degradation and loss of coastal freshwater resources,	Anthropogenic Pressure on Coastal Zones

coastal ecosystems	and of coastal ecosystem services due to growing population pressure and unregulated costal development.	Impacts of Climate Variability and Change

2A) THE BASELINE SCENARIO: REGIONAL LEVEL

Nutrients and wastewater in the Mediterranean Sea basin

With a typical tidal range of less than 50 cm, the Mediterranean Sea is microtidal. This reduces the potential for dilution and dispersion of dissolved and particulate wastes. It is also one of the most oligotrophic (i.e. poor in nutrients) oceanic systems and is characterized by an eastwards longitudinal gradient in this oligotrophy. The main source of nutrients in the Mediterranean lies in the inflowing Atlantic surface waters at the level of the Gibraltar Strait. These inflowing waters flow eastward along the African coasts in the western Mediterranean, then cross the Sicily Strait and continue their flow again along the northern African coasts. As the waters move eastwards from the Gibraltar Strait, they become depleted in nutrients. By the time they reach the Egyptian coasts, their nutrient signature has almost disappeared. Additionally, the Nile River nutrient signature has disappeared due to the 1960s Nile Dam construction. All this contributes towards making the Levantine Basin (at the eastern part of the Mediterranean Sea) one of the most oligotrophic areas in the world ocean. Additional sources of nutrients exist in the Mediterranean, but these are localized and have rather small impacts. One is the outflow of Black Sea surface waters into the Aegean, which have an influence limited to the north Aegean; a second source is the Po River, emptying into the Adriatic on its western coast. The most eutrophic waters in the western basin are located on the north shore, at the mouth of the large rivers Rhone and Ebro.

Riverine nutrient inputs are relatively low, as most river systems discharging in the Mediterranean Sea are small. High nutrient inputs to small rivers may be important in most North African oueds, as they collect nutrient-rich effluents in large quantities. In these rivers/oueds, metals, nitrates and organic carbon reach concentrations that could affect biological populations after heavy rains following dry periods. The unique biogeochemical characteristics of the Mediterranean Sea determine the fate of physicochemical and biological cycles affecting all aspects of ecological processes. Primary production and phytoplankton biomass are reduced, due to the oligotrophic nature of the basin, giving rise to clear and transparent coastal and marine waters. Primary productivity at local scale is also controlled by factors other than limited nutrient input, including stratification of the water column, transparency and surface currents. Eutrophication is very common in sheltered marine waterbodies, such as harbors and semi-enclosed bays along the Mediterranean coast, mainly in the vicinity of coastal towns subject to untreated or partly treated urban effluents containing significant loads of nutrients and suspended matter (degradable or inert).

The discharge of untreated municipal wastewater in coastal areas or rivers flowing into the Mediterranean Sea remains a major environmental issue in most southern and eastern Mediterranean countries and, therefore, constitutes one of the key environmental challenges. Municipal wastewater carries high loads of nutrients (nitrogen and phosphorus), pathogens and microorganisms (including coliforms, fecal streptococci, and salmonellae) posing direct or indirect risks to human health and well-being. In cities with intense industrial activity, municipal wastewater discharged directly into public sewerage systems generally contains a variety of chemical wastes: total dissolved solids, ions (such as sodium, calcium and magnesium), organic compounds (such as phenols, pesticides and chlorinated hydrocarbons) and metals (such as cadmium, zinc, nickel, and mercury). These substances are of concern due to their toxicity, bio-accumulation and their resistance to conventional wastewater treatment methods. The provision of wastewater treatment varies across the region, but in many cases treatment plants are often absent or do not function optimally. Recently, several inventories of municipal wastewater treatment facilities in Mediterranean countries have been published (MAP Technical Report Series No 157, 2004; UNEP/MAP, 2011; UNEP (DEPI)/MED WG.357/Inf.7). These studies provide information on the population served by wastewater treatment plants (WWTPs), the degree of the treatment provided, quantities of wastewater produced and disposal alternatives. The most recent inventory (UNEP/MAP/MED POL, 2011) also considers several cities with a population of greater than 2,000 inhabitants that discharge their municipal wastewater (treated or untreated) into major rivers. Wastewater produced from the cities located in the catchment area of a river draining into the Mediterranean Sea will eventually end up in the sea, thus indirectly contributing to the pollution of the marine environment, and in some cases leading to eutrophication. In 2009, the Contracting Parties to the Barcelona Convention adopted the Regional Plan on the reduction of BOD_5 from urban wastewater in the

framework of the implementation of Article 15 of the LBS Protocol to set requirements and identify measures regarding the treatment and discharge of urban wastewaters (Box 1).

Box 1 Mediterranean Regional plan on BOD_5 from wastewater treatment plants (COP 16, 2009)

The establishment of wastewater treatment plants in all cities around the Mediterranean Sea with more than 100,000 inhabitants and appropriate outfalls and/or appropriate treatment plants for all cities with more than 10,000 inhabitants are amongst the targets of the Genoa Declaration (1985) approved by the Contracting Parties to the Barcelona Convention. In addition, the Contracting Parties adopted in 2009 Decision IG.19/7 "Regional Plan on the reduction of BOD_5 from urban wastewater in the framework of the implementation of Article 15 of the LBS Protocol". This Regional Plan shall apply to the collection, treatment and discharge of urban wastewater with the objective to protect the coastal and marine environment and health from the adverse effects of the direct and indirect wastewater discharges, in particular adverse effects on the oxygen content of the coastal and marine environment and eutrophication phenomena. It obliges the Mediterranean countries to ensure a sewage collection system for cities with more than 20,000 population equivalent and/or economic activities are sufficiently concentrated for urban wastewater to be collected and conducted to an urban wastewater treatment plant or to a final discharge point.

A number of measures have been defined:

1. The Parties shall ensure that all agglomerations collect and treat their urban wastewaters before discharging them into the environment using collecting systems that satisfy defined requirements;

2. The Parties shall adopt National BOD_5 Emission Limit Values (ELVs) for urban wastewaters after treatment (i.e. maximum allowable concentration of BOD_5 to be finally discharged from WWTP to the receiving water environment);

3. The Parties shall ensure that the characteristics of collected and treated urban waste waters shall, before discharge in the environment, be in accordance to provisions on prescribed ELVs.

The progress in municipal wastewater management is difficult to assess, as the data available do not provide sound evidence or trends at the regional level. In general terms, an increase in the volume of wastewater collected and treated is observed in those countries for which data is available. This increase does not only cover the concurrent population growth but also contributes to the relative improvement of the wastewater management practices in the region. However, it is not possible to confirm whether these trends are the result of increased data coverage or the result of heavy investments in wastewater treatment contributing towards social and economic development or a combination of both. There is strong indication that inhabitants and ecosystems in coastal watersheds draining into the marine environment are the most severely impacted by the lack of appropriate sanitation systems. Although local improvements have been observed, it is difficult to assess the progress at the regional scale. Over the last few decades, the eastern and southern Mediterranean countries have responded to water scarcity by investing heavily in infrastructure, including in projects on wastewater, which is now recognized as a very important resource. According to the European Investment Bank (EIB), between 2003 and 2008, EUR 692 million was provided in loans through the Facility for Euro-Mediterranean Investment and Partnership (FEMIP) to support access to water resources and to tackle the most significant pollution sources of the Mediterranean. The financial capacity of the public sector in most countries is limited and unable to provide the necessary resources for investing in water (UNEP, 2010). For this reason, countries like Morocco and Algeria are increasingly engaging in public/private partnerships (PPPs) for various water projects: upgrading and managing drinking water networks and sewage systems and constructing wastewater treatment plants (WWTPs). These investments, however, have not always been accompanied by the necessary institutional and policy changes, and often do not generate optimal economic returns.

Impacts of climate change and variability

The Mediterranean Sea region has been identified as one of the main climate change global hotspots (i.e. the areas most responsive to climate change). The recent IPCC Fifth Assessment Report (2013-2014), considers the Region as “highly vulnerable to climate change”, also mentioning that it “will suffer multiple stresses and systemic failures due to climate

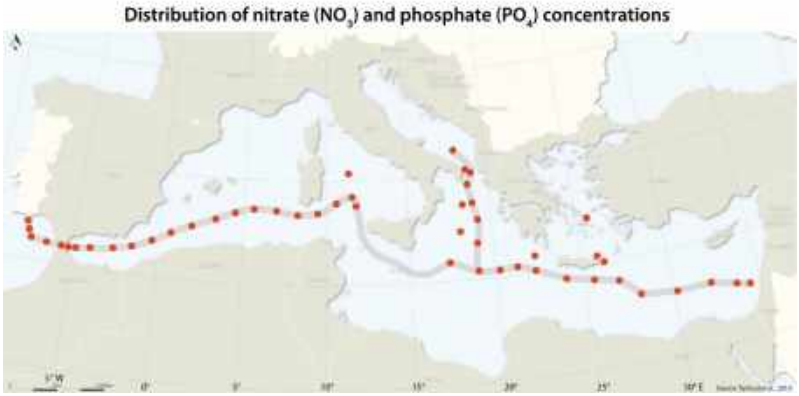
changes". Physical changes in the Mediterranean climate have been widely observed and such trends are projected to continue in the future. Major changes are related to an exceptionally high temperature increase compared to the European and global average, in the range of 2°C to 6.5 °C by the end of the century. This is expected to be accompanied by a particularly large decrease in annual mean precipitation especially in summer and an increase in evaporation. A rise of 7 to 12 cm in the overall level of the Mediterranean Sea, compared to the past decades, is projected by 2050, with larger sea rise occurring on eastern and southern Mediterranean coasts (the IPCC predicts a sea-level rise of 0.1–0.3 m by 2050 and of 0.1–0.9 m by 2100, with significant impacts on the southern Mediterranean region). Climate change hazards are coupled with existing socio-economic processes associated with growing bio-geographical vulnerability and exposure in coastal areas of the Mediterranean region. One of the primary climate change impacts is on water resources and their availability for the main economic sectors and dependent ecosystems. The increase of water stress also adversely affects coastal communities that depend on these vital resources for sustenance and may not afford to cope with the economic shocks brought on by water scarcity. Situations of water scarcity further in combine action with expected climate change- related phenomena will lead to reduced runoff and groundwater recharge and consequently to diminished water quality and quantity in some countries. Lower precipitation and increasing temperatures in the southern and eastern Mediterranean will exacerbate aridness, land degradation and desertification. Sea-level rise and storm-related floods will make low-lying zones and coastal activities increasingly vulnerable to submersion and beaches vulnerable to erosion. Mediterranean coasts are highly urbanized, and due to the high predominance of summer tourism, most of the touristic facilities tend to locate as close to the sea as possible. Rising sea levels may endanger a high portion of the coastal facilities including adjacent infrastructure. Losses of coastal and marine habitats and ecosystems are also largely implied. Economic loss due to lower tourism will significantly impact the region and especially women as their traditional and cultural gender roles heavily rely on steady water access. This might be exacerbated by the impact of climate change that will also affect education, traditional gender roles, sanitation, etc.

Regional standards

The existing region-wide environmental guidelines and standards on wastewater and sludge management, aquaculture and desalination are not comprehensive. As shown by recent Barcelona Convention (BC) assessments, the existing regional measures, including standards and guidelines on the said activities and sectors, are not sufficient to achieve Good Environmental Status (GES) of the Mediterranean Sea and coast as the ultimate objective of the BC's implementation of the Ecosystem Approach (EcAp). In 2017, the UN Environment Mediterranean Action Plan (MAP) published the first assessment – Mediterranean 2017 Quality Status Report (QSR) – on the status of the marine and coastal environment in relation to GES for various EcAp ecological objectives (EOs), based on the available results of Integrated Monitoring and Assessment Programme (IMAP). Despite data and knowledge gaps highlighted in the 2017 QSR, some important conclusions were drawn, including recommendations that further regional measures are needed to control pollution from priority activities and sectors (land and sea-based). The key pollution-related findings of the 2017 QSR are presented in Box 2 (for ecological objectives on eutrophication and contaminants). Regional standards to regulate emissions of key pollutants have been progressively developed in the framework of BC Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol), primarily as a part of legally-binding Regional Plans (RPs). An overview of these instruments is presented in Table 3.

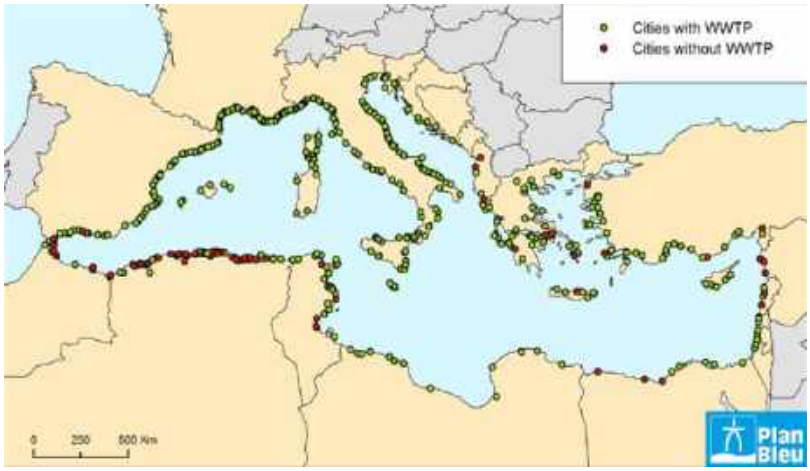
Box 2 The key findings of the 2017 Quality Status Report

In the Mediterranean area eutrophication is caused by both regional sources such as urban effluents, industrial discharges, and aquaculture activities as well as transboundary components such as agricultural runoffs, riverine outflows, and airborne nutrient deposition. The main coastal areas in the Mediterranean which are historically known to be influenced by natural and/or anthropogenic inputs of nutrients are the Alboran Sea, the Gulf of Lions, the Gulf of Gabès, the Adriatic Sea, the Northern Aegean and the SE Mediterranean Seas (Nile–Levantine).



The offshore waters of the Mediterranean have been characterized as extremely oligotrophic with a clear gradient towards the east (based on Turley 1999). The gradient is illustrated (figure on the left-) based on data collected during the Meteor. *M84/3 cruise (based on Tanhua et al. 2013).*

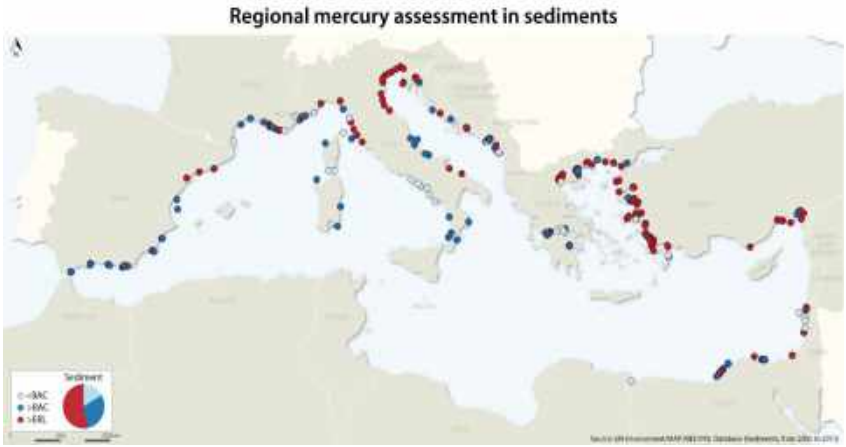
Wastewater treatment along the Mediterranean coasts in 2010



A significant improvement with development of wastewater treatment plants (WWTPs) was seen over the period 2004 – 2010.

In 2010, around one-fifth of the coastal cities with population above 100,000 inhabitants was without wastewater treatment. The share of cities with population between 10,000 and100,000 inhabitants without wastewater treatment was assessed at around one-quarter (illustration on the left).

Pollution assessment against environmental assessment criteria (EACs) was carried out for the first time in the framework of the 2017 QSR for concentration of key harmful contaminants measured in the relevant matrix (biota, sediment, seawater). Notwithstanding certain shortcomings (including the need to further improve and fine-tune assessment metrics and take into account sub-regional differences in the Mediterranean Sea), the assessment indicated generally acceptable levels of heavy metals assessed from bivalves and fish, with lead having values above threshold for 10% of stations.



The assessment highlighted differences between biota and coastal sediments conditions, whereas historical heavy metal pollution impacted the sediments close to known hotspots (both industrial and natural geological point sources). In terms of GES, the sediment assessment showed an impacted situation for the coastal benthic ecosystem, especially for mercury (HgT).

The main recommendations based on these assessment results are that measures and actions should focus on

historically known hotspots associated to urban and industrial areas along coasts of the Mediterranean Sea, as well as to include sea-based sources, as these also represent important contributors to chemical pollution. Riverine inputs and coastal diffuse run-off have a significant role as well.

Sources: UN Environment/MAP Mediterranean 2017 Quality Status Repot and EEA/ UNEP MAP (2015) joint report "Horizon 2020 Mediterranean report: toward shared environmental information systems"

Table 3 Regional Plans adopted in the framework of the LBS Protocol setting out management standards for some of the key pollutants

Year of adoption	BC Conference of Parties (COP) Decision/ title of the Regional Plan
2009	Decision IG.19/7 Regional Plan on the reduction of BOD_5 from urban waste water.
	Decision IG.19/8 Regional Plan on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene.
	Decision IG.19/9 Regional Plan on the phasing out of DDT.
2012	Decision IG.20/8.1 Regional Plan on the reduction of inputs of Mercury.
	Decision IG.20/8.2 Regional Plan on the reduction of BOD_5 in the food sector.
	Decision IG.20/8.3 Regional Plan on the **phasing out of Hexabromodiphenyl ether, Heptabromodiphenyl ether, Tetrabromodiphenyl ether and Pentabromodiphenyl ether.** **Regional Plan on the phasing out of Lindane and Endosulfan.** **Regional Plan on the phasing out of Perfluorooctane sulfonyl acid, its salts and Perfluorooctane sulfonyl fluoride.** **Regional Plan on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, Pentachlorobenzene.**
2013	Decision IG.21/7 Regional Plan on Marine Litter Management in the Mediterranean.

Wastewater treatment is regulated under BC Regional Plans on reduction of BOD_5 from urban wastewater and from certain food sector industries, whereas there are no specific provisions related to sludge management. Some general provisions on the wastewater collection systems are also included in the RP on marine litter, calling upon the Contracting Parties to take necessary measures (by the year 2020) 'to establish as appropriate adequate urban sewer, wastewater treatment plants, and waste management systems to prevent run-off and riverine inputs of litter'. Other BC Regional Plans and the LBS Protocol address pollution from various substances/ contaminants, including persistent organic pollutants (POPs) and mercury.

The RP on reduction of BOD_5 from urban wastewater (UWW) requires the Parties to ensure collection and treatment for all the agglomerations in the Mediterranean basin, whereas agglomerations are defined as areas where more than 2,000 inhabitants and/or economic activities are sufficiently concentrated for collection and treatment of wastewater. In designing and constructing wastewater collection systems, the best technical knowledge regarding the volume and characteristics of UWW, maintenance of piping system and of pumping equipment as well as separation of storm water (when applicable) need to be considered and applied. The Plan also calls for:

- Adoption of national emission limit values (ELVs or maximum allowable concentrations of BOD_5 in treated wastewater prior to discharge into environment);
- Ensuring that characteristics of treated UWW meet the requirements of the following regional ELVs on BOD_5 (at 20°C without nitirification) for the effluents from each wastewater treatment plant (WWTP):

- ≤ 50 mg/l O_2 for secondary treatment,
- ≤ 200 mg/l O_2 for primary treatment.

The RP on reduction of BOD_5 from UWW considers only primary and secondary treatment. It does not mention tertiary treatment, or reuse of wastewater. Moreover, the Plan does not contain provisions related to marine litter and plastics inputs through wastewater collection and treatment systems (whereas this is in broad terms addressed in the RP on marine litter).

The RP on the reduction of BOD_5 in the food sector refers to food industries (including: dairies; fruit and vegetable processing; breweries; wineries and distilleries; fish processing; sugar manufacturing; vegetable oil processing; canning and preserving; and meat processing and slaughtering) discharging more than 4,000 population equivalent (p.e.). The main requirement is for regulated industries to reduce their pollution load through application of best available techniques (BAT) or best environmental practices (BEP) to comply with the following ELVs (when wastewater is discharged directly into recipient water bodies):

- Chemical oxygen demand (COD) of 160 mg/l, or
- Total organic carbon (TOC) of 55 mg/l;
- Biochemical oxygen demand BOD_5 (or BOD_7) of 30 mg/l.

In case of discharges into sewerage systems, appropriate ELVs need to be set by competent authorities.

The 2017 QSR findings confirmed the existing requirements were insufficient and should be expanded to address parameters such as total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS), especially for the areas with risks of eutrophication.

Moreover, the lack of pre-treatment standards for industries/sectors discharging to the municipal sewerage system represents a problem since discharges of untreated industrial wastewater may lead to serious malfunctioning of biological urban wastewater treatment plants, causing management problems and increased cost of maintenance.

Management of sludge is not regulated under the existing RPs. On the other hand, recent experiences (as for example outlined in the updated National Action Plans – NAPs – developed under the LBS Protocol) highlight management of sludge as an emerging issue and a key priority in the Mediterranean. Dumping of sludge at sea is prohibited. At the same time, there is an evident lack of regional guidance on disposal alternatives, including use of sludge as a soil additive, for energy production and incineration.

Overall, there is growing evidence that RPs on reduction of BOD_5 are not sufficient to address the pressing environmental and water management priorities in the region and deliver GES, and that there is a need for a more appropriate set of regional standards and approaches addressing both EcAp and resource efficiency objectives, considering new technological developments and best practices.

One of the key findings of the UN Environment/MAP Analysis of Existing Regional Measures and of the Needs for New/Updated Regional Measures to achieve Good Environmental Status of the Mediterranean (UNEP(DEPI)/MED WG.444/3) was that direct (untreated) or inadequately treated discharges of wastewater represent a problem in the Mediterranean. More specifically, the following gaps (in relation to the achievement of GES) were identified:

- Despite the existing measures providing for the establishment of WWT systems in all agglomerations, there are many coastal cities without WWTPs;
- At the regional level, 21% of treated wastewater receives only primary treatment, while only 8% is subject to tertiary treatment;
- Treatment systems need to be improved based on new technologies, i.e. extraction of nutrients for production of fertilizers, and use of sludge for production of energy;
- New measures should provide for application of pre-treatment technologies;

- Revised standards and limits to assess and tackle overcapacity and malfunctioning of WWTP should be adopted;
- There are no efficient measures for sludge management;
- There are gaps in storm water management, with very limited use of green infrastructure and nature-based solutions.

In 2017, Updated Guidelines on the Management of Desalination Activities (Decision IG.23/13) were adopted by the BC Contracting Parties. The reasons that have led to development of this and an earlier MAP technical report include the fact that the installed desalination capacity in the Mediterranean tripled over the period 2003 – 2013. Most of the desalination plants around the Mediterranean are concentrated along the southern and eastern shores and in Spain, corresponding with pronounced water scarcity in these regions. In 2013, there were over 1,532 seawater desalination plants around the Mediterranean Sea with a total cumulative installed capacity of about 12 Mm^3/day. Seawater desalination by reverse osmosis accounted for around 80 % of the production. Nearly all the desalinated water produced is consumed as drinking water (based on Khordagui 2013).

The updated Guidelines aim to provide up-to-date guidance in identifying, assessing and controlling potential impacts of desalination on the marine and coastal environment. The Guidelines address the main environmental impacts of seawater desalination, mainly related to intake of seawater and discharge of brine, while also identifying key emerging contaminants. They also include updated provisions on Environmental Impact Assessment, on BAT and BEP. Moreover, the Guidelines provide detailed information for environmental monitoring, both during the construction phase and following the start of operation, taking into account IMAP requirements. Nevertheless, a comprehensive response to growing pressures from desalination requires further regional cooperation to identify best practices and develop performance criteria and standards for planning and operation of desalination plants.

According to the General Fisheries Commission for the Mediterranean (GFCM), Mediterranean marine aquaculture production has shown a staggering positive trend during the last twenty years. This expansion causes a number of environmental and socioeconomic issues that may compromise its sustainability and further development, including competition for space with other sectors and activities. In this respect, GFCM highlights the lack of a regulatory framework and of criteria for planning and implementation of environmental monitoring programmes as additional elements that limit potential for development of sustainable aquaculture. In addition, lack of regional cooperation in addressing transboundary issues and the poor harmonization of norms and standards contribute to the increasing difficulty to monitor interactions between aquaculture impacts at local and regional scales[13].

The BC legal framework does not entail any specific legal instruments, nor does it detail any standards pertinent to aquaculture management. The sector is, however, included in the LBS Protocol list of sectors of activity (Part A) which are ‘to be primarily considered when setting priorities for the preparation of action plans, programmes and measures for the elimination of the pollution from land-based sources and activities'.
The GFCM guidelines adopted since 2012, as laid out in:

- Resolution GFCM/36/2012/1 on guidelines on allocated zones for aquaculture (AZA), and
- Resolution GFCM/41/2017/2 on guidelines for the streamlining of aquaculture authorization and leasing processes.

[13] In setting out the *Strategy for the Sustainable Development of Mediterranean and Black Sea Aquaculture,* the GFCM concludes aquaculture impacts on the environment at the local scale could influence negatively the ecological services provided by the environment and have an effect at wider scales.

are pertinent for the Mediterranean. The same applies for the Food and Agricultural Organization (FAO) Technical Guidelines for Responsible Fisheries 5, Supplement 4 titled "Aquaculture Development: ecosystem approach to aquaculture".

Significant gaps (i.e. insufficient regulation of aquaculture) were identified in the UN Environment/MAP analysis of regional measures (UNEP(DEPI)/MED WG.444/3), and a recommendation was drawn that stricter technical guidelines and management standards, or even a new Regional Plan, were needed to tackle inputs from aquaculture. The purpose of a new regional approach to aquaculture management would be to ensure adequate planning and sustainable development, and minimization of environmental impacts. Moreover, a need to promote nutrient balanced aquaculture was emphasized.

More specifically, the current gaps in regulation of aquaculture include elimination/reduction and monitoring of the wastes with insoluble or soluble character (organic carbon, nitrogen and phosphorus and their fractions) from aquaculture facilities which are formed by excess feed, excrement and excretion products. Development/guidance on an integrated monitoring framework, in line with IMAP, is essential to monitor pollution in aquaculture areas focusing on their effects on not only changes in water quality parameters but also changes in benthic flora and fauna which causes habitat change and increases the eutrophication risk.

Related current or planned baseline project and activities include:

- UN Environment/MAP: in line with the 2016 – 2021 Mid-term Strategy and Programme of Work 2018 – 2019, MAP is working on the identification and negotiation of regional programmes of measures for pollutants/categories (sectors) showing increasing trends, including the revision of existing regional plans and areas of consumption and production; preparation of six new/updated Regional Plans has been initiated in 2018.
- GFCM: under the Strategy for the Sustainable Development of Mediterranean and Black Sea Aquaculture, one of the priority activities is the preparation and dissemination of a toolkit for the harmonization on minimum common criteria on allowable zones of effects (AZE) and environmental quality standards (EQS); the activity is also expected to lead to an update of the minimum standards and requirements for environmental monitoring.

The existing Regional Plans and Guidelines on wastewater management and desalination were developed, negotiated and adopted in the framework of the UN Environment/ MAP and Barcelona Convention governing bodies.

The MAP acts as the Convention Secretariat and comprises Coordinating Unit (with a mandate to promote and facilitate the implementation of the BC, its Protocols and Strategies, and of the Decisions and Recommendations of the Contracting Parties) and MAP components, including the Mediterranean Pollution Assessment and Control Programme (MED POL), the Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC), the Plan Bleu Regional Activity Centre (PB/RAC) and other centres.

MED POL's main objectives are to contribute to the prevention and elimination of land-based pollution and to assist the Contracting Parties to meet their obligations under the Convention, relevant Protocols and other legally binding instruments (such as the Regional Plans), and to achieve GES (related to pollution, marine litter and noise ecological objectives). Plan Bleu's mandate is predominantly linked to the assessments of the state of the environment and development in the Mediterranean, while SCP/RAC works with the Contracting Parties on pollution prevention and sustainable management of resources based on the Sustainable Consumption and Production integrated approach. The work of the MAP and its components is conducted in synergy with a wide range of partners and various Mediterranean stakeholders.

The 22 BC Contracting Parties decide on the MAP policies, strategies and operational matters at their Ministerial meetings held every two years. A rotating Bureau of six representatives of the Contracting Parties provides guidance on the implementation of MAP's mandate in the interim. The MAP and components' Focal Points networks also play an important role in the process of development of regional policies; national institutions such as environment ministries, environmental protection agencies and related institutions act as the MAP/ components' Focal Points (more details on national and regional stakeholders in Annex S). The Implementation of the Ecosystem Approach (EcAp) is guided by the Coordination Group and Correspondence Groups on Monitoring.

The General Fisheries Commission for the Mediterranean (GFCM) works on harmonization of norms and standards and development of adequate legal framework for sustainable aquaculture development. GFCM is a regional fisheries management organization established under the UN Food and Agriculture Organization (FAO), which aims (as far as fisheries and aquaculture are concerned) to strengthen global governance and the managerial and technical capacities of members and to lead consensus-building towards improved conservation and utilization of aquatic resources. The main objective of the GFCM is to ensure the conservation and the sustainable use, at the biological, social, economic and environmental level, of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea. The Commission is currently composed of 24 members and three cooperating countries (non-parties).

2B) THE BASELINE SCENARIO: HOTSPOTS IN PROJECT COUNTRIES

Annex T provides detailed information about the baseline scenario in 3 countries where several hotspot of interventions have been identified in the Mediterranean NAPs and included in the pipeline of investments of EIB.

ALEXANDRIA AND NILE DELTA COAST IN EGYPT

The Mediterranean coast of Egypt spreads over 1,150 km in the southeast portion of the Mediterranean Sea. The coastal area is characterized by the presence of some pocket beaches and lagoons, where most cities are located, and eight calcareous ridges nearly parallel to the shoreline. Pollution hotspots on the Egyptian coast were identified in the updated NAP of 2015 (Figure 2). Three of the hotspots, Lake Maryut, El Mex Bay and Abu Qir Bay, are located close to Alexandria, on the west side of the Rosetta branch of the River Nile. Lake Manzala and Lake Burullus, are located within the Nile Delta. The high pollution levels at these hotspots are the result of a variety of wastes generated from human activities, including agricultural waste, solid waste and industrial discharges. However, a significant part of the problem is the discharge of untreated or partially treated domestic wastewater (sewage) in the canals that flow into these hotspots. In the past decades, the Government of Egypt had given high priority to the provision of piped water supply to both urban and rural areas, however, improvement in the wastewater collection and treatment coverage has lagged far behind. Just over 50% of the urban population has access to sewerage services, while the corresponding statistic for rural areas in 2014 was less than 10%. Inadequate sanitation services are a major contributor to the deterioration of both the natural and built environments of the country. The rural populations living in unserved areas continue to rely on traditional cesspool (bayara) evacuation systems, which are failing, particularly in the Nile Delta, due to continuously rising subsurface water levels. As a result, large amounts of untreated wastewater are disposed of directly into the environment, contributing to groundwater and surface water pollution. Deteriorating water quality in some drains, due to unregulated wastewater discharge, along with the added burden of uncontrolled agricultural and industrial discharges and solid waste, are seriously undermining the government's drainage water reuse strategy. According to sector data, there is a need to extend sanitation services to at least 60% of the rural population, in addition to improving quality of service to 25% of the population already covered.

Figure 2 Egyptian Hotspots (Source: Egypt National Action Plan for Land-Based Sources of Pollution in the Mediterranean Sea 2015)

WASTEWATER NETWORK IN COASTAL AREAS IN LEBANON

In 2016, Lebanon prepared its second National Action Plan (NAP) with the purpose of translating into national actions the Strategic Action Programme for the Protection of the Mediterranean Sea from Land-based Pollution (SAP-MED), and of responding to the Barcelona Convention and the related Protocols. The plan reiterated Lebanon's commitment to the Barcelona Convention and charted the roadmap for enhancing compliance. A Programme of Measures (PoM) was proposed under this NAP, combining priority technical measures with their relevant legal, institutional and economic measures. As a result, six projects were proposed, several of which target the rehabilitation and expansion of the sewer networks and industrial wastewater. The lack of wastewater networks connected to treatment plants is one of the main elements of wastewater pollution in Lebanon. This happens despite the large investments in wastewater treatment facilities by the donor community over the past decades as the treatment capacity installed does not reflect the amount of wastewater actually being treated. In fact, several wastewater treatment plants (WWTP) receive only a small fraction of the sewage in their drainage area due to the fact that wastewater networks generally suffer from limited penetration in peri-urban and rural areas, malfunction due to the age of the pipes or the limited maintenance, lack of household connections (i.e. even where networks exist, households are not connected) and missing sections of the network leading to the WWTP (e.g. conveyors). As a result of this, the national water strategy for 2012 estimates that Lebanon treats only about 8% of its wastewater, considered one of the lowest rates in the whole MENA region. This leaves 92% of raw sewage to infiltrate into groundwater and reach surface watercourses and the sea. Wastewater contamination affects bathing water in the sea and rivers, drinking water quality in groundwater aquifers, and quality of agricultural produce due to irrigation with contaminated water. The hotspots identified in the NAP are given in Figure 3 below.

Figure 3 Updated list of hotspots (Source: Lebanon NAP 2016)

TEN PRIORITY WWTPS IN TUNISIA

The National Sanitation Office (ONAS), as part of its five-year investment plan (2021-2025), plans to upgrade ten wastewater treatment plants (WWTPs) existing in different cities across the country and each servicing less than 100,000 population equivalents. Under the SAP-MED National Action Plan (NAP) of 2005 one of the key priority programmes (currently under implementation) was the extension and rehabilitation of 19 WWTP throughout the country. Nevertheless, the updated 2015 National Action Plan for Tunisia indicates clearly the need for an improvement of the quality of treated wastewater and the increase of the wastewater reuse (for example through managed aquifer

recharge [MAR]). This calls for further investment in WWTPs in the country that are not performing in terms of treatment capacity or functioning beyond their design capacity. The upgrading and/or extension will enable these facilities to have sufficient capacity for at least another 20 years (2025-2045), comply with discharge and potential treated wastewater reuse quality regulations, and achieve increased energy efficiency. The facilities identified as being in need for investment in order to improve the effluent with the aim of enabling treated wastewater reuse and targeted for upgrade/extension are: El Kef, Teboursouk, Bouargoub, Jemmel, Sbeitla, Medenine, Tataouine, El Hamma, Kebili and Tozeur. These specific WWTPs were selected by ONAS based on their current condition that classified them as high priority. However, there are several other WWTPs in need of rehabilitation and can be integrated in the list of priorities at a later stage although further detailed preparatory studies are required.

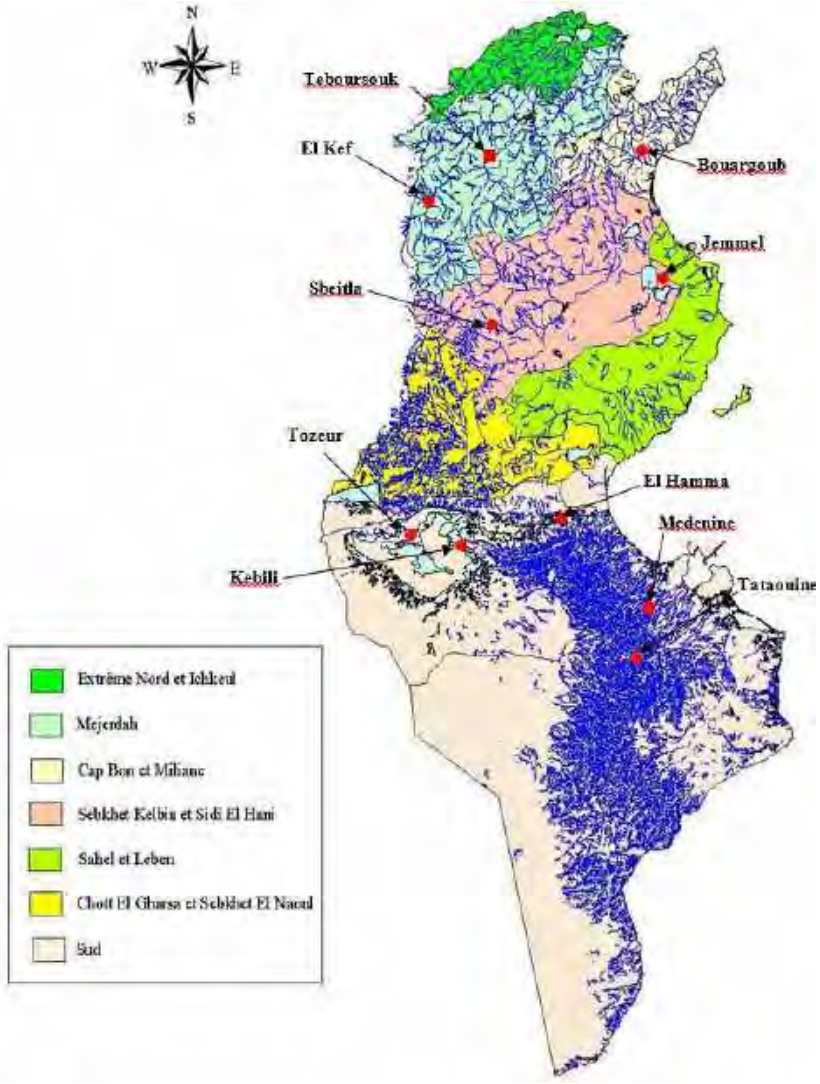


Figure 4 Locations of WWTP within the Hydrographic Basins of Tunisia

UNDAF PRIORITIES

EGYPT

Relevant UNDAF priorities – In its UNDAF 2013 – 2017, Egypt has placed emphasis on environmental sustainability and natural resources management, with an outcome dedicated to the strengthening of mechanisms for the sustainable management of natural resources such as land, water and ecosystems. In referencing international agencies that can support this outcome, Egypt specifically mentions the potential to collaborate with UNEP to reduce the disposal of untreated wastewater into coastal and marine environments by exploring alternative uses of wastewater that are environmentally safe, socially acceptable and economically viable, including agricultural applications of treated

wastewater. Child Project 1.2 will assist Egypt in achieving this outcome through investments to increase the extent and effectiveness of several wastewater treatment plants in the coastal area, as well as through the depollution of a coastal catchment basin, all with the aim of decreasing chemical and organic pollution discharges to the Mediterranean Sea. Capacity building activities will also be undertaken to enable the national water and sanitation companies to better operate and maintain wastewater collection and treatment systems. The project will furthermore respond to Egypt's goal of increasing the alternative use of wastewater, through its regional component devoted to the development of common environmental standards for wastewater and slide management and reuse. Finally, the project will support Egypt in its efforts to reduce gender disparity across the range of priority sectors identified in its UNDAF, since gender has been mainstreamed in the project activities, including specific actions to promote gender equality and inclusivity in the wastewater sector.

LEBANON

Relevant UNDAF priorities – One of the core priorities of Lebanon's UNDAF 2017 – 2020 is to reduce poverty and promote sustainable development, while addressing the country's immediate needs in a manner that is sensitive to human rights and gender issues. Outcomes corresponding to this priority include the reduction of water pollution, including through strengthened national systems and capacities to provide sustainable and equitable access to wastewater services. The activities of Child Project 1.2 will directly contribute to these outcomes through investments in wastewater collection systems that will reduce the chemical and organic pollution of the Mediterranean Sea while also mitigating the risks that untreated wastewater poses to the water resources of local communities. The project activities will also strengthen local capacities for effective operation of wastewater treatment facilities through the definition of responsibilities and operational procedures. The project will furthermore contribute materially to Lebanon's expressed priority of advancing gender equality, since gender has been mainstreamed in the activities of the project, including specific actions to promote gender equality and inclusivity in the wastewater sector.

TUNISIA

Relevant UNDAF priorities – In its UNDAF 2015 – 2019, Tunisia declares as one of its four priorities the creation of an inclusive, sustainable and resilient economic model, and cites a number of environmental challenges that must be addressed to achieve this new economic model, including the sustainable, efficient and inclusive management of natural resources. In terms of potential avenues of cooperation with the United Nations system, Tunisia cites collaborations to strengthen the management capacity of local managers of natural resources and support for the efficient management of water resources, which includes the collection and treatment of wastewaters. Child Project 1.2 will contribute to these priorities through investments for the upgrading and/or extension of wastewater treatment plants to improve the quality of Tunisian surface water, groundwater, and coastal waters, and ultimately the Mediterranean Sea. The activities of the project will also enhance local capacities for the operation and maintenance of wastewater systems, and will update the Wastewater Master Plans for the targeted regions. Finally, the project will support Tunisia in its efforts to promote gender equality (one of the five working principles of its UNDAF), since gender has been mainstreamed in the project activities, including specific actions to promote gender equality and inclusivity in the wastewater sector.

REGIONAL LEVEL

Lack of common regional standards hinders the environmentally sound performance in sectors such as desalination and aquaculture. At the same time, gaps in the existing regional plans on wastewater management and lack of regional regulations on sludge treatment/ disposal have been identified. All of these are impeding the attainment of GES.

All nine of the countries participating in Child Project 1.2 have stated priorities in their respective UNDAFs about the protection and sustainable management of natural resources, including water resources. Furthermore, coastal livelihoods in these countries depend on a healthy and productive Mediterranean Sea, which requires sufficient protections to maintain its ecological integrity. To that end, Child Project 1.2 will engage all participating countries in the development of common environmental standards for desalination, aquaculture and wastewater and sludge management and reuse, as an input for the deliberation of the Contracting Parties to the Barcelona Convention. Particular care will be taken to ensure that gender is mainstreamed in these standards.

3) THE PROPOSED ALTERNATIVE SCENARIO

The Mediterranean Sea Programme - Enhancing Environmental Security: Rationale and Framework

The MedPartnership and ClimVar and ICZM GEF projects have enriched the knowledge on the Mediterranean environment; unraveled the implications of climate change and variability and the importance of coastal aquifers; strengthened countries' mutual trust, cooperation and common purpose; consolidated the partnership among countries, UN bodies, CSOs, bilateral donors and the EU and tested on the ground the feasibility and effectiveness of technical and policy instruments aimed at addressing major present and future threats to environmental sustainability and climate related impacts. Alongside and thanks to these GEF-funded support actions, UN Environment/MAP, at the request of the Contracting Parties to the Barcelona Convention, has developed a comprehensive regional policy framework including strategies, plans and guidelines that will serve as guidance for the regional and national efforts in the Mediterranean for the years to come.

The update of the National Action Plans (NAPs) and preparation process succeeded in creating a momentum at local, national and regional levels, with a remarkable level of involvement and participation of all stakeholders. In each country, national and local authorities, the industrial sector and NGOs discussed priorities, possible actions and opportunities for investment thus making the NAPs a realistic initiative.
These remarkable achievements, while not yet bringing about measurable changes in the levels of environmental stress or in degradation trends, have however created the indispensable foundation and the enabling conditions for initiating national actions targeting major causes of marine and coastal transboundary degradation. The task is now to confront the challenge of implementation, thereby achieving concrete and lasting results.

The stage of assessments, diagnostics, priority setting, planning and experimentation having been completed, a higher level of effort is now required at the national and regional levels. This renewed and expanded effort is not only justified by the continuing degradation of the Mediterranean coastal zone and shallow marine environments, but also urgent in view of the looming climate related threats, and of the loss of livelihoods and dramatic deterioration of social conditions along critical sections of the Southern and Eastern Mediterranean shores.
To address this multiplicity of threats, countries have joined efforts and obtained further GEF support through the Programmatic Approach funding modality. The "Mediterranean Sea Programme: Enhancing Environmental Security", approved by the GEF Council in 2016 aims to assist GEF beneficiary countries of the Mediterranean Basin to rise to this challenge and step up their efforts and commitments, including those financially related.

The term "environmental security", used in the title of the proposed Programme to capture its overall perspective and goal, embraces three categories of concerns:

- Concerns about the adverse impact of human activities on the environment - the emphasis here is on the security of the environment as a good in itself, for the sake of future generations, as the context for human life.
- Concerns about the direct and indirect effects on national and regional security of various forms of environmental change (especially water scarcity and degradation), which may be natural or human-generated - here the focus is on environmental change triggering, intensifying or generating the forms of conflict and instability relevant to conventional security.
- Concerns about the insecurity that individuals and groups (from small communities to humankind) may experience due to environmental change such as water scarcity, air pollution, climate variability and change.

The current situation of the Southern and Eastern shores of the Mediterranean shows all the signs of progressive deterioration of environmental security as a consequence of complex and interlinked factors. Among them, the loss and degradation of coastal and shallow marine ecosystems and of the scarce freshwater resources, compounded by the increasing negative impacts of climate variability and change, play an important role in determining social instability and political volatility. The presumption underlying the Programme design is that overall environmental security, including the sustainability of the livelihoods of growing coastal populations and their resilience to the adverse impacts of climate change and variability, will be improved by:

(i) Reducing nutrient pollution and habitat degradation in coastal hot spots (Child Projects 1.2, and 1.3);
(ii) Contributing to the improved health of humans and ecosystems through the elimination of persistent toxic substances in hot spots (Child Project 1.1, 1.3);
(iii) Implementing ICZM and introducing conjunctive surface and groundwater management in the coastal zone, thereby protecting coastal groundwater-related ecosystems (Child Project 2.1);
(iv) Promoting the nexus planning approach to reconcile conflictive coastal resources uses (Child Project 2.2);
(v) Protecting coastal/marine biodiversity (Child Project 3.1).

Child Project 1.2: Mediterranean Pollution Hotspots Investment Project

Child Project 1.2 comprises two distinct components targeting:
(i) the preparation of mature investments targeting pollution reduction in coastal hotspots; and
(ii) the regional harmonization of relevant standards.

The structure of Child Project 1.2 and its placement within the overall MedProgramme is presented in Figure 5 below

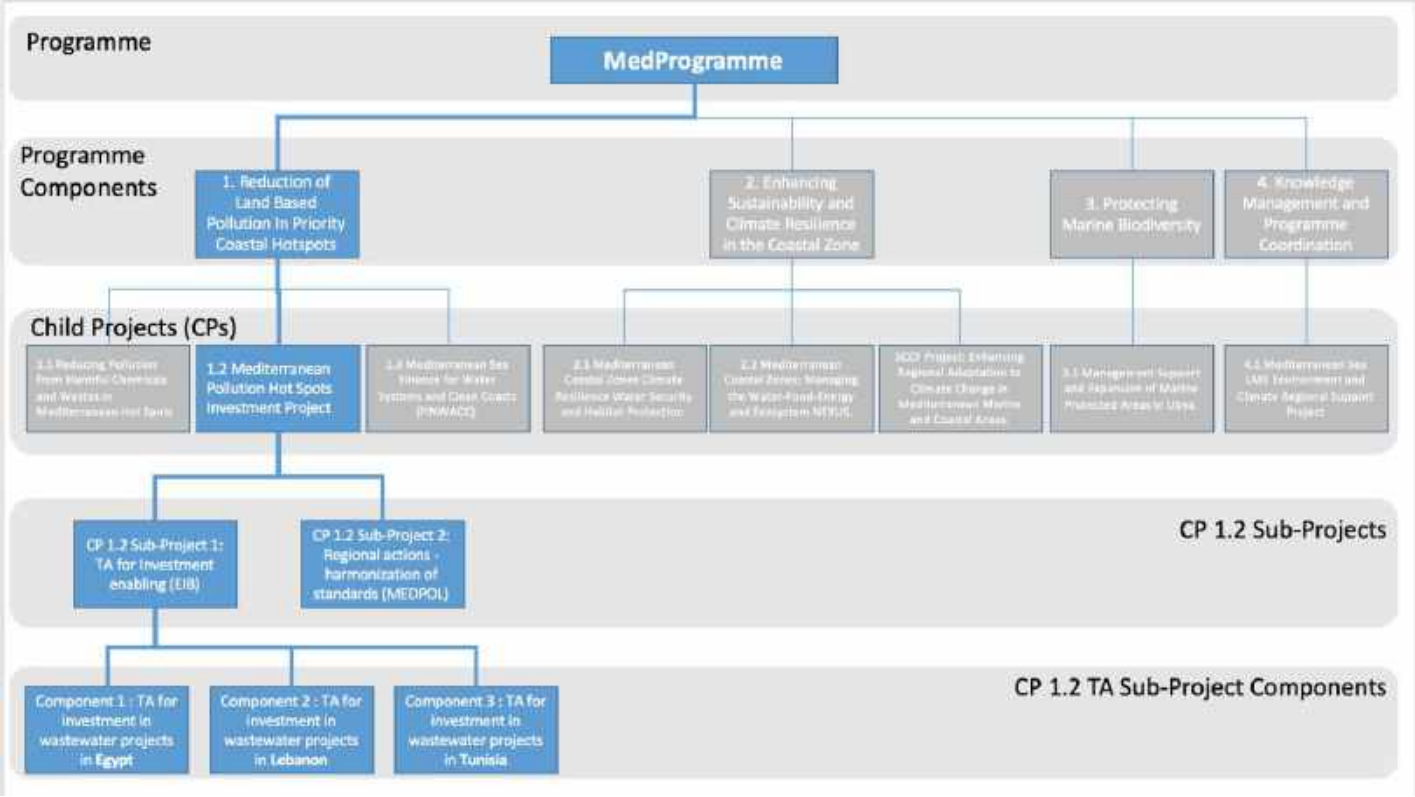


Figure 5 Structure and placement of Child Project 1.2 in the MedProgramme

GEF funding will primarily support the selection and design of the investments along with corresponding relevant capacity building. Child Project 1.2 will include a blend of national actions aimed at reducing the stress in selected pollution hotspots while increasing the availability of freshwater resources for agricultural or industrial uses, and regional actions aimed at the development of common environmental standards and guidelines with regards waste water and sludge management and reuse, desalination, and aquaculture.

Child Project 1.2 Component 1 will identify and prepare nutrient reduction investments to support the depollution of the Mediterranean Sea and provide an additional source of water thus improving the economic situation for fisheries, agriculture/forestry and tourism in the target areas while at the same time improving the health and the environmental situation for the people living in these areas.

Component 1 will focus on enabling investments in pollution reduction from domestic wastewater targeting recognized pollution hotspots (NAPs) in three Mediterranean countries: Egypt, Lebanon and Tunisia. Details on the hotspots to be targeted are provided in the following sections.

Child Project 1.2 Component 2 will provide for harmonization and upgrading of the existing or development of new standards for sectors and activities causing significant pressures on marine and coastal environment in the Mediterranean. This will strengthen policy framework for the implementation of Component 1 investments and contribute to the overall effectiveness of environmental management in the region. The Component 2 will focus on wastewater treatment, sludge management, desalination and aquaculture. It will build upon and complement the ongoing work on the development of six new/updated pollution reduction regional plans by the MAP/ Barcelona Convention, as well as the GFCM work on further development of legal framework for sustainable aquaculture.

The main gaps in the existing standards to be addressed for the wastewater sector include performance/ efficiency standards for WWTPs, effluent quality (for a wider range of pollutants), pre-treatment standards for industries discharging into sewerage, reuse of treated wastewater, and runoff control to minimize marine litter and contaminants inputs. Management of sludge is currently not regulated on the regional level and the Component 2 activities on the development of pertinent standards will address sludge treatment and disposal methods, including potential options of using sludge in agriculture and for energy production. To provide for a regional response to the growing pressures from desalination, Component 2 activities will focus on standards and criteria needed to ensure best practices in planning, operation and monitoring of desalination plants (focusing, *inter alia*, on water intake and brine discharges). Finally, the gaps that will be addressed in the development of regional standards for reducing pollution from aquaculture include site selection criteria, prevention and control of nutrients, application of better management practices and integrated monitoring programmes.

COMPONENT 1 - NATIONAL ACTIONS: NUTRIENT REDUCTION INVESTMENTS IN COASTAL HOTSPOTS (EXECUTING AGENCY: EUROPEAN INVESTMENT BANK)

Outcome 1: **Investments in upgrading WWTPs and reusing of treated wastewater, and/or remediation of former industrial sites, and/or depollution of catchment area in Egypt, Lebanon and Tunisia are secured through strengthened capacity and increased country commitments.**

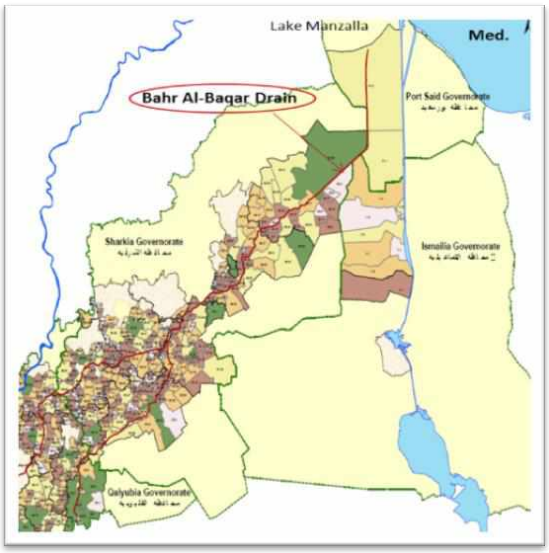
A) EGYPT: NILE DELTA AND THE MEDITERRANEAN SEA - INVESTMENTS IN THE DEPOLLUTION OF THE WATERS IN DRAINS AND CANALS THROUGH WASTEWATER COLLECTION AND TREATMENT

In the 2015 update of the NAP, Egypt identified a number of priority measures required to address the levels of pollution at the identified hotspots. Execution of activities in Egypt under component 1 of Child Project 1.2 will aim at enabling investments in one or two priority hotspots, Lake Manzala and Lake Maryut.

Lake Manzala has been identified as target for the depollution of Bahr Al Baqar Drain while Lake Maryut could be targeted through the depollution of Al Omoum Drain. As the funds are limited, the priority investment will be decided in close cooperation with the Egyptian Government. Details on the two identified potential investments are presented below.

1) Bahr Al Baqar Drain (targeted hotspot: Lake Manzala)

The Bahr Al Baqar Drain is one of the main agricultural drains in the eastern Nile Delta. The drain passes through three Governorates (Sharkia, Qalyubia and Port Said) and discharges to Lake Manzala which in turn discharges about 60 m^3/s to the Mediterranean Sea.



Bahr Al Baqar Drain key figures

- *Length: 173 km*
- *Depth: 1-3 m*
- *Width: 30 - 70 m*
- *Agricultural Area Served: 317,000 ha*
- *Governorates Crossed: 3 - Sharkia, Qalyubia and Port Said*
- *Existing WWTP in the drain catchment: 29*
- *Drain water composition:*
  - *58% agricultural drainage*
  - *2% industrial discharges*
  - *40% domestic and commercial wastewater*
- *Discharges to Lake Manzala*

Figure 6 Bahr Al Baqar Drain location

The Bahr Al-Baqar Drain serves approximately 317,000 ha of agricultural lands. The main drain starts near the city of Zagazig where it collects the effluents from two secondary drains: the Belbeis Drain and the Qalyubia Drain. From Zagazig, the Bahr Al Baqar Drain conveys water for about 106.5 km to the Ginka sub-basin in the southeast sector of the Lake Manzala which is located on the north-eastern edge of the Nile Delta of Egypt. The water in the drain is highly polluted as it is frequently used to convey raw industrial and municipal wastewater, which causes serious environmental and health problems and damages the agricultural economy in the area. Municipal solid waste is also disposed of along the banks of the drain. The Ginka sub-basin acts as a sink and as a result high levels of toxic metals were found in the sediments.

The secondary drain called Belbeis Drain starts near Cairo and has a total length of about 67 km. All sewage and industrial wastewater treated or untreated, from the eastern zone of Greater Cairo is dumped into this drain. The other secondary drain called Qalyubia Drain is about 73 km long and runs parallel to the Belbeis Drain at a distance of about 20 kilometers. It collects treated and untreated wastewater from the critical area of Shobra El Khemma and its large industrial area and the urban communities of the Qalyubia and Sharkia Governorates.

The Bahr Al Baqar Drain itself is about 173 km long and its depth is about 1-3 m and its width is about 30 - 70 m. A large part crosses through cultivated agricultural areas. The drain receives discharges from several industries in the region of Cairo as well as several agricultural run-offs in the northeastern part. Large cities or villages discharge important amounts of partially treated/untreated urban municipal wastewater into the drain. The Bahr Al Baqar Drain watershed is used for the transport of raw wastewater which is discharged from the east bank of Greater Cairo, and there are 29 existing wastewater treatment plants in the Bahr Al Baqar catchment. The industrial effluent in the Bahr Al Baqar catchment area has a major impact on the quality of the drainage water in Bahr Al Baqar Drain system. Shoubra El Kheima, which is in the drain catchment, represents one of the highest concentrations of industry in Egypt. The industrial activities include metal production, food processing, detergent and soap manufacturing, textile finishing and paper production.

The textile and dyeing industries, which represent 46.3% of the total number, discharge only 33% of the industrial wastewaters. The metal industries on the other hand, which represent only 15% of the total number, discharge almost 50% of the total industrial wastewaters. The total organic loads are about 15 ton/day BOD_5 and 54 ton/day COD. This means that the organic loads contain a high ratio of poorly biodegradable compounds. The textile industries are the main contributors to organic loads, at almost 52%. The soap and oil industries on the other hand, which only discharge 4% of the total industrial wastewater discharges, contribute 30% of total BOD_5. It was concluded in 1997 that 58% of the total drainage water comes from agricultural drainage, 2% from industrial drainage and 40% from domestic and commercial drainage.

Lake Manzala is one of the coastal lake systems in the northern corner of the Nile Delta, between Damietta and Port Said. It is a shallow brackish lake adjacent to the Mediterranean Sea, surrounded by large wetlands, and separated from the sea by a sandy ridge that has three gaps connecting the lake to the sea. The lake fish production is high and once supplied about 30% of Egypt's total catch. The lake receives untreated industrial and domestic effluent from the drains and from towns and industries around its shores. The Bahr Al Baqar system alone contributes to almost 45% of the total discharge into the lake, and accounts for 70% of the domestic pollution entering the lake, in addition to discharges from Port Said and Damietta cities and Matarya and Manzala towns. The lake also receives agricultural wastes from five drains. The Bahr Al Baqar system and Lake Manzala were identified as "black spots" by the Egyptian Environmental Action Plan (EEAP) in 1992 and in order to protect this ecological heritage, the EEAP classified Lake Manzala as a priority area.

The proposed investment will require a technical study to identify appropriate pollution mitigation investments. The study could include but not be limited to the following:

- Identification/registration of point and diffuse sources of pollution at the catchment level to prioritize the environmental and health risks.
- Definition of technical options for investment in depollution infrastructure.
- Definition of water resources management options to guarantee sustainable use of resources.
- Prioritization of investments in new construction, rehabilitation and extension of WWTPs and sewage networks.
- Identification of level of coverage and treatment options for smaller rural conurbations to ensure cost effective investment.
- Preparation of tender documentation for the prioritized investments.
- Assistance to the government with the tendering process, bid evaluation and awarding of the construction contracts as well as contract negotiation process and contract signature.
- Assistance with the preparation of terms of references for the procurement of consultants for construction supervision and/or project management.
- Assistance with the preparation of Project Implementation Manuals (PIM) and assistance and training of the project promoters on management, monitoring and evaluation of project performance.

The ultimate goal of this investment is to support the depollution of the Mediterranean Sea and improve the health and environmental situation of the people living in the Governorates of Sharkia, Qalyubia and Port Said, as well as strengthen the economy in these Governorates by improving the irrigation water quality.

2) El Omoum Drain (targeted hotspot: Lake Maryut and El Mex Bay)

The El Omoum Drain is a major agricultural drain located on the western edge of the Nile Delta south of the city of Alexandria. The drain receives agricultural drainage water from an area of approximately 171,300 ha of agricultural lands. As is common across the area, the drain also receives both raw and treated (and partially treated) wastewater from several defined and undefined sources. The drain finally discharges into Lake Maryut and the water is then pumped from the lake to the Mediterranean Sea (El Mex Bay) through the El Mex pumping station.

Figure 7 El Omoum Drain location

The drain is one of the main sources of pollution of both Lake Maryut and El Max Bay as has been confirmed in the Egyptian NAP of 2015 and its depollution (along with Kitchener, Omar Bek and Bahr El Baqar drains) is one of the targets of the Egyptian Government identified in the NAP.

Lake Maryut is located to the south of Alexandria City. The Maryut Lake basin is highly polluted and has been identified as a priority hotspot. Treated wastewater from the two wastewater treatment plants serving the city of Alexandria (Alexandria East WWTP and the Alexandria West WWTP) is being directly discharged in the lake. Until recently both WWTPs only included primary treatment, meaning that the quality of the discharged effluent was significantly contributing to the pollution of the lake. However, the Egyptian Government has put in place measures to upgrade the treatment of both WWTPs with the East WWTP already upgraded and the West WWTP expected to include secondary treatment by 2022.

Table 4 Pollution and flow from major sources of El Mex Bay (tons/day)

Load (tonnes/day)	Em Omoum Drain	Tanneries	Alexandria Petroleum	Sodium Carbonates	Misr Chemical Industries
Flow (m^3/d)	7,900,000	3,150	1,200	65,000	3,930
TDS	26,414	79	130	181	7.67
TSS	144	37	2.4	0.7	0.23
BOD	150	9	2.2	0.05	0.04
COD	200	26	6	0.2	0.19

Source: Egyptian NAP (2015)

The lake also received agricultural drainage, including raw and treated domestic wastewater from the El Omoum Drain (covering the agricultural areas to the south of the lake) and the Noubaria Canal. The level of water in the lake is kept at 2.8 m below mean sea level with the use of El Mex Pumping Station, which pumps water from Lake Maryut and discharges about 8M m^3/day in El Mex Bay.

It is expected that GEF funding could be used for the preparation of essential studies that will enable the implementation of the investment. These studies could provide the basis for the prioritization and development of investment projects that will increase sanitation coverage while at the same time aiming to maximize the depollution effect.

The studies could include, but are not limited to, the following aspects:

- Identification of the main sources of pollution.
- Existing status of the domestic and industrial wastewater treatment works, wastewater flows and quality characteristics from urban, rural and industrial wastewater sources.
- Examination of on-going projects related to domestic and industrial wastewater treatment systems for the relevant areas and synergies with the potential new investments.
- Definition of the area of each investment project and identification of infrastructure such as existing structures, pumping stations and mixing stations.
- Assessment of the hydraulic status (from capacity point of view) of any current intersection structures such as siphons, aqueducts and culverts.
- Villages in the project area, including the administrative boundaries and the population number.
- Areas currently connected to a water and/or sewage network and areas with concrete plans for future connections including the sewage treatment facilities.
- Areas with larger industries with and without a wastewater treatment facility.
- Review of available information on the tariff setting and subsidy payment policy.
- Review of available socio-economic data on the population in the project area, including: willingness to pay for a sewage and/or solid waste collection and treatment system, attitudes towards reusing wastewater in agriculture or forestry;
- Review of available data from water quality monitoring/ sampling programs carried out by organizations under the authority of the MWRI.
- Available information on the existing and required environmental licenses and regulations.
- Available information related to projects funding to identify possible donor/IFI related programmes in the project area (past, foreseen or ongoing).

In addition, funds provided by GEF could be used to finance the provision of consultancy services for technical assistance for the implementation of the identified investment projects in order to ensure their implementation and achievement of the targets. This technical assistance could include but not be limited to the following activities:

- Preparation of tender documentation.
- Assistance to the project promoters with the tendering process, bid evaluation and awarding of the construction contracts as well as contract negotiation process and contract signature.
- Assistance to the project promoters with the preparation of terms of references for the procurement of consultants for construction supervision and/or project management.
- Assistance with the preparation of Project Implementation Manuals (PIM) and assistance and training of the project promoters on management, monitoring and evaluation of project performance.

Given the extensive needs and the wide scope for depollution activities along the Mediterranean coast of Egypt, a wide range of activities could be realized with GEF funding in order to best contribute the objective of the depollution of the waters of the Nile Delta and the Mediterranean Sea. A flexible, tailored, case by case approach to the adoption of technical assistance that accounts for the specific nature and characteristics, level of maturity and geographical location of each proposed investment project is considered essential. A list of likely outputs is presented below:

Outputs

Output 1.1: Preparatory studies finalized.
In order for identified potential investments to be ready for financing by the EIB (or any other financing institution), preparatory studies need to be completed to ensure that:

- The technical solutions proposed are the most appropriate to the specific context.

- The environmental (e.g. impact on protected areas) and social (e.g. land expropriation) implications of the project have been duly taken into account.
- The climate risk vulnerability of the investments has been assessed and the required risk mitigation solutions costed into the overall project design.
- The cost estimates are reliable.
- The financial sustainability of the investments has been secured through government support and/or the setting of an appropriate tariff system.
- The necessary institutional capacity building elements for project implementation are identified (e.g. need for a specific Project Implementation Unit).

These elements are required to ensure the projects will be properly implemented and lay the ground for the sustainable operation of the new infrastructure.

Output 1.2: Capacity-building activities to enable the national water and sanitation companies to better operate and maintain wastewater collection and treatment systems finalized.
Based on the studies and on needs assessments conducted for the relevant regional water and sanitation companies, technical and administrative training could be provided. Topics to be covered could include *inter alia* administrative, technical, financial and environmental aspects. These capacity building activities will mainstream gender by ensuring inclusive representation of different needs and requirements of population subgroups – particularly by ensuring gender-balanced training.

Output 1.3: Targeted surveys and studies to enable informed decision-making and enhance the sustainability of the investments and their beneficial impacts, prepared.
Targeted surveys could be carried out to enable the proposed investments to achieve the maximum possible depollution impact. An example of this could be a survey of industrial wastewater discharges within a catchment area in order to assess pollution sources with specific detailed analysis on industrial and non-classified establishments (i.e. farms, sand washing, gas stations).

Output 1.4: Public awareness raised on the benefits of proper wastewater disposal.
Communication and awareness campaigns that would target the public in order to help them appreciate the value of treating wastewater and give them the basic knowledge of sanitation concepts could be part of the activities to raise public awareness. This could be of great value given the fact that the population of the rural areas of the Nile Delta is poor and with low levels of educational background. The public awareness component will have a gender mainstreaming function – by incorporating and disseminating the gendered aspects of wastewater disposal in an accessible manner to the target audience.

Output 1.5: Gender equality mainstreamed in the wastewater sector in Egypt.
The approach of Child Project 1.2, in the spirit of the MedProgramme's overall Gender Mainstreaming Strategy (Annex Q), will be to ensure gender entry points are identified throughout the different activities of the portfolio (such as capacity building and public awareness, see above). Any capacity building activities identified to be implemented would endeavor to include women from the various agencies to ensure that both genders are adequately represented throughout the process by through balanced representation of both male and female practitioners in the training activities. Public awareness outputs will also work towards disseminating important data and information regarding the gendered aspects of the wastewater sector, which will be a necessary first step in mobilizing stakeholders on a broader gender mainstreaming agenda.

GEF Added Value

Given the extensive needs and the limited financial resources for preparatory studies, the NAP investments in Egypt coastal hotspots would not be considered sufficiently mature for financing by the EIB or other IFIs and therefore either not materialize or take much longer to be prepared. Therefore, the GEF grant contribution through the TA needed to complete the preparatory studies will enable the engagement of IFIs and facilitate the identification of the necessary co-

financing (loans and grants) by attracting the interest of other donors leading to timely implementation of the investments in the priority hotspots identified in the NAPs.

Added value activities such as wastewater reuse (including MAR) and energy recovery from sludge will be studied in detail, something that would not ordinarily be done due to the limited financial resources for such studies.

Finally, the GEF contribution to capacity building components will also enhance the long-term sustainability of the investments in terms of their efficient operation and extension of the working life of the infrastructure.

Table 5 Contribution of Child Project 1.2 to MedProgramme targets (Egypt: Alexandria and Nile Delta Coast)

MedProgramme Targets for Child Project 1.2	Specific contribution
Risk reduction in at least two coastal hotspots	Reduction in organic pollution loads discharged to (at least) 1 coastal priority hotspot in Egypt.
At least 4 WWTP to be built or rehabilitated	A number of WWTPs is expected to be built and/or rehabilitated. The exact number will be confirmed through the studies to be financed using the GEF funding.
At least 150,000 m^3/d of additional waste-water treated to secondary level	A series of investments in the extension of wastewater networks is envisaged under this component.
At least 20,000 m^3/d of additional treated wastewater reused	A series of investments in the construction of new and expansion of existing wastewater treatment plants is envisaged under this component.
At least 20,000 m^3/d of additional sludge digested	The studies to be performed for the potential new investments will assess the potential for sludge digestion and incorporate this in the investment where feasible.

B) LEBANON: INVESTMENTS IN WASTEWATER COLLECTION SYSTEMS IN COASTAL HOTSPOTS.

In compliance with the Barcelona Convention, the Government of Lebanon designed 12 coastal wastewater treatment plants, of which eight were constructed and the remaining four, are still under preparation. Main collectors and collection networks were initiated for the lower basins and need to be expanded to cover the upper basins currently discharging into water streams or groundwater. Moreover, some of the constructed wastewater treatment plants require extension to meet the current and projected demand.

In 2016, the Lebanese Government approved the Programming Law (Law 63 – 27/10/2016) to address water pollution in the Litani River Basin. The law approves financing specific projects in wastewater and solid waste sectors to be implemented in the coming seven years. Its total budget comes to USD 733 million.

In 2018, the Government of Lebanon launched the Capital Investment Programme (CIP). The CIP is a key pillar of the Government's vision for stabilization and development against the background of the Syrian crisis and the effects this has had on Lebanon. It comprises new projects for infrastructure investment that will eliminate the gaps that exists between the demand and need for infrastructure services, in all sectors, and the supply, and reduce the cost to the economy of the lack of adequate infrastructure.

These infrastructural investments are expected to safeguard human and ecosystem health in the long run by improving the quality of surface and groundwater and protecting the coastal marine environment from further degradation.

Construction of wastewater networks - Within the wastewater sector, the CIP proposed projects that were prioritized into implementation cycles as illustrated in Figure 8 below. These include expansion and upgrade of wastewater treatment plants and rehabilitation and construction of wastewater networks. The total estimated cost of implementation of Cycles 1 and 2 is USD 2.4 billion.

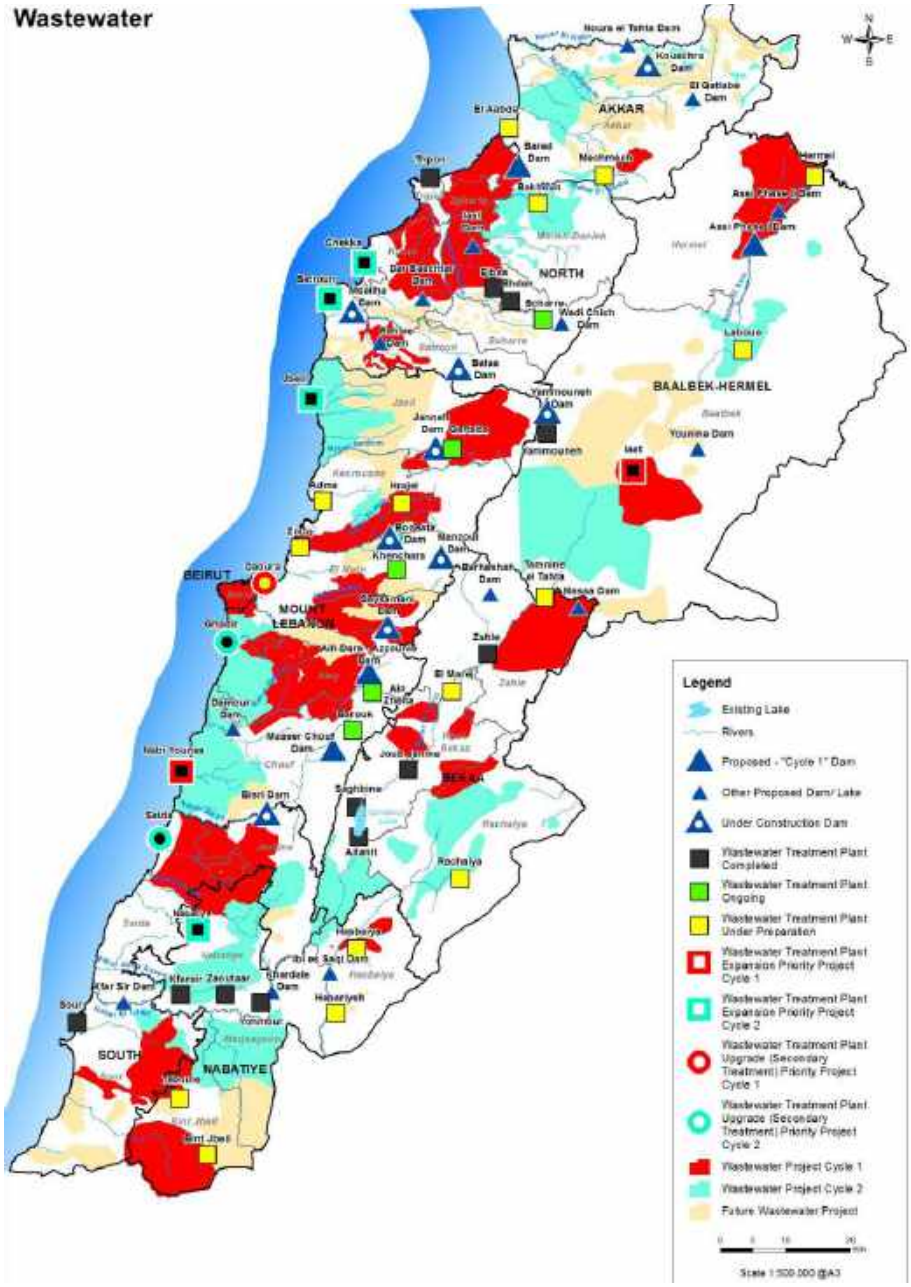


Figure 8 Wastewater Priority Projects (source: CIP, March 2018)

The main investments in wastewater networks identified under cycle 1 and 2 are presented in Table 6 below for a total estimate investment cost of USD 408.5 M (Source: CIP March 2018). Most of these investments still require the completion of preparatory studies to make them fit for appraisal and financing. The EIB in cooperation with the Council for Reconstruction and Development (CDR) of Lebanon has already worked on the preparation of some of these projects and intends to use GEF funds to enable investments in the remaining areas.

Table 6 Overview of main investments in cycles 1 and 2 of Lebanon's CIP

Investment	Region (District)	WWTP	Estimated cost (USD)	Cycle	Hotspot	Status
Completion of missing networks and collectors within Tripoli WWTP Service	North Lebanon (Tripoli)	Tripoli	100	1	Tripoli (priority hotspot)	Approved for financing

Area						
Completion of wastewater networks within El Aabde WWTP Service Area	Akkar (Akkar)	Al Aabade	60	2	Aabde (hotspot)	Concept stage
Completion of wastewater networks within Jbeil WWTP Service Area	Mount Lebanon (Jbeil)	Jbeil	40	2	Byblos (priority hotspot)	Concept stage
Networks for Halat and Nahr Ibrahim	Mount Lebanon (Jbeil)	Jbeil	9	2	Byblos (priority hotspot)	Concept stage
Expansion of sewer networks for coastal Chouf	Mount Lebanon (Chouf)	Nabi Younes	40	2	Jiyeh (hotspot)	Concept stage
Sour Phase III	South Lebanon (Sour)	Sour	50	1	Sour (potential hotspot)	Concept stage
Completion of Saida wastewater networks	South Lebanon (Saida)	Saida	25	1	Saida (priority hotspot)	Under preparation
Jbaa Wastewater System	Nabatiye (Nabatiye)	Saida	7.5	1	Saida (priority hotspot)	Concept stage
Nabatiye Part II (East Nabatiye) Wastewater System	Nabatiye (Nabatiye)	Nabatiye	50	2	n/a	Concept stage
Expansion of wastewater collection networks of West Bekaa (Phase 2)	Bekaa (West Bekaa)	Baalbek	27	1	n/a	Concept stage
		Total (USD)	408.5			

Enabling the sustainable operation and maintenance of the wastewater system

Constructing the sewer networks and connecting them to existing treatment plants alone is not sufficient to ensure proper and sustainable operation of a wastewater system. As mentioned in the problem analysis, there are various other challenges, both administrative and technical, that may prevent a successful outcome for the investments currently underway. In order to address these challenges, the Technical Assistance (TA) component of Child Project 1.2 will make use of GEF financial contribution to Child Project 1.2 to undertake a set of "enabling activities" with specific outputs as outlined below.

Given the wide scope of the proposed investment programme, which covers wastewater networks in several different locations in Lebanon, the list below presents the range of proposed potential activities that could be activated with GEF funding on wastewater networks investments in Lebanon. The activities are expected to be decided on a case by case basis and depending on the specific nature and characteristics, level of maturity and geographical location of each proposed investment. A flexible, tailored approach to the adoption of Technical Assistance in these areas is considered essential to the success of the programme.

Outputs

Output 1.6: Preparatory studies, finalized.

Activities: In order for the identified investments to be considered for financing by EIB (or any other financing institution) preparatory studies would need to be completed to ensure the following criteria:

- The technical solutions proposed are the most appropriate to the specific context.
- The environmental (e.g. impact on protected areas) and social (e.g. land expropriation) implications of the project have been duly taken into account.
- The climate risk vulnerability of the investments has been assessed and the required risk mitigation solutions costed into the overall project design.
- The cost estimates provided are reliable.
- The financial sustainability of the investments has been secured through government support and/or the setting of an appropriate tariff system.
- The necessary institutional capacity building elements for the implementation of the project are identified (e.g. need for a specific Project Implementation Unit).

The above criteria form the required foundation in order to ensure that the projects will be properly implemented and lay the ground for the sustainable operation of any new infrastructure.

Output 1.7: Responsibilities defined, and operation procedures developed and submitted for adoption by relevant authorities.
With the aim of creating a continuous communication line between the various actors in the wastewater sector, a series of workshops could be undertaken to discuss administrative and technical gaps, including the delineation of responsibilities in the sector, and agree on a way forward. Operational procedures related to technical, administrative, and monitoring issues would also be developed during these workshops. The resulting framework and procedures developed during these workshops would then be submitted to the relevant authorities for adoption.

Output 1.8: Monitoring and evaluation capacity of MOEW and WEs improved.
Based on mandates agreed upon during Output 1.6 and on an assessment of the needs conducted for the WEs and municipalities, technical and administrative training could be provided to the staff of the WEs and relevant municipalities. Topics covered could include *inter alia* administrative, technical, financial and environmental aspects. In addition, relevant staff could be recruited and trained on how to utilize GIS for the management of WW networks. Technical support could also be provided to help the MOEW and WEs set up monitoring and evaluation units for the wastewater sector. The mandate of these units would be to monitor performance indicators in the sector.

Output 1.9: Surveys and studies to enable informed decision-making and enhance the sustainability of the investment and of its beneficial impacts, prepared.
Surveys could be carried out with the use of GEF funds for all target areas served with the objective of assessing the affordability and willingness of households to pay for wastewater services. The surveys could be carried out in close cooperation with the relevant municipalities and WEs and would utilize qualitative and quantitative tools and analysis. This would allow the Government of Lebanon to set a reasonable and affordable wastewater tariff that will cover a significant amount of the operation and maintenance costs.

Another survey that could be conducted is the assessment of industrial wastewater within the target catchment areas. The purpose of these survey would be to assess pollution sources with specific detailed analysis on industrial and non-classified establishments (i.e. farms, sand washing, gas stations). The assessment would provide the basis for the identification of investment needs in industrial wastewater treatment within the target areas. Assuming that suitable investments are made, this would reduce uncontrolled industrial discharges to treatment plants and rivers, thereby minimizing pollution and the potential impact on the proper functioning of secondary and tertiary treatment at those WWTPs. Lebanon currently disposes of a dedicated depollution credit line (Lebanon Environmental Pollution Abatement Programme) that can provide concessional financing to operators willing to invest in industrial wastewater treatment.

A pre-feasibility study would be undertaken to investigate the possibility of reusing treated wastewater on a pilot scale within the project area based on the draft guidelines and standards for reuse that are yet to be adopted by the government. Managed Aquifer Recharge (MAR) techniques would be assessed as a means to combat seawater intrusion into coastal aquifers.

Output 1.10: Gender equality mainstreamed in the wastewater sector in Lebanon.
Workshops could be organized to include the perspectives of female stakeholders from the various agencies to ensure that both genders are adequately represented throughout the process. The project could also support women engagement in the wastewater sector by helping the WE and municipalities adopt human resource and employment policies that include gender-sensitive approaches and adjusting working conditions and atmosphere to encourage women to pursue a career in the wastewater sector. Output 1.2.5 would ensure a balanced representation of both male and female practitioners in the training activities. For example, candidates from both genders would be equally considered for the GIS activity, ensuring that working conditions encourage women to participate.

GEF Added Value

Given the extensive needs and the limited financial resources for preparatory studies, the NAP investments in Lebanon coastal hotspots would not be considered sufficiently mature for financing by the EIB or other IFIs and therefore either not materialize or take much longer to be prepared. Therefore, the GEF grant contribution through the TA needed to complete the preparatory studies will enable the engagement of IFIs and facilitate the identification of the necessary co-financing (loans and grants) by attracting the interest of other donors leading to timely implementation of the investments in the priority hotspots identified in the NAPs.

The complexity of the institutional framework in Lebanon and the lack of clear management roles is often a key obstacle to the development of efficient services in the public sector. A GEF direct contribution to the creation of conditions for a constructive dialogue at the local and central level can provide an important starting point for more long-term public sector reforms in due course.

The GEF contribution to capacity building components would also enhance the long-term sustainability of the investments in terms of their efficient operation and extension of the working life of the infrastructure.

Table 7 Contribution of Child Project 1.2 to MedProgramme targets (Lebanon Coastal Areas)

Med Programme Targets for Child Project 1.2	**Specific contribution**
Risk reduction in at least two coastal hotspots	The project will contribute directly to reduction in organic pollution loads discharged to at least 1 coastal priority hot spot identified in the 2016 NAP for Lebanon.
At least 4 WWTP to be built or rehabilitated	n.a.
At least 150,000 m^3/d of additional waste-water treated to secondary level	A series of similar investments in the extension and upgrading of wastewater networks throughout the country is envisaged under this investment programme.
At least 20,000 m^3/d of additional treated wastewater reused	n.a.
At least 20,000 m^3/d of additional sludge digested	n.a.

C) TUNISIA: INVESTMENTS FOR THE UPGRADING AND/OR EXTENSION OF 10 WWTPS TO IMPROVE THE QUALITY OF SURFACE WATER, GROUNDWATER, AND COASTAL WATERS.

Taking into account the long-term objective of the Tunisian Government (Constitution 2014), which states that every citizen should have access to adequate water supply and sanitation services, it is considered that all populations of the target cities will be connected to the sewer system by 2045 (planning horizon of the proposed investments). It is important to ensure that each WWTP will have enough capacity to treat all urban, rural and industrial wastewaters by 2045 and, therefore, ensure that wastewater pollution is prevented from reaching the Mediterranean Sea. As there is no available information on the future industrial development of the target cities, this aspect can be taken into account by applying a safety factor to account for additional industrial flows. Based on this approach and stated assumptions, the

estimated wastewater flow in 2045 and the new design capacity for each of the ten WWTPs is presented in Table 8.

The results show that: Jemmel, Sbeitla, Tataouine, El Hamma, Kébili, and Tozeur WWTPs will exceed their design capacities before the expected end of project implementation (2025).
El Kef WWTP has already sufficient hydraulic capacity and may not require hydraulic extension. However, since the treatment process is not adequate, it will need a major upgrade to improve its performance and hence increase the organic loading capacity of the plant as the quality of the treated WW does not meet the national standards. The other three WWTPs that also need major upgrades are Jemmel, Tataouine and El Hamma.

The remaining WWTPs need extension of their hydraulic capacities as well as organic loading capacity. Overall the required additional capacity varies from 50% to 195%. It should be noted that four WWTPs, Sbeitla, Tataouine, El Hamma and Kebili need to more than double their current design hydraulic capacities.

The total additional hydraulic capacity of all ten WWTPs is estimated at 39,214 m^3/day or an increase of 77% over the current overall design capacity.

Table 8 Additional capacity of the WWTPs in Tunisia

WWTP	Current Design Capacity	Estimated WW flow rate in 2025	New Design Capacity	Additional Capacity		Treatment process and organic loadings
	(m^3/day)	(m^3/day)	(m^3/day)	(m^3/day)	(%)	
El kef	8,500	5,904	8,500	0	0	Major upgrade
Teboursouk	1,280	1,239	2,190	910	71	Improvement
Bouargoub	2,735	2,561	4,340	1,605	59	Improvement
Jemmel*	6,700	7,201	11,000	4,300	64	Major upgrade
Sbeitla	3,870	5,027	8,220	4,350	112	Upgrade
Medenine	8,870	7,314	13,300	4,430	50	Upgrade
Tataouine	5,430	9,214	16,000	10,570	195	Major upgrade
El Hamma	4,061	6,578	9,670	5,609	138	Major upgrade
Kebili	3,130	3,570	6,720	3,590	115	Upgrade
Tozeur	6,650	6,836	10,500	3,850	58	Upgrade
Total	**51,225**	**55,444**	**90,440**	**39,214**	**77**	

** WWTPs that will exceed their hydraulic capacities before upgrading project*

Increase the reuse of treated wastewater and sludge - In addition to protecting the Mediterranean Sea from land-based pollution, other benefits of upgrading and improving the performance of the WWTPs will be the increase of the reuse of the treated wastewater and sludge in agriculture.

Taking into account the objective of the Tunisian Government of at least 50% treated WW reuse in agriculture (as a MAR technique), it is estimated that in total the ten WWTPs will make available to farmers up to 40,000 m^3/day of additional treated wastewater at the end of the project horizon (2045) indicating an increase of an increase of wastewater reused in agriculture from 9% to 50% (Table 8). This figure is very encouraging and completely in line with the Tunisian government's target so upgrading the WWTPs to tertiary treatment is strongly recommended.

Finally, the potential volume of the digested sludge (10-15% total solids) can be estimated at 1,357 m^3/day of sludge which can be applied on agricultural lands. The socio-economic benefits from the sludge reuse is expected to lead to increased revenues for local famers (especially women) and reduction in unemployment in the regions where the WWTPs are located.

Table 9 Additional WW and sludge reused (m^3/day)

WWTP	Estimated flow rate (2025)	Estimated WW reused (2025)	Estimated additional WW reused (2045)	Potential digested sludge reused (2045)
El Kef	5,904	0	4,250	128
Teboursouk	1,239	0	1,095	33
Bouargoub	2,561	0	2,170	65
Jemmel	7,201	0	5,500	165
Sbeitla	5,027	1,106	3,004	123
Medenine	7,314	366	6,284	200
Tataouine	9,214	1,843	6,157	240
El Hamma	6,578	1,315	3,520	145
Kebili	3,570	107	3,253	101
Tozeur	6,836	0	5,250	158
Total	**55,444**	**4,737**	**40,483**	**1,357**

The program includes the following four major activities:

Upgrading of WWTPs
Upgrading of the ten WWTPs in Bouargoub, El Kef, Teboursouk, Jammel, Sbeitla, Medenine, Tozeur, Kebili, El Hamma and Tataouine is the subject of this component. These WWTPs are close to or have reached saturation. In general, the upgrading actions will consist of:

- improving the energy efficiency of the aeration system allowing for a better oxygen distribution in the basins, thus leading to better bacterial nutrients degradation and ultimately better control of the treated wastewater quality;
- strengthening the clarification system to guarantee greater flexibility of the treatment facilities and to improve the regularity of the treated wastewater quality, mainly during the periods when the existing clarifiers are out of service or require maintenance;
- improving the treatment capacity of the wastewater and sludge; and
- adding a tertiary treatment in order to comply with the limits related to bacteriological quality of treated wastewaters whether discharged into receiving water bodies or reused to irrigate agricultural lands.
- An exhaustive diagnostic of the facilities´ present conditions for each WWTP is necessary to develop a detailed upgrading plan.

Supply of operation materials
There is a need to better equip the ONAS material supply warehouse used for the operation and maintenance of the wastewater infrastructure to improve ONAS intervention capacity (Oxygen sensors, agitators, recycling pumps, hydro-curing, vacuums, sludge removal, mini-excavators, etc.). In addition, acquiring specific laboratory equipment for each WWTP will allow the operational staff to make simple quality analysis for basic parameters such as pH, TSS, BOD_5 or COD.

Capacity building
This component deals with training the staff of the WWTP to ensure proper operation and maintenance of the new equipment and facilities resulting from the upgrade of the WWTPs (Component 1) and acquiring new operation and maintenance supplies along with laboratory materials (Component 2).

Elaboration of Wastewater Management Master Plans
This component includes the elaboration of wastewater management Master Plans at the 2045 horizon for a number of governorates in which WWTPs will be upgraded. In particular, master plans will be prepared for the governorates of El Kef, Beja, Kasserine, Tozeur, Kébili and Tataouine.

Outputs

The outputs and associated activities described in detail below will be financed directly through GEF grant contributions under the MedProgramme. Given the wide scope of the proposed investment programme covering WWTPs in many different areas in Tunisia, the list below presents the range of proposed activities that could be activated with GEF funding on a case by case basis and depending on the specific nature and characteristics, level of maturity and geographical location of each proposed investment. A flexible, tailored approach to the adoption of Technical Assistance in these areas is considered essential to the success of the programme.

Output 1.11: Preparatory studies, finalized

In order for the investments to be ready for appraisal by EIB (or any other donor), preparatory studies need to be completed to ensure that:

- the technical solutions proposed are the most appropriate to the specific context;
- the environmental (e.g. impact on protected areas) and social (e.g. land expropriation) implications of the project have been duly taken into account;
- the climate risk vulnerability of the investments has been assessed and the required risk mitigation solutions costs were considered into the overall project design;
- the cost estimates are reliable;
- the financial sustainability of the investments has been secured through government support and/or the setting of an appropriate tariff system; and
- the necessary institutional capacity building elements for project implementation are identified (e.g. need for a specific Project Implementation Unit).

These elements are required to ensure the project will be properly implemented and lay the groundwork for the sustainable operation of the new infrastructure.

Output 1.12: Capacity enhancement of ONAS to operate and maintain wastewater systems completed

The upgrade and rehabilitation of existing WWTPs require additional staff, new skills and responsibilities for the technical and managerial staff. To ensure that the relevant WWTP staff is sufficiently capable of operating and managing the upgraded plants, a capacity building program needs to be put in place. The components of capacity building program will be identified and detailed in the feasibility studies.

On the other hand, it is known that ONAS does not charge the real cost for its services, mainly because of the inadequate tariff adjustments. The lack of long-term visibility with regard to the level of financial support hampers its operational capacity and there is an urgent need to initiate an inter-ministerial dialogue in order to achieve financial equilibrium not only via tariffs but also via tax revenue and budgetary transfers. This will enable ONAS to operate its plants and sewage networks at the required level and to plan its investments over the long term. The requirement for initiating a financial dialogue has been included among the disbursement conditions of EIB loans to ONAS on more than one occasion. This investment program will follow up on assisting ONAS in the implementation of the actions that will result from the financial dialogue which will ensure financial sustainability of ONAS and in return its ability to operate and maintain wastewater systems enhanced. Means of assistance will be identified and developed in the feasibility study.

In particular, the expected technical results of this investment program are as follows:

- upgrade the 10 WWTPs to allow them to fully comply with the national standard NT106.02 for discharge of treated wastewater into receiving water bodies;
- upgrade the 10 WWTPs to allow them to fully comply with the national standard NT106.03 for the reuse of treated wastewaters on agricultural lands;
- maintain uniform, regular and adequate quality of treated wastewater during peak flow discharges;
- maintain uniform, regular and adequate quality of treated wastewater supplied to potential agricultural users;
- improve the operation and maintenance of the 10 WWTPs by reducing and/or eliminating periods of dysfunction and therefore avoid the discharge of inadequately treated wastewaters into receiving water bodies;
- optimize the performance of the 10 WWTPs and increase their efficiency of energy use; and

- strengthen technical and management capacities of the national sanitation company.

Output 1.13: Wastewater Master Plans for the targeted regions are updated.
Activities: To properly operate within a jurisdiction, ONAS relies on the wastewater Master Plans that are regularly updated to cover a 10-year investment horizon. The wastewater Master Plans for the governorates of El Kef, Beja, Kasserine, Tozeur, Kébili and Tataouine which cover six of the 10 WWTPs are outdated and will need to be reviewed. A comprehensive wastewater Master Plan will include but is not limited to the following tasks:

- summarizing and describing the wastewater system;
- describing the service level goals for the system;
- projecting wastewater collection demand for the 10 and 20-year planning horizon;
- evaluating the wastewater collection system and identifying deficiencies;
- evaluating the wastewater treatment system and identifying deficiencies;
- analyzing available engineering and financial alternatives for maintenance and system improvements;
- recommending updates to the capital improvement program and operational structure of the wastewater collection and facility system; and
- identifying any regulatory concerns for the collection and facilities system.

GEF Added Value

Given the extensive needs and the limited financial resources for preparatory studies, the NAP investments in Tunisian hotspots would not be considered sufficiently mature for financing by the EIB or other IFIs and therefore either not materialize or take much longer to be prepared. Therefore, the GEF grant contribution through the TA needed to complete the preparatory studies will enable the engagement of IFIs and facilitate the identification of the necessary co-financing (loans and grants) by attracting the interest of other donors leading to timely implementation of the investments in the priority hotspots identified in the NAPs.

ONAS' poor operational performance and limited financial capacity to cover the operational costs reduces the sustainability of the capital investments in the medium to long term. The GEF grant contribution will be used to fund the TA that will identify the specific technical needs of ONAS and develop a detailed capacity-building programme. The implementation of the programme and the purchase of the equipment will then be funded as part of the overall investment programme by EIB and other co-financiers.

Wastewater Masterplans are the basis on which ONAS identifies the need for new investments. The GEF grant contribution will be used to finance the TA required for the preparation of these masterplans, in order to create the basis for a new round of strategic investments. Emphasis in the preparation of the masterplan will be put on the climate mitigation (e.g. sludge digestion) and adaptation (e.g. wastewater reuse) implications of the future investments and on the resilience to climate change of the existing and new infrastructure. In addition, the masterplans will be accompanied by a gender analysis in order to identify potential for women empowerment in the sector directly or through the reuse of wastewater/sludge in agriculture.

Table 10 Contribution of Child Project 1.2 to MedProgramme targets (Target Area 3: Tunisia)

Med Programme Targets for Child Project 1.2	**Specific contribution**
Risk reduction in at least two coastal hotspots	The project contributes directly to reduction in organic pollution loads discharged to 2 coastal hot spots identified in the 2015 NAP for Tunisia, namely Bay of Monastir and Gulf of Gabès.
At least 4 WWTP to be built or rehabilitated	The project involves the rehabilitation of 10 WWTP of which 5 will see their design capacity extended by more than 4,000 m^3/d.
At least 150,000 m^3/d of additional waste-water treated to secondary level	The additional (secondary) treatment capacity installed at the end of the project will be 39,000 m^3/d.
At least 20,000 m^3/d of	The additional wastewater reused in 2045 is estimated at over 35,000 m^3/d

additional treated wastewater reused	
At least 20,000 m^3/d of additional sludge digested	The additional sludge digested by 2045 is estimated at over 1,300 m^3/d

COMPONENT 2 - REGIONAL ACTIONS: HARMONIZATION OF RELEVANT STANDARDS (EXECUTING AGENCY: UN ENVIRONMENT/MAP MED POL)

Outcome 2: Effectiveness of environmental management by the Contracting Parties to the Barcelona Convention increased through the development of common environmental standards on desalination, aquaculture, and wastewater and sludge management.

Under component 2 of Child Project 1.2, specific activities will be performed to harmonize and upgrade the existing standards or develop new ones for sectors and activities causing significant pressures on marine and coastal environment in the Mediterranean: wastewater treatment, sludge management, desalination and aquaculture. It is expected that the definition and regional adoption of these standards will facilitate innovation and investments in sectors critical for the health of the Mediterranean Sea and its coastal zones.

Existing knowledge will be utilized, and best practices scrutinized to identify and develop appropriate performance benchmarks to ensure attainment of GES. Formulated standards will be accompanied by proposal of regional and national measures needed to implement them. Results of the work performed will feed into relevant MAP/Barcelona Convention (BC) processes for consideration, review and adoption by BC governing bodies. This process is aligned with the standard of the EU being this one of the 22 Contracting Parties of the Barcelona Convention.

This work will build upon and contribute to the ongoing efforts of the MAP/BC to develop six new/updated pollution reduction Regional Plans under the LBS Protocol, as well as to the General Fisheries Commission for the Mediterranean (GFCM) work on harmonization of norms and standards and development of adequate legal framework for sustainable aquaculture development.

In conducting specific activities to deliver the planned outputs and outcome, concrete experiences in WWTP upgrades, possible reuses of treated wastewater will be drawn upon to ensure appropriateness and feasibility of proposed standards. On the other hand, formulation of region-wide standards on wastewater and sludge management and strengthening of the regional legal framework is expected to contribute to creating room for application of new, more advanced technologies.

Regional standards with proposal of regional and national measures (and with supporting assessments, including, as appropriate, socio-economic analysis) will be developed over the course of project implementation for ultimate consideration and adoption by COPs 22 and 23 (to be held in 2021 and 2023 respectively).

Outputs:

Output 2.1 Regional standards on wastewater management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.

The topics to be addressed include: WWTP performance/ efficiency standards (including feasibility of setting such standards at regional level); quality of the effluent (addressing a range of pollutants including but not limited to BOD, nutrients, heavy metals, micro plastics) and regulating approach (ELVs or GES based environmental quality standards); pre-treatment standards for industries discharging into sewage systems; best practices/ new technologies to be considered; feasibility of setting region-wide targets for secondary and tertiary treatment; reuse of treated wastewater; infrastructure planning to ensure better control of runoff to minimize marine litter and contaminants inputs; and others.

Output 2.2 Regional standards on sludge management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.

As a minimum, sludge treatment and disposal methods should be addressed, and quality standards for the use in agriculture defined. Options of using sludge for energy production (either by biogas or direct incineration) will be also assessed and possibly included in the development of standards/proposal of measures.

Output 2.3 Regional standards on desalination; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.

To reduce impacts of rapidly growing desalination activities in the Mediterranean on marine[14] and coastal ecosystems and ensure attainment of GES, activities to further develop regional standards will be conducted under this output. Among other things, water intake, brine discharges (in terms of chemical and physical parameters), consumption and sources of energy, and monitoring of desalination activities will be addressed.

The costs to develop the standard for desalination will be covered with funds of the Barcelona Convention and not by GEF grants.

Output 2.4 Regional standards for reducing pollution from aquaculture; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.

The analysis to support development of standards and measures will look in particular into options for prevention and control of nutrients, scope for application of better management practices (BMPs), criteria for selection of sites, design of integrated monitoring programmes, and similar approaches. All the activities under this output will be conducted to ensure exchanges and coordination with FAO and GFCM work on aquaculture-related standards and criteria, and governance and management approaches for sustainable aquaculture. Possibilities for organizing joint meetings will be utilized to strengthen regional cooperation, ensure optimal use of resources and synergetic effects.

Activities:

For each output, a set of activities will be implemented following the same steps and approaches, these are:

- Technical assistance will be procured to provide for in-depth analysis of available information and to propose pertinent standards and measures for the four sectors/ activities addressed under Component 2. The proposals will be supplemented with appropriate levels of socio-economic analysis to ensure cost-effective solutions are identified and socio-economic implications, including gender aspects, are assessed to aid the decision-making process.
- Meetings organized in the framework of the MAP/BC system and its governing bodies, including MED POL Focal Points and EcAp Coordination Group meetings will be utilized to the greatest possible extent to enhance regional cooperation and conduct consultations. The need to have EcAp Correspondence Groups on Pollution and Marine Litter Monitoring review and recommendations on the development of standards will be considered as well. Moreover, four dedicated technical meetings will be organized within the project to discuss specific proposals and collect opinions of participating countries.
- Technical and consultative work will result with preparation of reports containing standards and measures for deliberation by the BC Contracting Parties.

Efforts will be made to ensure synergy with related initiatives and projects implemented within BC system, partner organizations and with other relevant stakeholders in the Mediterranean.

[14] Including water quality deterioration and biological effects due to the discharge of brine and chemicals used in the desalination process. Overall, desalination activities affect GES targets for a range of ecological objectives, in particular those related to pollution, biodiversity and coast and hydrography.

4) INCREMENTAL COST REASONING, EXPECTED CONTRIBUTIONS FROM THE BASELINE AND CO-FINANCING

The incremental reasoning of this Child Project is simple. By providing new and additional grant funding, the project is intended to (i) direct major investments in wastewater treatment systems to address pollution hotspots of transboundary concern along Mediterranean coasts identified through the TDA-SAP process and translated into national priorities in the NAPs, and (ii) assist the Barcelona Convention countries in establishing regional standards for wastewater treatment and reuse, aquaculture and desalination.

Both these critical, strategic and complementary steps might not be undertaken by countries without the GEF support and facilitation.

The project builds on the solid baseline described in the previous chapters, in terms of knowledge and preparatory works, and will leverage large financial resources from countries, the Executing Agencies, and IFIs.

The GEF funding will work in synergy with and complement Government baseline programs – as delineated in SAP-MED, SAP-BIO and the NAPs – and programs funded by other sources and described in the section 2b) of the Baseline Scenario. Its incremental role will be developed by supporting the implementation of NAPs (baseline contribution of Governments) and of other complementary actions (other co-financing) within coherent national and regional frameworks characterized by the systematic application of the principles enshrined in the Barcelona Convention Protocols to reduce the contamination related to the land sources of pollution.

National initiatives, strategies and projects have been thoroughly discussed with the GEF Operational Focal Points to ensure that these processes were recently finalized, or under execution, or they will be executed over the lifespan of the MedProgramme. In all cases, the outputs and outcomes of these processes will be contributing to and reinforcing the environmental benefits generated by Child project 1.2, and more in general the objectives of the whole MedProgramme. Specifically:

Egypt will contribute with USD 4,187,000 in-kind co-financing to reduce land-based-sources of pollution by reinforcing the national capacity on monitoring, pollution reduction, environmental inspection and awareness raising of the country.

Lebanon will contribute with USD 207,580,000 co-financing to support the: 1) clean the Litani River over the period 2017-2023; and 2) Lebanon environmental pollution abatement Project; 3) improving the country's capacity of the Environmental Compliance; 4) assessing the waste water of the Al Ghadir industrial plan disengaging in the Mediterranean Sea; and 5) Lebanese Water ad Agriculture Sector Programme to reduce point and diffuse sources of pollution, thus contributing to the more efficient sanitation of water in the country and amplifying the environment benefits produce by Child Project 1.2.

Tunisia will contribute with USD 1,684,400 to support a comprehensive set of projects and institutional actions aiming to reduce the land-based sources of pollution draining to the Mediterranean Sea in the Country.

The total co-financing committed by the project's countries (i.e. USD 213,451,400) will be monitored by the MedPCU and execution partners as well as discussed and analyzed at the inception meeting and following annual project Steering Committees.

5) GLOBAL ENVIRONMENTAL BENEFITS

This SAP implementation project including a blend a national and regional actions will accrue global environmental benefits in terms of:

- strengthened transboundary cooperation (Component 2);
- increased health in a globally significant ecosystem, the Mediterranean Sea (Component 1);

- improved capacity of coastal populations to adapt to climate change related impacts (Component 1).

6) INNOVATION, SUSTAINABILITY AND POTENTIAL FOR SCALING UP

The project presents a number of innovative aspects and aims at the broader adoption of its sustainable approaches and technologies.

Innovation: the project will implement two main innovative strategies: (i) testing the effectiveness of using GEF grant funding to direct national investments towards priority transboundary hotspots and targets, and (ii) remove barriers at the regional level to the systematic introduction of technological solutions in line with circular economy principles.

Sustainability: Sustainability is an integral part of Component 1 with sustainability considerations being twofold and covering not only the promotion of sustainable technical solutions to be prepared by the technical assistance but also the long-term sustainability of the ensuing investments. The technical assistance to be provided aims to contribute towards efficient and sustainable water resources management along the Mediterranean coast while promoting sustainable socio-economic development, protecting the environment and, where possible, addressing climate change. Further down the process, the realization of the ensuing potential investments through international financing also promotes sustainability of the prepared projects. This is due to the fact that international financing institutions such as the EIB customarily require assurances from the relevant authorities (in the form of loan conditions or covenants) relating to the achievement certain O&M targets such as O&M cost recovery, the development of a system of key performance indicators (KPIs) and the development of business plans. This is done in order to ensure not only the proper operation and maintenance of newly constructed and/or rehabilitated infrastructure but also the financial sustainability of the sector. To further improve project sustainability, internationally financed investments quite often include provisions for capacity building/ training for operators' staff to help ensure that financed assets are adequately operated and maintained.

In the case of the Component 2 (Standards) the sustainability will be ensured by the adoption by the Barcelona Convention parties which the project will facilitate. The standards developed by CP1.2, will became integral part of the operation of the convention which will continuously support tools and mechanism to reduce land-based sources of pollution as integral part of its core mandate.

Potential for broader adoption: It is expected that the combined impact achieved through the two Components will trigger the interest of countries in upscaling their investments in innovative and strategically identified solutions taking also into consideration transboundary priorities. Should the GEF grant funding prove to be effective in motivating IFIs to align their investments with regional transboundary priorities, these partnerships may have a high potential for replication, in the Mediterranean and beyond.

Gender mainstreaming: The project's emphasis on gender-specific goals and targets, mainstreamed within the broader results framework will also a pioneer a region-wide and country-specific action on the cross-cutting issues of gender, wastewater, sanitation and broader water security. It is poised to make innovative and tailored interventions, as well as generate information to address the knowledge gap that exists on these issues with high-quality evidence-based data and research from Egypt, Lebanon and Tunisia.

A.2. CHILD PROJECT? IF THIS IS A CHILD PROJECT UNDER A PROGRAM, DESCRIBE HOW THE COMPONENTS CONTRIBUTE TO THE OVERALL PROGRAM IMPACT.

The project design is aligned with MedProgramme's approach and Theory of Change, building on the notion that if investments in WWTPs will be targeted to Mediterranean hot spots of transboundary relevance; if investments will respond to the principles of the circular economy; if transboundary cooperation will ensure harmonization of standards and of monitoring procedures, the coastal populations living in environmental degradation hotspots along the southern and eastern Mediterranean shores will benefit from improved health conditions, more stable livelihoods and enhanced resilience to climatic change and variability, while transboundary eutrophication risks in the Mediterranean Sea will be

reduced.

The project therefore represents a fundamental building block of MedProgramme that might serve as example to be replicated broadly, and that will greatly benefit from the support of Child Project 4.1 and of its tools for promoting replication of best practices.
The Project will also foster compliance with a number of regional and global agreements, and support country efforts to achieve numerous targets of the Sustainable Development Goals, with focus on Goals 6, 13 and 14. The following table summarizes the project's contributions to the Agenda 2030 process (Table 11).

Table 11 Contributions of Child Project 1.2 to the Agenda 2030 Process

Sustainable Development Goals	**Child Project 1.2 Contributions**
1. End Poverty in all its forms everywhere	Targets 5, 1. a
5. Achieve gender equality and empower all women and girls	Target 5
6. Ensure availability and sustainable management of water and sanitation for all	Targets 1, 2, 3, 4, 5,6, 6.a, 6. b
8. Promote sustained, inclusive and sustainable economic growth, full productive employment and decent work for all	Targets 4, 9
12. Ensure sustainable consumption and production patterns	Target 2
13. Take urgent action to combat climate change and its impacts	Targets 1, 2, 3, 13. a
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Target 2

Child Project 1.2 – Theory of Change: from outcomes to impacts

Figure 9 Child Project 1.2 – Theory of Change: from outcomes to impacts

A.3. STAKEHOLDERS. IDENTIFY KEY STAKEHOLDERS AND ELABORATE ON HOW THE KEY STAKEHOLDERS ENGAGEMENT IS INCORPORATED IN THE PREPARATION AND IMPLEMENTATION OF THE PROJECT. DO THEY INCLUDE CIVIL SOCIETY ORGANIZATIONS (YES ☐ /NO☐)? AND INDIGENOUS PEOPLES (YES ☐ /NO☐)? [15]

A list of national and regional stakeholders and a description of their roles is provided in Annex S.

A.4. GENDER EQUALITY AND WOMEN'S EMPOWERMENT. ELABORATE ON HOW GENDER EQUALITY AND WOMEN'S EMPOWERMENT ISSUES ARE MAINSTREAMED INTO THE PROJECT IMPLEMENTATION AND MONITORING, TAKING INTO ACCOUNT THE DIFFERENCES, NEEDS, ROLES AND PRIORITIES OF WOMEN AND MEN. IN ADDITION, 1) DID THE PROJECT CONDUCT A GENDER ANALYSIS DURING PROJECT PREPARATION (YES ☐ /NO☐)?; 2) DID THE PROJECT INCORPORATE A GENDER RESPONSIVE PROJECT RESULTS FRAMEWORK, INCLUDING SEX-DISAGGREGATED INDICATORS (YES ☐ /NO☐)?; AND 3) WHAT IS THE SHARE OF WOMEN AND MEN DIRECT BENEFICIARIES (WOMEN X%, MEN X%)? [16]

Gender relations in the Mediterranean region are a kaleidoscope of overlapping social, economic and cultural roles, spread across a diverse multitude of countries and communities. The European Mediterranean countries have distinct social patterns and gender norms, are distinctive in certain facets, from the Middle East and North Africa (MENA) Mediterranean countries, for example. Additionally, the varying political situations in the region also determine how women and men are able to access and leverage sustainable development opportunities to be able to cope with environmental degradation, pollution risks, water stress, and pressures on wastewater management infrastructure (or lack thereof).

As Child Project 1.2 has a streamlined focus on the Middle East and North Africa (MENA) Mediterranean countries, the various disparities as well as commonalities in the region and among the countries require highlighting. Labor market dynamics, for example, exhibit a significant gender gap and is a regional issue: women's employment rates and labor force participation, as a general trend, are lower, along with an existing gender wage gap. Since economic capital is among the important determinants of coping capacities to external shocks (in this case, economic costs of water pollution and adequate wastewater infrastructures, and health risks arising from nutrient surplus in water bodies, mismanagement of wastewater and lack of public awareness), women (and other marginalized groups, including ethnic minorities) are more likely to be vulnerable. The 'double disadvantage' of the situation should also be reckoned with: due to lack of viable economic capital or socioeconomic rights, vulnerable groups are often excluded from, and limited by their lack of representation and agency, in water and sanitation policies, and wastewater management plans– increasing the possibilities of exposure to the threats looming in the Mediterranean region. Further, in Egypt, Lebanon and Tunisia, coupled with barriers to the labor market and employment opportunities, women face difficulties in garnering meaningful participation within civil society and political spheres. Decision-making power within the household and the polity is limited by the patrilocal organization of society and gender-based customs, reducing women's capacities to engage in the public sphere and gear development opportunities to safeguard their interests. In recent years, however, women have been capitalizing on opportunities presented by pluralistic interpretations of traditional gender norms and entering both the work force and the public space. That being said, the gains achieved through social change in this region may not keep pace with the risks and threats arising from the lack of: water security; collective management policies and infrastructure for wastewater; implementation of common environmental protocols and prohibitive laws; containment of land-based pollutants and waste in the backdrop of climate change and environmental degradation in the region. The burdens of emerging health risks and shocks resulting from these paucities, thus, may fall on the vulnerable groups.

From a water security perspective, long-term, target-driven efforts, monitored by an evidence-based system, towards wastewater, sanitation and water quality are a prerequisite[17]. Practitioner-focused and research literature have indicated

[15] *As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.*
[16] Same as footnote 8 above.
[17] Bradley, J. D. & Bartram, K. J. "Domestic water and sanitation as water security: monitoring, concepts and strategy" in Philophical Transactions, (Vol. 371 No. 2002). (2013)

that, despite indication of mounting environmental, social and health costs of wastewater mismanagement, nutrient pollution and lack of public awareness on these issues, there is a lack of recognition both by policymakers and governments. Further, where legislation, common protocols and regulation measures do exist, these are not updated in accordance to latest health research, exposure data, and environmental effects mapping, and generally lack specific policy focus[18]. The Child Project 1.2, thus, is timely. Through its capacity-building, information and public awareness, gender mainstreaming, and regional agreement outputs, the project will work towards reducing nutrient pollution and habitat degradation in coastal hotspots and bolstering regional efforts and understanding for wastewater and sludge management, desalination and aquaculture. Managing anthropogenic nutrient pollution sources is being given priority to enhance the health of the Mediterranean LME, while managing threats to the regional biodiversity and human population arising from these pollutants. The project addresses the current need to reinforce the institutional and technical capacity of stakeholders for the development and application of sanitation, wastewater and sludge management policies; to accelerate priority actions towards implementing common environmental standards; and, manage the social and environmental costs that are generated through the current baseline. It also provides the means for the Mediterranean countries to sustainably address a regional pollution hotspots issue, and to fill important knowledge gaps on the gendered facets of wastewater, sanitation and sludge management policies, alongside nutrient pollution, by different demographics of the Basin.

Additionally, given the project's focus, a gender lens is both necessary and relevant for the project to achieve its primary objective of bolstering a regional standard in the Mediterranean, improving human and ecosystem health, and managing nutrient pollution. Efforts will be made to incorporate the dimension of gender in a holistic manner in the project's activities: at the level of access and participation by capacity-building on how to mainstream gender-responsive actions; at the level of conscientization by simultaneously awareness-raising regarding the gendered and socioeconomic impacts of these crosscutting issues; at the level of policy through the development of common environmental standards and management plans and by engaging stakeholders on gender and socioeconomic aspects within policy solutions; and, at the level of knowledge by creating the impetus towards collection of gender-relevant data and information as pioneering effort to understand the crosscutting nature of gender and wastewater, sludge management and nutrient pollutants in the region. In this manner, the project can ensure both environmental and social co-benefits through its results framework, as well as proactive compliance with GEF, EIB and UN Environment gender mainstreaming mandates[19].

The gender assessment and Action Plan of Child Project 1.2 is attached as Annex O. The MedProgramme Gender Mainstreaming Strategy is attached as Annex Q.

[18] Isaacs, W. "Opportunities to Mainstream Gender in Water and Wastewater Infrastructure Projects: A Case Study in Barbados" in Graduate Theses and Dissertations from University of South Florida. (2017)

[19] Employing a strong mandate of gender mainstreaming and promoting women's empowerment as well as contributing to the international conversation on gender mainstreaming, the GEF, EIB and UN Environment have prioritized delivering inclusive and gender-responsive results, and mitigation solutions towards environmental issues, pollution risks, chemical hazards, and ecosystems degradation.
See GEF Gender Mainstreaming Guide (2017) & Gender Equality Policy at GEF (2017); EIB Group Strategy on Gender Equality and Women's Economic Empowerment (2016) & EIB Gender Action Plan; and, Gender Equality and the Environment: Policy and Strategy. UN Environment. (2015).

A.5 RISK. ELABORATE ON INDICATED RISKS, INCLUDING CLIMATE CHANGE, POTENTIAL SOCIAL AND ENVIRONMENTAL RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND, IF POSSIBLE, THE PROPOSED MEASURES THAT ADDRESS THESE RISKS AT THE TIME OF PROJECT IMPLEMENTATION.

Table 12: Risk for Child Project 1.2

Risk	Level of risk	Mitigation Measures
Lack of political support	Low	To support sustained commitment from governments, the project execution will be largely responsibility of national experts and officials who will be in charge in all major decision points.
Governments' capacity to borrow to support the required investments	Low	This is linked to the risk above, but it relates to a different aspect. Even if countries recognize investments as a priority they might not have the capacity to borrow from IFIs because of their current budget/deficit situation. Should this risk materialize, the project will strive to expand the grant component of the investment by liaising with additional donors' active donors in the region.
Political instability	High	As stated in the MedProgramme Programme Framework Document, "some southern and eastern Mediterranean countries are going through a period of political volatility and social unrest that might negatively affect the Program's full implementation". In view of this, Child Project 1.2 will be implemented only in those countries were conditions are considered stable and/or rapidly improving. It has to be fully appreciated however, that the deteriorated social conditions and migratory fluxes caused by economic, environmental, or political factors affecting parts of the regions object of the project, call for urgent support from the international community, support of which the project represents a meaningful signal.
Total amount of co-financing loans not realized	Low	The risk of this occurring has been mitigated during project preparation by focusing on identifying sites/investments that are considered of the highest priority in the three countries. A quick transition to on the ground implementation will help maintaining government's full support.
Delays in the realization of investments	High	Full involvement of national officials in project execution will contribute to mitigate this risk, likely to occur.
Availability of relevant information	Medium	In some countries in the region (e.g. Egypt) access to data is often difficult and can cause considerably delays in the investment preparation phase. The extensive work on data collection done during project preparation, together with the largely national execution of the project, is expected to minimize this risk.

A.6. INSTITUTIONAL ARRANGEMENT AND COORDINATION. DESCRIBE THE INSTITUTIONAL ARRANGEMENT FOR PROJECT IMPLEMENTATION. ELABORATE ON THE PLANNED COORDINATION WITH OTHER RELEVANT GEF-FINANCED PROJECTS AND OTHER INITIATIVES.

The institutional arrangement and coordination of the Child Project 1.2. is illustrated in Figure 10.

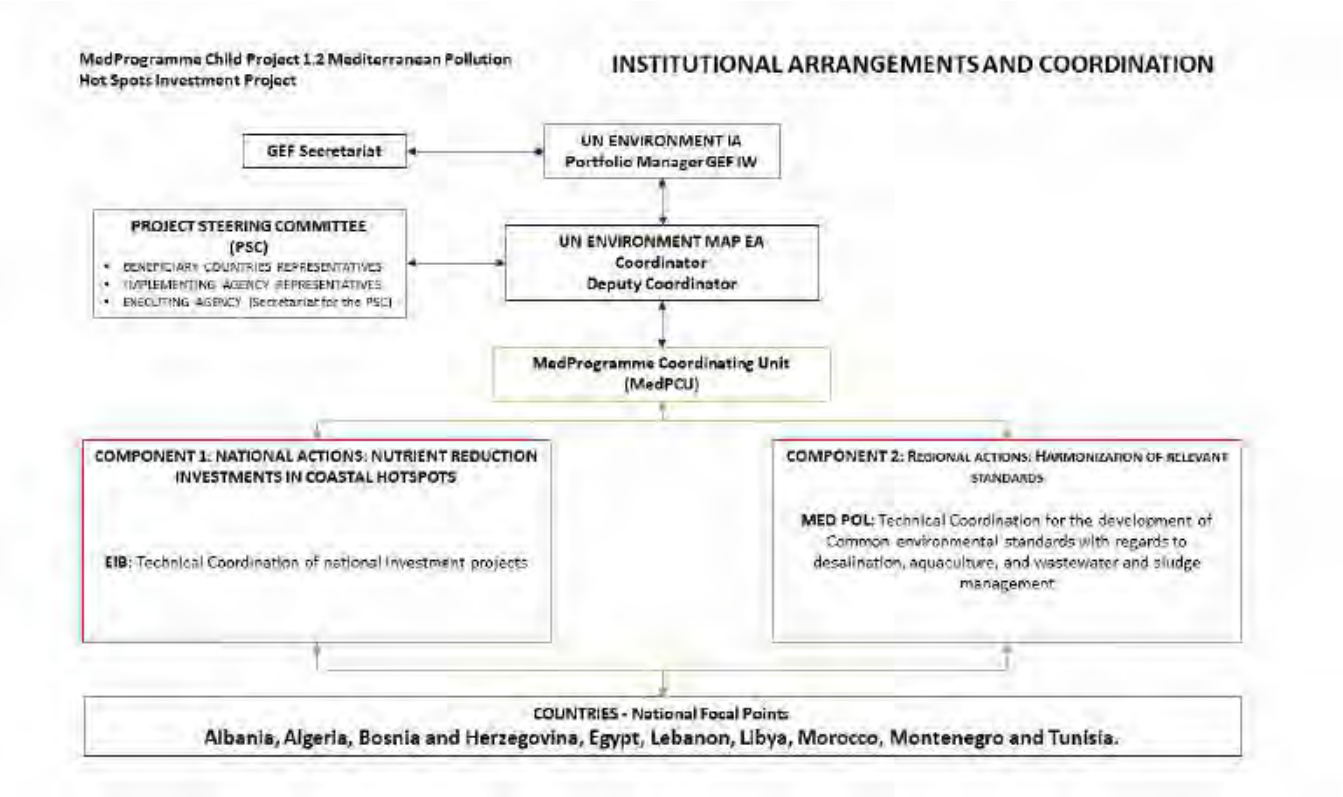


Figure 10 Institutional Arrangements and Coordination of Child Project 1.2

Implementing Agency (IA): The GEF Units in the Ecosystems Division of UN Environment will serve as Implementing Agency (IA) for Child Project 1.2. The IA will be responsible for overall supervision of the project and will oversee its progress through the monitoring and evaluation of activities and through progress reports. The IA will report on the project implementation progress to the GEF and will take part in the Project Steering Committee (PSC). The IA will provide guidance and oversight of project execution by the Executing Agency (EA) including through the review and approval of work plans, budget allocations and budget revisions proposed by the Executing Agency.

Project Steering Committee (PSC): The PSC will be established and will carry out the function of a Project Board. The PSC will consist of: 1) beneficiary countries, the IA and the Executing Agency (EA) representatives; and 2) the MedProgramme Coordinating Unit (MedPCU) acting as Secretariat for the PSC. These are the Members of the PSC. Countries will be represented at the PSC at a technical, decision making level, e.g. national focal points. Following the model of the PPG MedProgramme Regional Consultation Meetings, the PSC meetings will bring together International Water stakeholders, with parallel technical working sessions combined with plenary discussion and approval of workplans to maximize transparency and joint working across the two Focal Areas.

It is anticipated that to ensure an efficient use of the resources, PSC of different Child Projects of the MedProgramme will be organized back to back. These meetings will dedicate one session to inform the countries about the progress made by the entire MedProgramme followed by several sessions dedicated to specific decisions to be made by the countries for each Child Project.

The Executing Partners (EP) will intervene at the PSC to present the progress made and support the Secretariat for the PSC by providing background information on substantive and technical issues, as well as on modification to the Project Document and its annexes presented to the PSC by the MedPCU. The role of the PSC is to:

- Oversee the project;
- Provide overall guidance and ensure coordination among all parties;
- Provide overall supervision for project implementation;
- Approve the annual work plan and budget;
- Oversee the implementation of corrective actions;
- Enhance synergy between the project and other ongoing initiatives related to the GEF International Waters Focal Area;
- Ensure full coordination of the project with the entire MedProgramme.

Additional stakeholder representatives from private sector, academia, CSOs, NGOs, etc. can be invited to join the PSC during the project execution as observers. At all times, the PSC and its activities will comply with the policies, conditions and regulations of the UN and the GEF.

Executing Agency (EA): The UN Environment/Mediterranean Action Plan (UN Environment/MAP) will serve as the Executing Agency (EA) for the project. The EA will report on the project implementation progress to the IA (including those activities executed by the Executing Partners). The EA will organize the PSC and host the MedPCU which will act as Secretariat to the PSC. The EA will be responsible for, inter alia, the following required activities to achieve the project objectives, outputs and outcomes:

- Establishing, hosting and supervising the MedProgramme Coordinating Unit (MedPCU);
- Acting as Secretariat for the Project Steering Committee (PSC);
- Ensuring that the project is executed according to the agreed work plan and budget;
- Review and submit required reporting obligations to the IA, including quarterly expenditure reports and annual Project Implementation report (PIR);
- Ensuring all procurement is done in compliance with Agency standards;
- Communicating with and disseminating information to the Executing Partners (EP) and other stakeholders.

The EA will ensure that all activities, including procurement of goods and services, are carried out in strict compliance with the rules and procedures of UN Environment and GEF. The EA will be responsible for the establishment, adequate staffing and uninterrupted functioning, throughout the project's life span, of the MedProgramme Coordinating Unit MedPCU).

MedProgramme Coordinating Unit (MedPCU): During the project development phase of the Child Projects under the MedProgramme (GEF ID9607), particular attention was given to setting up a MedProgramme Coordinating Unit (MedPCU). The MedPCU was designed taking into consideration the high complexity of the MedProgramme. The staff under the MedPCU will have to deliver a multitude of cross-cutting functions across the Child Projects of the Programme. Moreover, particular attention was given to cost efficiency by centralizing the overall Programme management into a single cost-cutting unit, thus avoiding duplication of project management units, functions, task and deliverables. This choice will also ensure timely and consistent execution of the Child projects of the MedProgramme, allowing at the same time transfer of lessons learned and cross-fertilization. It is anticipated that the MedPCU will be staffed with the following core positions:

- MedProgramme Coordinator (P4)
- Programme Officer CW (P3)
- Programme Financial Assistant (G5)
- Programme and Administration Assistant (G5)

In addition to this, the MedPCU operations will be supported during specific periods of the lifespan of the Child Project 1.1, by one Gender Specialist and one Knowledge Management Specialist to be engaged through out-sourced contracts. The proposed organigram for the MedPCU is showed in Figure 11 below.

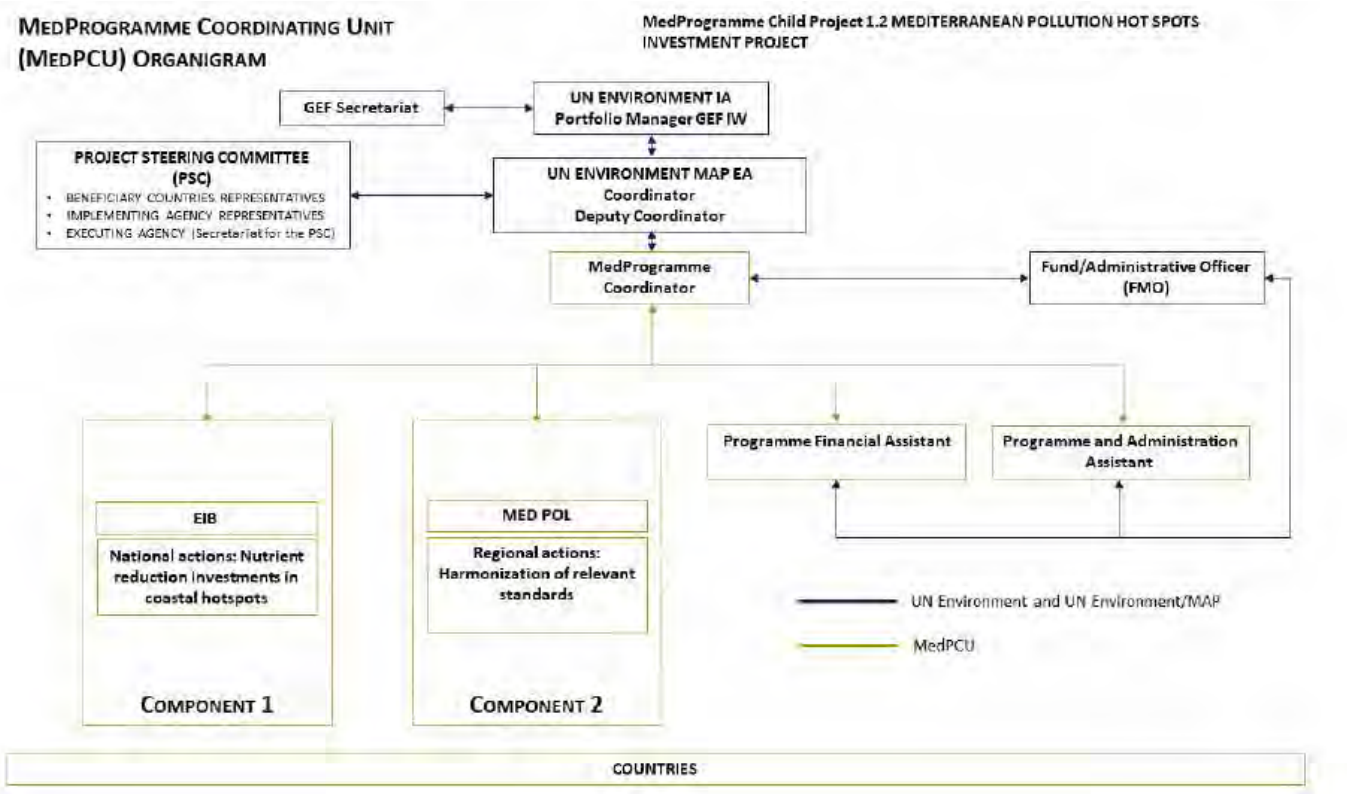


Figure 11 Organigram of the MedProgramme Coordinating Unit

The MedPCU will be established, hosted and supervised by UN Environment/MAP (Barcelona Convention). The MedPCU will ensure coordination across the entire MedProgramme and the consistent execution of the seven Child Projects implemented by UN Environment and executed by MAP (Barcelona Convention), as well as the Child Project implemented by EBRD. In terms of MedProgramme coordination, the MedPCU will provide management functions to the Child Projects implemented by UN Environment and executed by UN Environment/MAP and EBRD.

The Unit will be responsible for, inter alia, the following tasks:

Child Project 1.2 management services:

- Manage the flow of information from the field and produce periodic monitoring reports, namely quarterly financial expenditure reports; annual expenditure forecasts and procurement plans; half-yearly narrative reports of progress including the annual Project Implementation Review;
- Initiate, validate, sign and implement legal instruments with all bilateral partners including executing partners and countries where appropriate;
- Organize travel and payment of DSA for staff and consultants as needed;
- Coordinate and support the project activities of EIB (Component 1), and MED POL (Component 2);
- Organize the meetings of the Project Steering Committee (PSC) and serve as its Secretariat;
- Ensure the Project governance and oversight of the financial resources from the GEF investment and the co-financing delivered by the Project stakeholders.

Programmatic coordination:

- Ensure that the execution of the entire MedProgramme is aligned and integrated with the priorities of the Contracting Parties to the Barcelona Convention, its 2016-2021 Mid-Term Strategy and biennial Programmes of Work;
- Ensure that the execution of the MedProgramme Gender and Knowledge Management Strategies is consistent across the entire Programme.

- Establish a mechanism to monitor and evaluate progress towards the objectives of the MedProgramme as a whole.

MedProgramme Visibility:

- Represent the MedProgramme in global events and initiatives.
- Ensure that the Programme Annual Stocktaking Meeting is organized in a coordinated manner to efficiently serve the countries, IA, EA and stakeholders;
- Share the Project achievements, products/outputs with the Project and MedProgramme's stakeholders

The cost of the MedPCU will be covered by PMC, cash co-financing provided by the Barcelona Convention and to a minor extent, by the projects budget as detailed in Table XXX. Specifically, for Child Project 1.2 no project budget is allocated for technical tasks of the MedPCU because these will be executed by the executing partner (EIB).

Table 13: Details of the budget allocated for the MedPCU

MedProgramme Coordinating Unit (MedPCU)		Budget Allocated for the MedPCU US$		Total US$
	GEF Grants	PMC[1]	Technical Tasks[2]	PMC+Technical Tasks
Child Project 1.1 (GEF ID 9684)[3]	14,250,000	677,000	760,000	1,437,000
Child Project1.2 (GEF ID 9717)	*5,000,000*	90,000	-	90,000
Child Project 2.1 (GEF ID 9687)	7,000,000	333,000	90,000	423,000
Child Project 2.2 (GEF ID 9685)	*3,500,000*	166,000	84,000	250,000
Child Project 3.1 (GEF ID 10158)	*1,376,147*	65,500	58,500	124,000
Child Project 4.1 (GEF ID 9686)	*2,500,000*	119,000	95,000	214,000
SCCF Project (GEF ID 9670)	*1,000,000*	80,000	5,000	85,000
Total GEF Grants	33,626,147	1,530,500	1,092,500	2,623,000
Staffing costs as %:		5%	3%	8%

1: Including travel costs of the MedPCU's staff.
2: Details of the technical tasks executed by the MedPCU's staff are provided under the sections A.6 og the GEF CEO Endorsement Request Template and in Annexes E (Annex O for CP1.1 - 9684), of each child project submission package.
3: Breakdown of the 760,000 allocated for Techcnial Tasks: 485,000 US$ from CW grants for the Programme Officer CW and 275,000 US$ from IW grants for the technical support on TDA of the Med POL Officer.

Execution at National Level: The Beneficiaries Countries will designate a National Project Focal Point (NPFP) during the inception phase. The NPFP will act as the liaising person between the government, the EA and EP. The NPFP will be fully involved in the selection of the national consultants and experts which will support the execution of activities on ground under Components 1 and 2 of the Project. The NPFP will also facilitate collaboration with other country offices, as well as the MedProgramme Coordinating Unit (MedPCU). Moreover, special attention will be given in all countries to overcoming fragmentation across sectors in decision making related to project's goals and activities.

Executing Partnes:

Executing Partners (EP): The EP will execute activities of the project that fall within their core areas of expertise. They have been identified among (sub) regional institutions, UN, international and non-governmental organizations, on the basis of their mandates and broadly recognized roles and comparative advantages of in thematic areas of work relevant to the Project and MedProgramme. Based on these criteria, the IA will establish:

- Project Cooperation Agreement (PCA) with the European Investment Bank for the execution of the component 1 of the project.
- UN Environment/MAP MED POL will execute component 2 of the project as part of the Internal Cooperation Agreement (ICA) signed with the IA.

These arrangements will be established with full consideration of the applicable UN Environment and GEF principles and procedures, including cost-efficiency and effectiveness.

EIB will execute the national activities foreseen under Component 1 of Child Project 1.2. MED POL will execute the regional activities foreseen under Components 2 of the of Child Project 1.2.

Please refer to Annex H - Project Implementation Arrangements for further details on the specific roles and tasks of the Executing Partners.

Additional Information not well elaborated at PIF Stage:

A.7 BENEFITS. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS. HOW DO THESE BENEFITS TRANSLATE IN SUPPORTING THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS (GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF)?

The project will have clear and substantial beneficial impacts at both the national and the local level. By focusing on major hotspots and securing country commitment to invest in reducing the discharge of nutrients and other contaminants into the Mediterranean Sea, the project will contribute to improve marine and freshwater quality in the coastal areas of Egypt, Lebanon and Tunisia, avert the risk of creation/expansion of dead-zones, decrease pressures on coastal lagoons and other freshwater dependent ecosystems, such as Lake Manzala in the Nile delta, restoring healthier environmental conditions and ecosystem services.

The project will also promote investments in treated wastewater reuse, thus enhancing water security at the local level, and support the adoption at the regional level of common standards for wastewater sludge management, desalination and aquaculture, that will facilitate the broader adoption and environmental sustainability of these practices, and accrue benefits at the regional, national and local levels.

These national or local benefits will all be derived through actions also aimed at accruing global benefits in line with the provisions of the GEF Instrument. Global benefits will relate to (i) restored integrity of a globally significant transboundary large marine ecosystem and of its coastal areas through multi-country cooperative actions; (ii) more effective protection of globally significant coastal ecosystem goods and services through enhanced transboundary cooperation.

A.8 KNOWLEDGE MANAGEMENT. ELABORATE ON THE KNOWLEDGE MANAGEMENT APPROACH FOR THE PROJECT, INCLUDING, IF ANY, PLANS FOR THE PROJECT TO LEARN FROM OTHER RELEVANT PROJECTS AND INITIATIVES (E.G. PARTICIPATE IN TRAININGS, CONFERENCES, STAKEHOLDER EXCHANGES, VIRTUAL NETWORKS, PROJECT TWINNING) AND PLANS FOR THE PROJECT TO ASSESS AND DOCUMENT IN A USER-FRIENDLY FORM (E.G. LESSONS LEARNED BRIEFS, ENGAGING WEBSITES, GUIDEBOOKS BASED ON EXPERIENCE) AND SHARE THESE EXPERIENCES AND EXPERTISE (E.G. PARTICIPATE IN COMMUNITY OF PRACTICES, ORGANIZE SEMINARS, TRAININGS AND CONFERENCES) WITH RELEVANT STAKEHOLDERS.

The Child Project 1.2 will be managed under the umbrella of the MedProgramme, which is composed of eight Child Projects addressing the GEF focal areas of International Waters, Chemicals and Waste, and Biodiversity. Effective knowledge management (KM) is a core leveraging mechanism of the MedProgramme to achieve up scaling of approaches, policies and technologies promoted by the Programme at multiple scales. The Knowledge Management Strategy (Annex P) will be implemented under Child Project 4.1 and will support the KM activities of all Child Projects, maximizing their effectiveness in providing opportunities for south-south learning, fostering intergovernmental cooperation, using monitoring and evaluation (M&E) tools and geospatial services, applying best practices and developing portfolio-wide training and communication strategies.

A centralized system coordinated by the MedProgramme Coordinating Unit (MedPCU) is designed to capture, digest and share the vast amount of information and knowledge generated across the MedProgramme portfolio with its intended audiences and stakeholders. Each Child Project participates in the common knowledge management (KM) strategy in order to maximize efficiency, ensure good governance of the portfolio and achieve greater impact at the different functional levels identified (portfolio level, general public level and policy- and decision-making level).

The full KM Strategy of the MedProgramme (Annex P) is annexed to each Child Project document for transparency and ease of reference.

While specific needs related to the diverse outputs of the individual projects will be analyzed on a case-by-case basis, all Child Projects are expected to contribute to the overall MedProgramme KM activities as described in the following text (included in the project documents of each of the Child Projects).

KM Platform

A web-based knowledge hub comprised of a data and information management system (with both public and restricted access) and a combination of visualization tools to serve the portfolio's needs will be implemented by the MedPCU in close consultation with all Child Projects. The integrated platform will host: (1) a project management/coordination tool; (2) a public portal including sub-webpages for each Child Project; (3) visualization tool(s) to display digitalized representation of data through GIS and other suitable means; and (4) a database for raw/primary data.

Child Projects are expected to contribute to each of these components as follows:

1. Upon initiation of the MedProgramme, every Child Project will receive specific training on how to use the project management tool selected by the MedPCU. Features powered by this tool include (but are not limited to): automated reporting, task monitoring, calendars, live editing, Gantt–Charts, time tracking, encrypted security, back-ups, file management and cloud repository, integration with other products, role-based access control, mobile apps, email integrations, and discussion boards. Project managers (and designated project collaborators) are expected to use the tool to facilitate communication and information exchange throughout the MedProgramme, promote knowledge sharing and peer-to-peer learning, ensure tracking and monitoring of progress, and meet their reporting requirements for the MedPCU.
2. The outward-facing portal will be populated with key information showcasing progress towards impact and the contribution of the MedProgramme to global and regional environmental goals. In addition to the umbrella portal, each Child Project will have dedicated sub-pages for their specific projects. The Child Projects are expected to provide regular information (in different multimedia formats) to generate content for their respective project sub-pages and the overall programme portal. The MedPCU will be responsible for curating the information provided and packaging them for the intended audiences.
3. One or more visualization tools will be used to display information generated by each project. Different types of data (be them quantitative, normative or qualitative) are best visualized through a variety of ways, such as GIS, story maps, map dashboards, infographics, trend line charts, etc. Child Projects will be prompted to submit their inputs on a rolling basis to make sure that every result/achievement is captured through one or more of these tools.
4. A shared data model/protocol will be agreed at the beginning of the MedProgramme to ensure that projects will compile relevant data with a standardized approach and enable a harmonized data entry system. Issues related to open data, ownership, quality and review of data will be addressed in this exercise; a mapping of voluntary standards will help to evaluate feasible options. Raw/primary data will be stored in a database with flexible restricted/public access.

Milestone Events

Annual Stocktaking Meetings

All project partners are expected to attend, and meaningfully participate in, the Annual Stocktaking Meetings of the MedProgramme. These are major regional events organized by the MedPCU in cooperation with all Child Projects and country representatives and will take place on a rotation basis in different project countries. The meeting will involve: all Child Projects and Governments of the participating countries, the MedProgramme's implementing and executing agencies, the GEF Secretariat and Independent Office of Evaluation (IOE), Convention Secretariats, the UN Environment Global Program of Action (GPA), as well as major regional and global NGOs, representatives of those Mediterranean countries not participating in the MedProgramme, bilateral and multi-lateral donors, IFIs, the UfM, other regional intergovernmental organizations (Sahara and Sahel Observatory, etc.), and major private sector coastal area

actors, water users, tourism associations and the shipping industry. Representatives of faith-based leaders, women's organizations, youth organizations, fashion/art/sport testimonials, media specialists, among other relevant groups will also be invited to participate in these events, following a dedicated stakeholders' analysis.

These meetings aim to establish synergistic interactions among Child Projects, and with other relevant initiatives and stakeholders, including with all other Mediterranean countries not participating in the MedProgramme. The Annual Stocktaking Meetings will provide an opportunity to all Child Projects to showcase their implementation advancement, progress towards impacts and problems encountered, and to engage with a broad audience of peers and stakeholders sharing similar objectives within the overarching goal of achieving environmental security in the Mediterranean Basin. The Annual Stocktaking Meetings will be an occasion for face-to-face knowledge exchanges, south-south and north-south learning, and promotion of the broader adoption of MedProgramme approaches and solutions. The participation of regional and global media will raise public awareness across the Mediterranean countries and beyond. The design, objectives and architecture of the Annual Stocktaking Meetings will be defined during the first year of MedProgramme operation and approved at the Child Project 4.1 Steering Committee level. Child Projects will be informed about modalities for their contributions in detail. The first Annual Stocktaking Meeting will be held during the second year of MedProgramme execution.

GEF events
The MedProgramme will be featured in all relevant GEF events and activities involving the four focal areas addressed by the Programme (International Waters, Chemical and Waste, Biodiversity and Climate Change). For the IW focal area see "Synergies with IW:LEARN".

Global events
Experiences and lessons learned from the MedProgramme will be of relevance for a number of global processes shaping polices related to the sustainable management of natural resources in coastal areas. Participation in selected global and regional events, as well as in significant ongoing awareness raising campaigns, will be evaluated by the MedPCU according to relevance and impact criteria. Child Projects will contribute to these events in different forms, ranging from physical attendance, production of specific products, content and multimedia material to be packaged in suitable products.

Launching/Closing events of the MedProgramme
The design and practical details of these events will be planned during the inception phase of the MedProgramme. Considering the staggered initiation timeframes of the different Child Projects, a launching event of the MedProgramme could be organized in the form of a press conference to coincide with the kick-off of the Support Child Project 4.1. Basic communications material about the objectives of the MedProgramme (such as visual identity, slogan, mission statement, description of Child Projects, informative brochure, short promo video, basic online pages, etc.) should be prepared prior to the launching event. Project managers will be timely informed about practical details of these events and modalities for contribution.

Sharing knowledge and building capacity
One of the objectives of the MedProgramme is to improve the capacity of key regional stakeholders and build socio-economic resilience of impacted communities. To this end, a series of knowledge exchanges will take place at different levels taking inspiration and practical lessons learned from the GEF Partnership (reflecting the wealth of experience and examples from projects and programs around the world) and other relevant Organizations involved.
At the portfolio level, the MedPCU will capacitate Child Project teams with knowledge and training that can help them to deliver better project results and achieve greater impact. The identification of topics and modalities of exchange (face-to-face, virtual meetings, Communities of Practice, Expert visits, Study Tours, manuals, among others) will be defined at the beginning of the Programme implementation. Preliminary topics could include:

1) Gender mainstreaming and stakeholders' engagement;
2) Scientific communication: bridging the gap between scientists/technical practitioners and media specialists;
3) Lessons learned from the MedPartnership and the ClimVar and ICZM projects.

It is expected that these knowledge exchanges will further empower project stakeholders, enhance cooperation, strengthen the institutions they represent and ultimately influence policies and norms for better management of natural resources in coastal areas.
Additionally, Child Projects will participate in learning exchanges by twinning with other relevant GEF IW projects as facilitated by the GEF IW:LEARN Project (see more below).
Moreover, the MedPCU will support specific capacity building activities foreseen by each Child Project by taking stock and amplifying results through the programme-wide outreach.

Communication, outreach and awareness raising

MedProgramme identity
In terms of visibility, the MedProgramme will be presented in a holistic and coherent way (i.e. clear vision statement and positioning, visual identity, logo design, etc.) showing consistency and integration across the portfolio. At the same time, each Child Project will be granted individual identities within the overall MedProgramme-branding in order to promote specific activities and benefit from ad hoc services. This will entail the design of consistent logos for each Child Project, creation of sub-websites within the MedProgramme web-portal, organization of tailor-made trainings, preparation of specific publications, social media services, among others.
To this end, the MedPCU will develop, in close consultation with project managers of all Child Projects, a proposal and, once adopted, all Child Projects are encouraged to use it consistently.

Newsletters (Med Bulletin)
Periodic MedProgramme Bulletins will be published (every six months or on a quarterly basis) to showcase progress of the Programme as a whole and of individual Child Projects, including highlights of results, success stories and project events, and relevant global, regional and national relevant meetings and events. It will be one of the primary tools for tracking achievement of targets and milestones for all Child Projects, based upon the corresponding results frameworks. Bulletins will feature a "journalistic" style making the content appealing for a wide range of audiences. Therefore, all Child Projects are expected to contribute to these Bulletins with different types of inputs in order to document their activities and progress, such as high-quality pictures, articles, statistics, quotes, interviews, footage, among others. The MedPCU will inform all Child Projects about the format of these bulletins and the corresponding timelines for submission.

Storytelling for advocacy
A number of traditional storytelling instruments will be blended with innovative and creative approaches to increase dissemination and advocacy efforts. Particular emphasis will be given to the preparation of high-quality short movies and animations, graphic novels, documentaries, podcasts/radio programmes, infographics, digital interactive stories/articles/interviews, microblogging, e-books, art exhibits, among others. The MedPCU will inform Child Projects about the type of multimedia material that will be necessary to collect for the preparation of these products.

Translations of key communications outputs will be carried out in English, French and Arabic to ensure ample dissemination in the participating countries. Specific translations in other national languages will be considered in light of budget constraints and upon due evaluation of stakeholders' needs.

Social Media
Facebook, Instagram, YouTube and Twitter are four social media tools suggested for use by the MedProgramme. Development of timely and appropriate content and material to populate these channels is indispensable to achieve the desired impact. Child Projects will be prompted to contribute with relevant and ad-hoc information, pictures, statistics and other data to enrich the social media campaign.
The use of hashtags will be coordinated with the GEF IAs and EAs and project and country representatives of the Programme in support also of other related initiatives and campaigns.
The registration on the above-mentioned channels (or a selection of them) will take place at the beginning of the Programme and content population will start as soon as data and information from the projects becomes available.

Engagement with media and testimonials

To maximize impact of the MedProgramme and share its findings and results with the widest possible audience, the MedPCU aims to reach out to a different number of media outlets and journalists with a view to establish long-lasting collaborations. To this end, Child Projects will be asked to facilitate contacts with national and local media of the countries where the activities are implemented (for instance, by providing the MedPCU with a list of relevant contacts). A series of direct interactions with communications specialists, media experts and social media influencers is foreseen by the KM Strategy throughout the duration of the Programme to increase mutual understanding and flow of information.

The MedPCU also aims to reach out to renowned personalities from different realms (such as art, sports, entertainment or fashion) to act as ambassadors for the MedProgramme and raise awareness about the main environmental challenges (and solutions) in the coastal areas of the Mediterranean. The Child Projects will be prompted to suggest names, and facilitate contacts when possible, of suitable and potential "goodwill ambassadors" of relevance in the region.

Synergies with the GEF IW:LEARN and LME:LEARN Projects

The MedProgramme will closely collaborate with the GEF International Waters Learning and Resource Exchange Network (IW:LEARN) Project to facilitate uptake of lessons learned and knowledge exchange from/to the MedProgramme portfolio.

Cooperation in the following activities will be particularly addressed:

- Participation to the GEF International Waters Conferences (landmark biannual events of the IW portfolio). The first MedProgramme contribution is expected for the 10th edition of the IWC in 2020.
- Production of Experience Notes (short case studies) produced by Child Projects to showcase worthy results and disseminated through IW:LEARN channels and the MedProgramme KM platform. The format of Experience Notes is standard (https://iwlearn.net/documents/experience-notes)
- Participation to IW:LEARN Twinnings with other GEF relevant projects and programs.
- Contribution to IW:LEARN.net with specific content (i.e. data visualization).
- Contribution to social media, news, events, etc.
- Participation to GEF Communities of Practice (CoPs) on IW, CW, when relevant.

Strengthening the Science-Policy Interface (SPI) and Influencing Decision-Making

Replication Atlases

A number of highly informative National Replication Atlases, translated in relevant languages, will be produced to stimulate replication of successful practices demonstrated by the Programme and encourage regional and global dialogue. Broader adoption and replication of the successful policies, practices and technologies implemented under the Programme will be promoted through these means, highlighting areas and situations where replication of the Programme's demonstrations should preferentially occur.

Relevant results of Child Projects will be featured in the Atlases and the MedPCU will inform about the participatory process to collect and present the inputs.

Technical reports and scientific publications

The MedPCU will ensure that relevant scientific reports and scientific peer-reviewed publications are prepared by the various Child Projects providing technical information about the achievements of the Programme.

Specific guidance on how to concretely contribute (format, frequency, purpose, etc.) to each of the aforementioned activities will be provided during the initial phase of the Programme as a result of targeted consultations carried out by the MedPCU.

B. Description of the consistency of the project with:

B.1 CONSISTENCY WITH NATIONAL PRIORITIES. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS SUCH AS NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCS, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, INDCS, ETC.:

The project will adhere to the priorities set forth by the countries in their respective national strategies and action plans for the implementation of the provisions of the Barcelona Convention and ICZM protocol, will implement SAP MED and NAPs priority actions, and address issues of transboundary concern identified by the TDA and agreed upon by the countries.

C. DESCRIBE THE BUDGETED M &E PLAN:

Project execution performance will be monitored through the following standard GEF M&E activities. The associated M&E budget and work plan is provided in Annex G-M&E Budget and Work Plan.

Project start:
A Project Inception Workshop will be held within the first 8 months of project start, with participation of those with assigned roles in the project organization structure. The Inception Workshop is crucial to building ownership for the project results and to plan the annual work plans for the first 2 project years. It is anticipated that the Inception Workshop will also be the de facto first meeting of the Project Steering Committee.

The Inception Workshop will address a number of key issues including:

1. Assisting all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UN Environment, MAP and MedPCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms.
2. Based on the Project Results Framework and the International Waters GEF Tracking Tool, the Annual Work Plans for the first two years will be finalized. Indicators, targets and their means of verification will be reviewed, revised (as needed) and agreed, and assumptions and risks will be re-checked.
3. A detailed overview of reporting, monitoring and evaluation (M&E) requirements will be provided. The Monitoring and Evaluation work plan budget will be agreed and scheduled.
4. Financial reporting procedures and obligations will be discussed.

Project governance meetings will be planned and scheduled, and the overall project governance mechanisms will be reviewed and further fine-tuned, giving particular attention to cost-efficiency, enhanced stakeholder ownership, and the continuity of efforts towards SAP implementation beyond the project life span. Roles and responsibilities of all project organization structures will be clarified, and a meeting/reporting calendar will be elaborated.

Together with the GEF approved Project Document, the Inception Workshop Report will constitute a key reference document for the Project and will be prepared and shared with participants to clarify and formalize various agreements and plans decided during the meeting.

Annually:

Annual Project Review/Project Implementation Report (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (1 July to 30 June). The APR/PIR combines both UN Environment and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative);

- Project outputs delivered per project outcome (annual);
- Lesson learned/good practice;
- Annual Work Programme (AWP) and other expenditure reports;
- Risk and adaptive management; and
- GEF International Waters Tracking Tool indicators.

The APR/PIR includes will be prepared together by the EA (UN Environment/MAP) and the 2 EP, EIB and MED POL.

Mid-term of project cycle:

The IA Task Managers will organize and coordinate an independent Mid-Term Review, to determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; it will highlight issues requiring decisions and actions, and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the Mid-Term Review will be decided after consultation between the parties. The Terms of Reference for this Mid-Term Review will be prepared by the Implementing Agencies in line with the guidance provided by the UN Environment Evaluation Office.

The Evaluation Office will determine whether an independent Mid Term Evaluation (MTE) is required at the mid-point of project implementation, based on significant delays or implementation issues at that time. This is a more exhaustive and in-depth process which is conducted by the UN Environment Evaluation Office in collaboration with the Implementing Agencies.

Information in the GEF International Waters Tracking Tools will also be updated during the mid-term evaluation cycle.

End of Project:

In-line with UN Environment Evaluation Policy and the GEF's Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation.

The Evaluation Office will be responsible for the Terminal Evaluation (TE) and will liaise with the Task Manager and Executing Agency(ies) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UN Environment, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The Terminal Evaluation will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to the submission of the follow-on proposal. Terminal Evaluations must be initiated no later than six months after operational completion.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies[20] and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address

[20] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT

LIST OF ANNEXES CHILD PROJECT 1.2

- **Annex A** Project Results Framework CP1.2
- **Annex B** GEF Secretariat Review Sheet CP1.2
- **Annex C** status of implementation of PPG CP1.2
- **Annex D** calendar of expected reflows CP1.2
- **Annex E** Consultants to be hired CP1.2
- **Annex F1** Detailed GEF budget template CP1.2
- **Annex F2** Detailed GEF co-financing template CP1.2
- **Annex G** M&E Plan and Budget CP1.2
- **Annex H** Project Implementation Arrangements CP1.2
- **Annex I** Key Deliverables and Benchmarks CP1.2
- **Annex J** OFP Endorsement Letter MedProgramme
- **Annex K1** CO-FINANCING COMMITMENT LETTERS FROM PROJECT PARTNERS CP1.2
- **Annex K2** CO-FINANCING COMMITMENT LETTERS FROM COUNTRIES CP1.2
- **Annex M** ACRONYMS AND ABBREVIATIONS CP 1.2
- **Annex N** Project Implementation Timetable CP1.2
- **Annex O** Gender Assessment and Gender Action Plan CP 1.2
- **Annex P** MedProgramme Knowledge Management Strategy
- **Annex Q** MedProgramme Gender Mainstreaming Strategy
- **Annex R** Reports of the stakeholder consultations for CP1.2
- **Annex S** Complete list of National&Regional stakeholders for CP1.2
- **Annex T** The Baseline Scenario-Hotpsots in the Project Countries for CP1.2
- **Annex U** Figures Tables and Text Boxes for the GEF CEO ER CP1.2

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document or provide reference to the page in the project document where the framework could be found).

MEDITERRANEAN SEA PROGRAMME: ENHANCING ENVIRONMENTAL SECURITY					
To accelerate the implementation of agreed upon priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas while strengthening climate resilience and water security, and improving the health and livelihoods of coastal populations					
MedProgramme Component 1 - Reduction of Land Based Pollution in Priority Coastal Hotspots, and measuring progress to impacts					
Child Project 1.2: MEDITERRANEAN POLLUTION HOT SPOTS INVESTMENT PROJECT					
Project Objective	**Objective level indicators**	**Baseline**	**End of project target**	**Means of Verification**	**Assumptions**
Improving water security, human and ecosystem health, and climate resilience in coastal hot spots through national and regional actions	Number of national investment projects on untreated wastewater discharges reduction in Mediterranean hot- spots enabled through financial and technical assistance support (#).	In project countries wastewater still largely discharged untreated directly or indirectly in the Mediterranean Sea.	Three projects developed for further investments in WWTP construction or rehabilitation in major Mediterranean hotspots.	Reports on Investment feasibility studies (at least one per country).	- Availability of and access to relevant information - Governments' willingness to invest.
	Common environmental standards and guidelines on desalination, aquaculture, and wastewater and sludge management developed for adoption by all Mediterranean countries (Y/N).	No regionally accepted standards presently exist.	Standards prepared as an input for the deliberations of the Contracting Parties to the Barcelona Convention (Y/N).	Submission document.	- Consensus is reached between Contracting Parties to the Barcelona Convention to adopt the standards. - Countries agree on technical aspects and standards at regional scale

Component 1. National actions: Nutrient reduction investments in coastal hotspots					
Outcome 1	**Outcome indicators (units)**	**Baseline**	**Targets**	**Means of Verification**	**Assumptions**
Investments in upgrading WWTPs and reusing of treated wastewater, and/or remediation of former industrial sites, and/or depollution of catchment area in Egypt, Lebanon and Tunisia are secured through strengthened capacity and increased country commitments.	1. Volume of financing committed (US$).	n/a (or 0 for all six indicators)	1. USD 520M co-financing.	Reports and other technical documentation on Investment feasibility studies. Project finance agreement(s).	Countries committed to apply for loans for investments in wastewater collection and treatment.
	2. Number of coastal hotspots identified in country NAP targeted by investment projects (#).		2. At least three (3) coastal hotspots identified in country NAP targeted by investment projects to reduce pollution risk.		
	3. Number of WWTPs to be built or upgraded as part of the committed investments (#).		3. At least four (4) WWTP to be built or upgraded as part of the committed investments.		
	4. Additional treatment capacity for wastewater estimated from the committed investments (m3/d).		4. At least 150,000 m^3/d of additional wastewater to be treated to secondary level.		
	5. Additional volume of reused wastewater estimated from committed investments (m3/d).		5. At least 20,000 m^3/d of additional treated wastewater reused.		
	6. Additional volume of digested sludge estimated from committed investments (m3/d).		6. At least 20,000 m^3/d of additional sludge to be digested.		

Regional actions: Harmonization of relevant standards					
Outcome 2	**Outcome indicators (units)**	**Baseline**	**Targets**	**Means of Verification**	**Assumptions**
Effectiveness of environmental management by the Contracting Parties to the Barcelona Convention increased due to the development and application of common environmental standards on desalination, aquaculture, and wastewater and sludge management.	Number of common standard types developed and submitted agreed by countries (#) Technical documentation developed and agreed upon by project countries on common standards and measures (including supporting socio-economic analysis) (Y/N).	Lack of common standards and guidelines hinders the environmentally sound performance in sectors such as desalination and aquaculture; gaps in wastewater management and lack of regional regulations on sludge treatment/ disposal – all impeding the attainment of GES.	At least three (3) types of standards developed and submitted to the Contracting Parties to the Barcelona Convention for consideration: on desalination, aquaculture, wastewater and sludge management Technical documentation on standards and measures/ other key elements for the adoption of the new/ updated Regional Plans submitted to the Contracting Parties to the Barcelona Convention for consideration.	- Technical documentation of standards - Reports on submission to the Barcelona Convention - Decisions of the Barcelona Convention governing bodies.	- Countries reach agreements on technical details and common standards - Consensus of the Barcelona Convention Contracting Parties on application of new standards and measures

ANNEX B: GEF SECRETARIAT REVIEW SHEET

No specific comments on the activities, outputs and outcome of Child Project 1.2 were made by the STAP at PFD stage. Nevertheless the

One comment/question was received at GEF Council stage:

Question: Egypt lacks a sufficient number of wastewater treatment plants, causing large volumes of polluted Nile water to flow into the Mediterranean. Part of this GEF program seeks to "assess the volume of waste-water treated in private/public systems" and the "volume of recycled water in private/public systems returned to supply," which would provide useful data. But ultimately, Egypt's real need is for more wastewater treatment plants. Would this program address this fundamental need?

Answer: One of the objective of the MedProgramme is to reduce the excess of nutrients impacting human health and coastal habitats in the region. The Programme builds on the Barcelona Convention framework, is fully aligned with the National Action Plans (NAPs) for the implementation of the SAP MED on land based pollution reduction and works in synergy with the Horizon 2020 de-pollution of the Mediterranean initiative, funded by the EC.

The MedProgramme is expected to work on water sanitation to facilitate the implementation of the NAPs by UNEP/MAP, the EIB and the EBRD towards the development of bankable and sizable stress reduction investment projects. The focus is on innovative technologies which would allow to increase the water security of region while reducing the impact of organic pollution in coastal areas by looking at solutions that can efficiently improve the wastewater treatments as well as provide cost-efficient solutions to the countries (including treated wastewater reuse/reinjection and reinforcement of the Private/public investments). The wastewater related activities of the Programme focus on several Mediterranean Countries, among them Egypt.

The EIB Mediterranean Hot Spots Investment Programme (MeHSIP), will focus on the rehabilitation, upgrade and extension of the capacity of several existing wastewater treatment plants that currently are not treating the wastewater properly and thus contribute to the pollution of the Mediterranean Sea. The EIB identified several investments in Egypt which might potentially be developed under the MedProgramme:

1. Ras Al-Bar WWTP - Damietta
2. Al-Wasta WWTP - Beni Suief
3. Mazraa Al-Mai WWTP - Monoufia
4. Old Assuit 2 WWTP - Assuit
5. Old Salhyia WWTP - Qena

Moreover the EIB is currently managing 2 other wastewater related technical assistances in Egypt, i.e. the extension and upgrade of the Alexandria West wastewater treatment plant, the depollution of the Kitchener drain that looks into rehabilitation and upgrade of existing wastewater treatment plants and the construction of new wastewater treatment plants in 3 Governorates. Although these investments are not directly supported by the MedProgramme, they are instrumental to the overall objective of the Programme and more in general to the implementation of the Barcelona Convention's protocols.

The EBRD has been engaged in very large scale projects financing waste water treatment plants in Egypt since it established its operations in the country. While the EBRD will continue to finance large scale municipal waste water treatment projects in Egypt, its interventions under the MedProgramme will focus more on reducing pollution resulting from industrial, agribusiness, tourism sector operations, and smaller municipal projects. The Programme will complement other activities and products of the Bank in the private and municipal sector, such as NIF funded Sustainable Value Chains Competitiveness Programme, which aims to address among others environmental issues (including water and waste water issues) along the value chains of products.

Table 1: Comments of STAP and answers provided by the MedProgramme.

Comment received	Response at CEO Endorsement
PFD Review Sheet	
The majority of comments received in the Review Sheet for the PFD were all addressed at that time and were recorded as 'Addressed' in the Review Sheet. Some comments that remained are summarized below:	
Please change the submission in the country section, where it is noted to be a GLOBAL project. The project is regional, with participating countries having included endorsement letters.	Done in the portal submission.
In regard to chemicals and waste, please provide a description of the baseline projects in relation to PCBs and POPs chemicals	Please refer to the National Baseline tables and Baseline sections in the CEO Endorsement Request
A detailed M&E plan should be presented at the time of CEO endorsement.	Please refer to Section C of the CEO Endorsement Request and budget.
STAP Review	
The need for the proposed Programme is understood by STAP to be a demand for a coordinating mechanism for the implementation of actions identified through the MedPartnership project.	The actions that will be addressed in the MedProgramme were defined by the Countries after a long and complex participatory TDA-SAP process leading to the National Action Plans where all the major stakeholders at national level were involved along with the major decision makers and political institutions. The MedPartnership was instrumental in supporting the final phase of this process in order to ensure that the NAPs were developed by the countries in a coordinated and efficient sound manner.
The updating of the TDA proposed in Child Project 1.1 should not be permitted to distract from the implementation of the two agreed SAPs and various NAPs.	It will not, activities which address the SAPs and NAPs will be mainly implemented under CP1.2, 1.3, 2.1, 2.2 and 3.1. The CP 1.1 will work on POP and Hg, moreover it will ensure to put in place all the diagnostic tools that can help us to measure the progress to impact; being the updated TDA one of those.
It is not clear from the PFD that the child projects proposed have been designed in a participatory manner with national and local stakeholders, particularly with civil society representatives and community groups. The PFD still reads as largely a top-down document and proponents need to address this deficit, regarding roles, responsibilities and accountabilities of stakeholders especially at sub-national level.	As stated in the STAP "the Programme followed the successful implementation of the MedPartnership". The MedProgramme has been developed by request fo the countries and with an approach that considers all the major stakeholders who will be instrumental to the implementation of the proposed activities. For example, for the investment component, both EIB and EBRD, will use the NAPs which has been endorsed at national level with a bottom-up approach involving a wide number of stakeholders at national and local level. The same applies to the conjunctive surface and groundwater management which will be implemented in those countries that recognized its importance through processes which involved (under the MedPartnership) the main stakeholders.
It is not clear from the PFD that the child projects proposed have been designed in a participatory manner with national and local stakeholders, particularly with civil society representatives and community groups. The PFD still reads as largely a top-down document and proponents need to address this deficit, regarding roles, responsibilities and accountabilities of stakeholders especially at sub-national level.	As stated in the STAP "the Programme followed the successful implementation of the MedPartnership". The MedProgramme has been developed by request of the countries and with an approach that considers all the major stakeholders who will be instrumental to the implementation of the proposed activities. For example, for the investment component, both EIB and EBRD, will use the NAPs which has been endorsed at national level with a bottom-up approach involving a wide number of

	stakeholders at national and local level. The same applies to the conjunctive surface and groundwater management which will be implemented in those countries that recognized its importance through processes which involved (under the MedPartnership) the main stakeholders.
Therefore, the entire Programme design should provide for sufficient flexibility and appropriate adaptive management strategies to counteract political instability and continuously changing circumstances of the countries in the Mediterranean region	The adaptive management strategy at the MedProgramme level relies on one major tool, the Annual Stocktaking Meetings, part of CP 4.1 (output 2.2). Through these major meetings all issues of concern related to changes in political will or instability in the recipient countries will become manifest and allow for timely adaptive management responses at both the Child Project and at the Program levels.
During the further preparation of the Programme and its individual projects, STAP strongly recommends using a common analytical approach using scenarios to explore possible futures and identify specific intervention points for most impactful programme/project interventions.	Done. In the selection of the many hot spots addressed by MedProgramme, a homogeneous approach has been adopted including future scenarios, whenever necessary.
Ecosystem-based adaptation solutions could be explored.	Done. Nature based solutions, and circular economy approaches inform a number of CPs, in Particular CP 1.2 and 2.1.
Recognizing the current regional security context, STAP recommends developing further cooperative and transboundary infrastructure to protect human security of refugees and migrants by e.g., supporting livelihoods diversification among human traffickers.	The implementing and executing partners of the MedProgramme fully recognize such much needed actions, however based on discussion with the GEF Secretariat during the development phase such kind of actions do not seem to be under GEF mandate. Nevertheless, we believe that by increasing environmental security, the MedProgramme will indirectly strive improve the conditions of migrants, and regional stability.
Many of the Programme interventions are best described in the framework of the Source to Sea concept. Programme proponents are advised to consult the recently released Source to Sea conceptual framework to consolidate and design further often loosely connected activities of the Programme (available at: http://www.thegef.org/council-meeting-documents/conceptual-framework-governing-and-managing-key-flows-source-sea-continuum).	The source to sea conceptual framework, coupled with the GPA guidelines, has clearly inspired the MedProgramme design, which builds on the 40 years' experience, data, information and country ownership produced by the Barcelona Convention.
A priority not dealt with in Component 4 is provision of support to participating countries to incentivize application of IMAP to policy reform or implementation.	The IMAP has been endorsed by the Contracting Parties to the BC in February 2016. All the countries made provision for its implementation at national level. The intention of the MedProgramme is to support and coordinate part of this process at regional level. This will happen especially under CP1.1. Moreover, CP4.1 will implement a KM Strategy which on top of bring benefit to the Programme is also helping the countries to manage the data and information produced by the child project and transfer them, as needed, to the Barcelona Convention IMAP process.
The PFD does not provide substantive evidence of ownership (the word is missing from the entire document), beyond the formal country endorsements, and as is the case with regional projects in general, an emphasis on the demand side needs to be more fully demonstrated, especially for the proposed child projects.	On the contrary, the Programme builds on over 20 years of GEF IW involvement in supporting the TDA-SAP-NAPs process, and on the actions of the Barcelona Convention and of its Regional Activities Centres. This has ensured a level of country ownership rarely achieved in previous efforts globally.

There should also be consideration of potential non industrial sources of POPs and other toxic chemicals, and seeking out of the potential role of Integrated Pest Management (IPM) techniques to minimise use of pesticides in agriculture, horticulture, general pest control, vector control, structural preservation treatments and others.	The Chemicals and Waste component addresses non-industrial use of PFOS by fire fighting services, in line with the priorities expressed by countries in their NIPs. Country NIPs do not prioririze
Where there are data gaps as relates to chemicals pollution, there should be careful retention of such data in the course of implementing this project, as well as key lessons learned in the course of implementation of methods to curtail chemicals pollution from various sources, including the impacts of climate change and variability on the concentration and behaviour of harmful chemicals.	The Child Project 1.1 includes data compilation using a GIS platform on waste inventories and for tracking of disposal progress. It also proposes collection of data on gender aspects of exposure to these waste sites. Finally it will produce lessons learnt on prevention of new POPs and mercury. Through the links with Child Project 4.1 these knowledge products will be retained systematically in the wider KM systems and made available for stakeholders.
GEF Council	
Germany on OUTCOME 1: Reduction of land-based pollution in priority coastal hotspots and measuring progress to impacts. Germany suggests expanding the suggested focus on chemicals pollution (in particular POPS, PAHs, and mercury) to include also non-industrial sources of POPs of high relevance. Furthermore, a more detailed analysis for each country (how effective support and coordination will be reached) is recommended for better monitoring and evaluation purposes.	The reduction of land Bases Sources of pollution (LBS) and measuring of progress to impact in the Mediterranean Sea is based on a 15 years cycle stated with the Transboundary Diagnostic Analysis, followed by the preparation and endorsement by the countries of the Strategic Action Plan (SAP) for LBS (SAP-MED) and for Biodiversity (SAP-BIO). The implementation of the two SAPs led to the definition of national Action Plans were the hotspots of intervention in terms of LBS are clearly indicated and agreed upon by the countries. Unfortunately, this process did not included the tracking, monitoring and identification for POPs, PAHs and Mercury. , Nevertheless, the Child Project 1.1 (GEF ID 9684) of the MedProgramme addresses non-industrial use of PFOS by firefighting services, in line with the priorities expressed by countries in their NIPs. Country NIPs do not prioritize. Moreover, the work done by the Barcelona Convention on defining stocks of POPs and Hg in the Mediterranean countries, together with the further development of this information under the MedProgramme will allow a huge step forward in the region to support the countries in their effort of addressing this issue.
Germany on OUTCOME 4: Germany welcomes the promotion of an integrated coastal zone management (ICZM). Participatory management, thus the empowerment of user groups into the management decisions as well as the surveillance and monitoring is crucial for the projects' success. A stronger emphasis on alternative livelihoods for fishing communities is recommended.	Child Project 2.1 (GEF 9687) focuses on major coastal wetlands, lagoons, humid zones and coastal habitats, providing very valuable services and contributing to coastal livelihoods and biodiversity, are all in part or totally dependent on groundwater regimes. This included livelihoods for fishing communities. Moreover, being the MedProgramme executed under the umbrella of the Barcelona Convention, it will benefit of the ongoing partnership between the Convention and the General Fishery Commission of the Mediterranean which will introduce elements related to fishing in the Programme.
Germany on OUTCOME 7: Germany welcomes the improvement of management capacity as well as the expansion of the Libyan Marine Protected Areas (MPA). It is recommended to incorporate the high importance of artisanal fisheries for local food security and livelihoods. The MPA management plan should imply buffer zones	Artisanal fisheries is included in Child Project 3.1 (GEF ID 10158), concretely in its output 31 where the importance of artisanal fishery is recognized and supported by several activities such as the preparation and dissemination of a set of communication material to promoting artisanal

between the MPA and fishing areas. In these small strips local fishermen communities can use an exclusive access (ban for industrial fisheries) and benefit from extensive fisheries. Involvement of fishermen in the management of marine protected areas is crucial for their sustainability.	sustainable fishery heritage in and around the selected MPAs.
Germany on the MedProgramme: Lobbying for a higher political prioritization of the implementation of national fishery policies and frameworks promoting sustainable marine resource management.	Although this activity is not directly included in the MedProgramme (which mainly addresses the priorities defined by the Mediterranean Countries under the Protocols of the Barcelona Convention), implementation of national fishery policies and frameworks promoting sustainable marine resource management it is focus of the collaboration partnership between the Convention and the General Fishery Commission of the Mediterranean. Outcomes and outputs of this partnership will be linked to the MedProgramme.
Germany on the MedProgramme: 'Blue Carbon' offsets as an economic potential for coastal villages.	Although we recognize the importance of the comment made by Germany, 'Blue Carbon' offsets as an economic potential for coastal villages is not in the scope of the MedProgramme. However, being the Programme executed in the wider framework of the Barcelona Convention process linkages with Blue Carbon offset and related matter will be explored and certainly made if appropriate.
Germany on the MedProgramme: Decentralized adaption strategies for the intrusion of saline groundwater into aquifers. In sunny areas PV-driven small-scale desalination plants could allow local approaches.	Although we recognize the importance and tehcnial relevance of the comment made by Germany, desalination plan/processes/standards are not eligible under GEF 6 therefore have been removed by the Programme. Nevertheless, under Child project 1.2 (GEF ID 9717), the Barcelona Convention will develop common environmental standards on desalination for the Mediterranean Region by using NON-GEF funds. These standards will be submitted to the Conference of Contracting Parties of the Convention for consideration. If approved they will be the first step to support the approach suggested by Germany.
Germany on the MedProgramme: The involvement of wastewater reuse and freshwater consumption reduction strategies.	Child Project 1.2 (GEF ID 9717) is promoting investments at national level will focus on WWTP Extension and upgrade including treated wastewater reuse/reinjection (MAR) to decrease water consumption in the countries where national actions will take place (Egypt, Lebanon and Tunisia). Moreover the same Child Project will develop regional standards on wastewater management (including reuse) for deliberation of the Contracting Parties of the Barcelona Convention.
Germany on the MedProgramme: More investments into wastewater-treatment facilities for the reduction of heavy metals, endocrine disrupters, plastic and other pollutants as runoff in the Mediterranean Sea.	Under Child Project 1.2 (GEF ID 9717) EIB will mobile more than USD 600M in investments on WWT facilities in Egypt, Lebanon and Tunisia. Moreover, the MedProgramme is already generating interest of other potential investors to engage in advanced WWTP in the region to achieve reduction of LBS of pollution and increase climate change adaptation resilience.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[1]

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF:			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF/CBIT Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
International consultant(s) to provide expertise and technical assistance in the collection of baseline data, definition of the activities and preparation of the ToRs	120,000	96,385	
Travels to the countries for the national meeting(s)	28,000		
National / Inception meeting(s)	2,000		
Second Regional Consultation for the MedProgramme		3,807	
Total	150,000	100,192	0

[1] If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used**)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

N/A

ANNEX E: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF RESOURCES

Position Titles	*$/ Person Week**	*Estimated Person Month*	*Tasks to Be Performed*
For Project Management			
Local			
International			
Justification for travel, if any:			
For Technical Assistance			
Local			
International			

Project No: GEF ID 9717
Project Name: Mediterranean Pollution Hot Spots Investment Project
Project Short Name: CP1.2 - MedProgramme
Programmatic Approach: Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security (GEF ID 9607)
Implementing Agencies: UN Environment
Executing Agencies: EIB and UN Environment Mediterranena Action Plan (MAP)

	UN Environment Umoja Sponsored classes/Object of the Budget	BUDGET BY COMPONENTS				BUDGET BY YEAR					
		COMPONENT 1	COMPONENT 2	PROJECT MANAGEMENT	Total	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total
		US$	US$	US$	US$	US$	US$	US$	US$	US$	US$
FT30_010 PROJECT STAFF AND PERSONNEL											
1101	MedPCU - MedProgramme Coordinator (MAP)	-	-	70,000	**70,000**	10,000	15,000	15,000	20,000	10,000	**70,000**
1120	MedPCU - Programme Financial Assistant (MAP)	-	-	10,000	**10,000**	5,000	5,000	-	-	-	**10,000**
1121	MedPCU - Programme Administration Assistant (MAP)	-	-	10,000	**10,000**	5,000	5,000	-	-	-	**10,000**
1201	Regional Expert(s) to support (Component 2)	-	150,000	-	**150,000**	-	40,000	50,000	80,000	30,000	**200,000**
	Component Total	**-**	**150,000**	**90,000**	**240,000**	**20,000**	**65,000**	**65,000**	**100,000**	**40,000**	**290,000**
FT30_160 TRAVEL											
1601	Travels to support Component 2	-	95,000	-	**95,000**	-	25,000	25,000	20,000	-	**70,000**
1602	Travels to support IW:LEARN (part of the 1% allocation)	15,000	-		**15,000**	2,000	3,000	4,000	3,000	3,000	**15,000**
	Component Total	**15,000**	**95,000**	**-**	**110,000**	**2,000**	**28,000**	**29,000**	**23,000**	**3,000**	**85,000**
FT30_140 GRANT TO IP - (See footnote 1)											
2201	Preparation of tenders and adminstative tasks (EIB). [(1)]	340,000	-	148,000	**488,000**	97,600	97,600	97,600	97,600	97,600	**488,000**
2202	Preparatory studies and targeted surveys to support the investment in Egypt (EIB). [(1)]	965,467	-	-	**965,467**	-	-	193,093	482,733	289,640	**965,467**
2203	Capacity building to support the investment in Egypt (EIB). [(1)]	120,683	-	-	**120,683**	-	-	-	60,342	60,342	**120,683**
2204	Communication & Gender to support the investment in Egypt (EIB). [(1)]	120,683	-	-	**120,683**	-	-	36,205	36,205	48,273	**120,683**
2205	Preparatory studies and targeted surveys to support the investment in Lebanon (EIB). [(1)]	965,467	-	-	**965,467**	-	386,187	579,280	-	-	**965,467**
2206	Capacity building to support the investment in Lebanon (EIB). [(1)]	120,683	-	-	**120,683**	-	-	24,137	60,342	36,205	**120,683**
2207	Communication & Gender to support the investment in Lebanon (EIB). [(1)]	120,683	-	-	**120,683**	-	-	36,205	36,205	48,273	**120,683**
2208	Preparatory studies and targeted surveys to support the investment in Tunisia (EIB). [(1)]	965,467	-	-	**965,467**	482,733	482,733	-	-	-	**965,467**
2209	Capacity building to support the investment in Tunisia (EIB). [(1)]	120,683	-	-	**120,683**	24,137	60,342	36,205	-	-	**120,683**
2210	Communication & Gender to support the investment in Tunisia (EIB). [(1)]	120,683	-	-	**120,683**	36,205	36,205	48,273	-	-	**120,683**
2211	Travels to support the execution of the Project including part of the 1% allocation for IW:LEARN (EIB). [(1)]	23,250	-	-	**23,250**	5,000	5,000	5,000	5,000	3,250	**23,250**
2212	Organization of 1 Project Steering Committee and 1 Annual Stocktaking Meeting (EIB). [(1)]	45,000	-	-	**45,000**	20,000	-	25,000	-	-	**45,000**
2213	Preparation fo Lessons Learned note on the investemnet projects in Egypt, Lebanon and Tunisia (EIB). [(1)]	8,000	-	-	**8,000**		2,000	2,000	2,000	2,000	**8,000**
	Component Total	**4,036,750**	**-**	**148,000**	**4,184,750**	**665,675**	**1,070,067**	**1,082,998**	**780,427**	**585,583**	**4,184,750**
FT30_125 OPERATING AND OTHER DIRECT COSTS											
3301	Meetings oganized by the MedPCU (PSC, Annual Stocktake meetings, etc.)	142,000	-	-	**142,000**	15,000	30,000	30,000	30,000	37,000	**142,000**
3302	Meetings to support IW:LEARN (part of the 1% allocation)	8,250	-	-	**8,250**	-	-	2,500	2,500	3,250	**8,250**
3303	Meetings for technical support to Component 2	-	105,000	-	**105,000**	-	30,000	30,000	20,000	-	**80,000**
5201	Knowledge Management Strategy (KM management, KM platform, KM Tools and events), Publication, Translation, Dissemination and reporting costs	100,000	-	-	**100,000**	10,000	20,000	30,000	20,000	20,000	**100,000**
5301	Mid-Term Evaluation	50,000	-	-	**50,000**	-	-	50,000	-	-	**50,000**
5302	Terminal Evaluation	60,000	-	-	**60,000**	-	-	-	-	60,000	**60,000**
	Component Total	**360,250**	**105,000**	**-**	**465,250**	**25,000**	**80,000**	**142,500**	**72,500**	**120,250**	**440,250**
	TOTAL COSTS	**4,412,000**	**350,000**	**238,000**	**5,000,000**	**712,675**	**1,243,067**	**1,319,498**	**975,927**	**748,833**	**5,000,000**

TOTAL Component 1:	**4,412,000**
TOTAL Component 2:	**350,000**
TOTAL PMC:	**238,000**
TOTAL GEF Grant:	**5,000,000**

Footnote 1: Budget Lines 2201 to 2213 will be part of a Project Cooperation Agreement (PCA) between UN Environment and EIB.

Project No: GEF ID 9717
Project Name: Mediterranean Pollution Hot Spots Investment Project
Project Short Name: CP1.2 - MedProgramme
Programmatic Approach: Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security (GEF ID 9607)
Implementing Agencies: UN Environment
Executing Agencies: EIB and UN Environment Mediterranena Action Plan (MAP)

Sources of Co-financing /Project Component	Co-Financing per Component				Co-Financing per Year					
	COMPONENT 1	COMPONENT 2	SUPPORT TO PROJECT EXECUTION	Total	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total
	US$	US$	US$	US$	US$	US$	US$	US$	US$	US$
Cash co-financing										
EIB investments in Egypt, Lebanon and Tunisia	260,000,000	-	-	**260,000,000**	-	-	-	-	260,000,000	**260,000,000**
Other finance providers in Egypt, Lebanon and Tunisia	260,000,000	-	-	**260,000,000**	-	-	-	-	260,000,000	**260,000,000**
	-	-	-	-	-	-	-	-	-	-
	520,000,000	-	-	**520,000,000**	-	-	-	-	520,000,000	**520,000,000**
In kind co-financing										
Egypt	3,140,250	963,010	83,740	**4,187,000**	-	1,046,750	1,046,750	1,046,750	1,046,750	**4,187,000**
Lebanon	17,688,000	2,412,000	480,000	**20,580,000**	1,029,000	3,087,000	5,145,000	6,174,000	5,145,000	**20,580,000**
Tunisia	1,228,000	-	456,400	**1,684,400**	336,880	336,880	336,880	336,880	336,880	**1,684,400**
	22,056,250	3,375,010	1,020,140	**26,451,400**	1,365,880	4,470,630	6,528,630	7,557,630	6,528,630	**26,451,400**
TOTAL COSTS	**542,056,250**	**3,375,010**	**1,020,140**	**546,451,400**	**1,365,880**	**4,470,630**	**6,528,630**	**7,557,630**	**526,528,630**	**546,451,400**

Cash Co-Financing:	**520,000,000**
In kind Co-Financing:	**26,451,400**
TOTAL Co Fin:	**546,451,400**

ANNEX G: MONITORING AND EVALUATION PLAN AND BUDGET CP1.2

M&E activity	Purpose	Responsible	Budget (US$)	Time-frame
Inception workshop and Annual Stocktaking meetings	Full 5-year workplans, budgets, procurement plans etc. will be confirmed. Inception report to be finalized as key project document.	EA MedPCU EIB	20,000 for 1 Inception workshop or Annual Stocktaking meetings organized by EIB and 80,000 for 1 Inception workshop and/or 4 Annual Stocktaking meetings organized by the EA/MedPCU. (total 100,000)	Inception workshop within 8 months of project start. Annual Stocktaking meetings once a year starting from the 2nd year of execution.
Project Steering Committee	Annual review of project activities, outputs and intended outcomes; and detailed annual implementation and budget planning The first year's SC meeting is also the Inception Workshop where the	EA MedPCU EIB	25,000 for 1 PSC meeting. Organized by EIB 87,000 for 4 PSC meetings organized by the EA/MedPCU (total 112,000)	At least annually Additional component-specific coordination/ advisory meetings will also be held to support preparation of recommendations to PSC.
Travel for project monitoring	Monitoring and support to the technical activities under Components 1 and 2)	EIB, MED POL and EA and regional consultants	Included in component budgets	1-4 missions per year, depending on needs e.g. to unlock bottlenecks or support partners

Midterm Review	Reviews progress and draws lessons on execution issues and impact of project activities to midterm. Proposes corrective actions as required.	IA- Consultant	50,000	At the midterm of the project
Terminal report	Reviews effectiveness against implementation plan Highlights technical outputs Identifies lessons learned and likely design approaches for future projects, assesses likelihood of achieving design outcomes	EA	Included in component budgets	At the end of project implementation
Independent Terminal evaluation	Reviews effectiveness, efficiency and timeliness of project implementation, coordination mechanisms and outputs Identifies lessons learned and likely remedial actions for future projects Highlights technical achievements and assesses against prevailing benchmarks	UNEP Evaluation Office	60,000	At end of project implementation
Total indicative Monitoring &Evaluation cost			**322,000**	

ANNEX H: PROJECT IMPLEMENTATION ARRANGEMENTS

The institutional arrangements as described in the CEO Endorsement Request (section A.6) are further detailed in this annex, which provides information on the roles of the MedPCU and the Executing Partners.

MedProgramme Coordinating Unit (MedPCU):

The detailed list of services to be provided by the MedPCU are as follows:

Child Project 1.2 management services:

- Manage the flow of information from the field and produce periodic monitoring reports, namely quarterly financial expenditure reports; annual expenditure forecasts and procurement plans; half-yearly narrative reports of progress including the annual Project Implementation Review;
- Initiate, validate, sign and implement legal instruments with all bilateral partners including executing partners and countries where appropriate;
- Organize travel and payment of DSA for staff and consultants as needed;
- Coordinate and support the project activities of EIB (Component 1), and MED POL (Component 2);
- Organize the meetings of the Project Steering Committee (PSC) and serve as its Secretariat;
- Ensure the Project governance and oversight of the financial resources from the GEF investment and the co-financing delivered by the Project stakeholders.

Programmatic coordination:

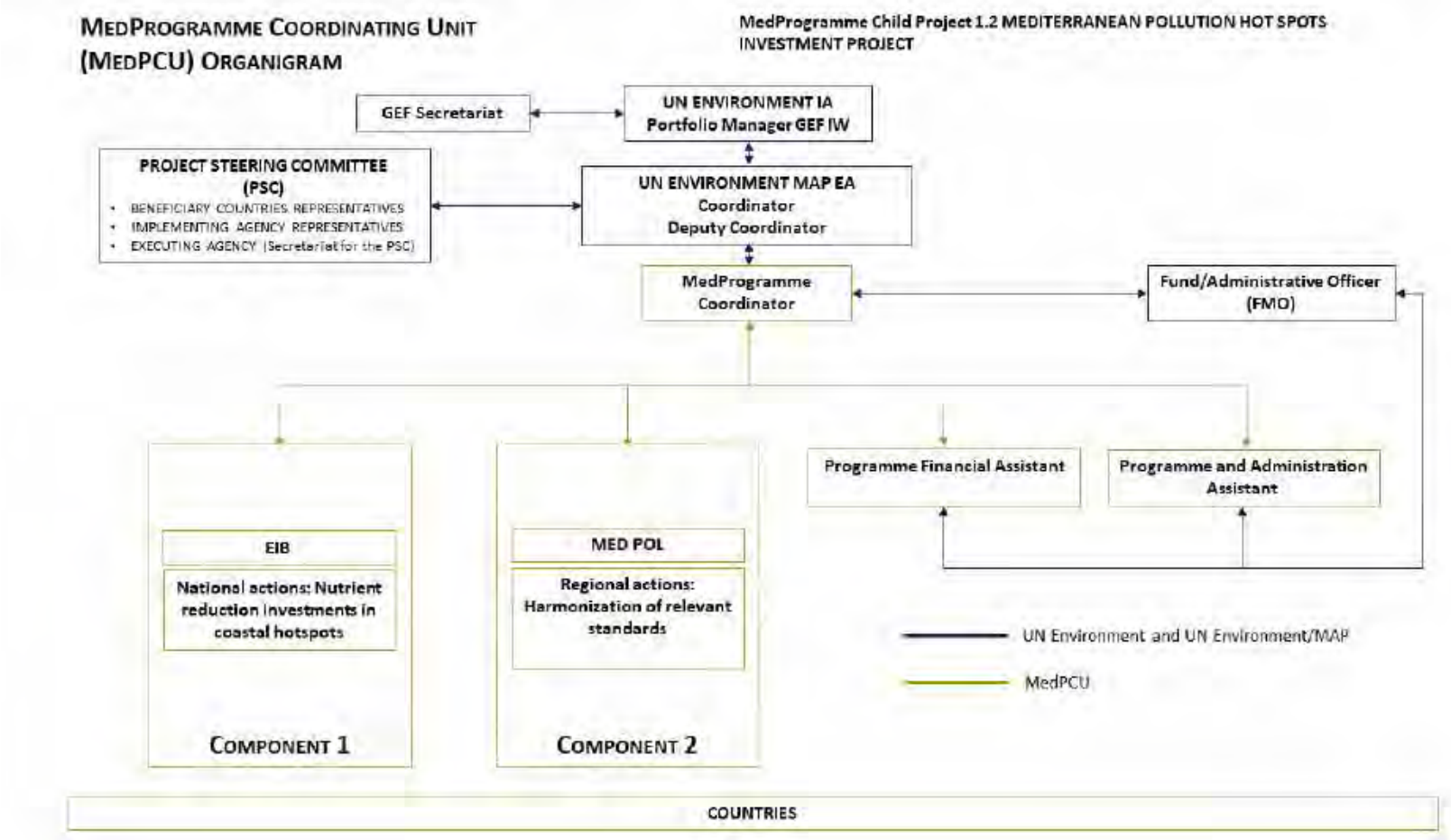
- Ensure that the execution of the entire MedProgramme is aligned and integrated with the priorities of the Contracting Parties to the Barcelona Convention, its 2016-2021 Mid-Term Strategy and biennial Programmes of Work;
- Ensure that the execution of the MedProgramme Gender and Knowledge Management Strategies is consistent across the entire Programme.
- Establish a mechanism to monitor and evaluate progress towards the objectives of the MedProgramme as a whole.

MedProgramme Visibility:

- Represent the MedProgramme in global events and initiatives.
- Ensure that the Programme Annual Stocktaking Meeting is organized in a coordinated manner to efficiently serve the countries, IA, EA and stakeholders;

- Share the Project achievements, products/outputs with the Project and MedProgramme's stakeholders;

The proposed staffing arrangements for the PCU are provide in figure 1:



It is anticipated that the MedPCU will be staffed with the following core positions:

- MedProgramme Coordinator (P4)

- Programme Officer CW (P3)
- Programme Financial Assistant (G5)
- Programme and Administration Assistant (G5)

In addition to this, the MedPCU operations will be supported during specific periods of the lifespan of the Child Project 1.2, by one Gender Specialist, one Knowledge Management Specialist and by a regional expert on International Waters, to be engaged through out-sourced contracts. The MedPCU will be established and hosted by UN Environment/MAP in Athens, Greece, following the successful model of the MedPartnership Project.

Executing Partners (EP): The EP will execute activities of the project that fall within their core areas of expertise.

The European Investment Bank (EIB), will be responsible for the technical execution of the entire Component 1 of Child Project 1.2 for the national investment projects in Egypt, Lebanon and Tunisia. Based on these criteria, the IA will establish a Project Cooperation Agreement (PCA) with the EIB. These arrangements will be established with full consideration of the applicable UN Environment and GEF principles and procedures, including cost-efficiency and effectiveness. EIB will report on the project implementation progress to the IA and to the MedProgramme Coordinating Unit (MedPCU) and will contribute to the PSC. The main roles of EIB are to:

- Provide technical advice and engage with the countries (Egypt, Lebanon and Tunisia) for all aspects of the execution of activities under the relevant Component 1 of the Child Project 1.2;
- Provide staff time and expertise in guiding their respective project activities;
- Supervise experts hired to ensure on time, high-quality deliverables;
- Manage the flow of financial resources earmarked for the implementation of activities;
- Review technical and substantive inputs by partners and countries on workplans etc.;
- Support the MedPCU and provide inputs for the preparation of the CP1.2 workplans, budgets, reports and other documents as relevant;
- Review the technical quality of the Child Project 1.2 outputs in coordination with the MedPCU;
- Assist the MedPCU in the preparation of the annual monitoring and reporting reports (APR/PIR);
- Assist the MedPCU in the preparation of the substantive inputs for the PSC.

MED POL (UN Environment MAP): will be responsible for the technical execution of the entire Component 2 of Child Project 1.2 (regional actions). MED POL will report on the project implementation progress to the IA and to the MedPCU and will contribute to the PSC. The main roles of MED POL are to.

- Provide technical advice and engage with the countries for all aspects of the execution of activities under the Components 2 of the Child Project 1.2;
- Provide staff time and expertise in guiding their respective project activities;
- Supervise experts hired to ensure on time, high-quality deliverables;
- Manage the flow of financial resources earmarked for the implementation of activities;
- Review technical and substantive inputs by partners and countries on workplans etc.;
- Prepare the Child Project 1.2 workplans, budgets, reports and other documents as relevant to Component 2 of the project;
- Assist the MedPCU in the preparation of the annual monitoring and reporting reports (APR/PIR);
- Assist the MedPCU in the preparation of the substantive inputs for the PSC.

In addition, the EIB and MED POL will also meet periodically with the MedPCU to: 1) discuss emerging issues and challenges in order to prepare timely contingency plans and measures; 2) update the MedPCU and the other Executing Partners of the MedProgramme on the progress made in the execution of their respective activities; 3) to prepare the working and information documents for the PSC and key events of the Project and the MedProgramme; and 5) to ensure effective coordination during the execution of the activities.

ANNEX I: KEY DELIVERABLES AND BENCHMARKS

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Component 1: National actions: Nutrient reduction investments in coastal hotspots			
Outcome 1: Investments in upgrading WWTPs and reusing of treated wastewater, and/or remediation of former industrial sites, and/or depollution of catchment area in Egypt, Lebanon and Tunisia are secured through strengthened capacity and increased country commitments.			
Output 1.1 to 1.5 refer to Investments in Egypt in the depollution of the waters in drains and canals in the Nile Delta and the Mediterranean Sea through investments in wastewater collection and treatment			
Output 1.1 Preparatory studies finalized.	1.1.1 Conduct preparatory studies to gather information necessary to evaluate the investment potential of the project(s) (including technical, environmental, socioeconomic, gender, financial and institutional capacity considerations).	• At least one preparatory study for each investment project considered for Egypt.	• Table of contents for the preparatory studies. • Terms of reference for consultants that will gather information and prepare the studies.
Output 1.2 Capacity-building activities to enable the national water and sanitation companies to better operate and maintain wastewater collection and treatment systems finalized.	1.2.1 Design and carry out training activities in line with the preparatory study (studies) and the needs assessments conducted for relevant national water and sanitation companies.	• Training module(s). • List(s) of participants and statistics on number of men and women trained.	• Training plan.

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Output 1.3 Targeted surveys and studies to enable informed decision-making and enhance the sustainability of the investments and their beneficial impacts, prepared.	1.3.1 Identify information needs and carry out additional surveys and/or studies to inform the project design and achieve the maximum possible depollution impact.	• Report(s) of the surveys and/or studies.	• Included in the ToRs for the TA consultant (if required).
Output 1.4 Public awareness raised on the benefits of proper wastewater disposal.	1.4.1 Design and execute communication and awareness-raising campaigns to build the public's knowledge about sanitation and the benefits of wastewater treatment.	• Communication tools created for print, broadcast and new media. • Statistics on numbers of people reached and engaged through campaigns.	• Included in the ToRs for the TA consultant.
Output 1.5 Gender equality mainstreamed in the wastewater sector in Egypt.	1.5.1 Actions to mainstream gender quality in activities for Outcome 1 (Egypt)	• Gender-themed inputs to surveys, preparatory studies, capacity building workshops, communication and awareness-raising campaigns.	• Included in the ToRs for the TA consultant.
<u>Outputs 1.6 to 1.10 refer to investments in Lebanon in wastewater collection systems in coastal hotspots.</u>			
Output 1.6 Preparatory studies finalized.	1.6.1 Conduct preparatory studies to gather information necessary to evaluate the investment potential of the projects (including technical, environmental, socioeconomic, gender, financial and institutional capacity considerations).	• At least one preparatory study for each investment project considered for Lebanon.	• Table of contents of the preparatory study. • Terms of reference for consultants that will carry out the surveys and/or studies.

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Output 1.7 Responsibilities defined, and operation procedures developed and submitted for adoption by relevant authorities.	1.7.1 Organize workshops to identify administrative and technical gaps and to define responsibilities in the wastewater sector, for the development of operational procedures addressing technical, administrative and monitoring aspects in the waste	• Reports of workshops, including documentation of gaps identified and agreed responsibilities for the wastewater sector. • Operational procedures. • List(s) of workshop participants and statistics on number of men and women trained.	• Included in the ToRs for the TA consultant.
Output 1.8 Monitoring and evaluation capacity of MOEW and WEs improved.	1.8.1 Design and implement capacity building activities on monitoring and evaluation for MOEW and WEs.	• Training module(s). • List(s) of participants of capacity building activities and statistics on number of men and women trained.	• Training plan. •
Output 1.9 Surveys and studies to enable informed decision-making and enhance the sustainability of the investment and of its beneficial impacts, prepared.	1.9.1 Design and conduct surveys and studies to gather information to enable informed decision-making, including about the assess willingness of households to pay for wastewater services; the source of pollution in the target catchment areas; and the reuse of treated wastewater.	• Reports of the surveys. • Results of the studies.	• Included in the ToRs for the TA consultant (if required).
Output 1.10 Gender equality mainstreamed in the wastewater sector in Lebanon.	1.10.1 Actions to mainstream gender quality in activities for Outcome 1 (Lebanon)	• Gender-themed inputs to surveys, preparatory studies, capacity building workshops/trainings, and any communication and awareness-raising activities.	• Included in the ToRs for the TA consultant.
Outputs 1.11 to 1.13 refer to investments for the upgrading and/or extension of 10 WWTPs to improve the quality of Tunisian surface water, groundwater, and coastal waters.			

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Output 1.11 Preparatory studies, finalized.	1.11.1 Conduct preparatory studies to gather information necessary to evaluate the investment potential of the projects (including technical, environmental, socioeconomic, gender, financial and institutional capacity considerations).	• At least one preparatory study for each investment project considered for Tunisia.	• Table of contents of the preparatory study. • Terms of reference for consultants that will carry out the surveys and/or studies.
Output 1.12 Capacity enhancement of ONAS to operate and maintain wastewater systems completed.	1.12.1 Design and implementation of capacity building programs for technical and managerial staff of WWTPs, and of interministerial dialogues on financing of wastewater services.	• Training module(s). • List(s) of participants of capacity building activities and statistics on number of men and women trained. • Reports of the interministerial dialogues.	• Training plan.
Output 1.13 Wastewater Master Plans for the targeted regions are updated.	1.13.1 Review and update the Wastewater Master Plans for the governorates of El Kef, Beja, Kasserine, Tozeur, Kébili and Tataouine.	• Six updated Wastewater Master Plans. • Gender analyses for the six Wastewater Master Plans.	• Included in the ToRs for the TA consultant (if required).

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Component 2: Regional actions: Harmonization of relevant standards			
Outcome 2: Effectiveness of environmental management by the Contracting Parties to the Barcelona Convention increased through the development of common environmental standards on desalination, aquaculture, and wastewater and sludge management.			

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Output 2.1: Regional standards on wastewater management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.	2.1.1 Development of regional standards on wastewater management and regional and national measures for their implementation.	• Regional standards on wastewater management. • Regional measures to implement standards. • National measures to implement standards.	• Terms of reference for consultant providing technical assistance for design of regional standards and implementation measures. • Terms of reference for a gender consultant to conduct gender consultations with stakeholders, and contribute to the development of gender-responsive regional standards.
Output 2.2: Regional standards on sludge management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.	2.2.1 Development of regional standards on sludge management and regional and national measures for their implementation.	• Regional standards on sludge management. • Regional measures to implement standards. • National measures to implement standards.	• Terms of reference for consultant providing technical assistance for design of regional standards and implementation measures. • Terms of reference for a gender consultant to conduct gender consultations with stakeholders, and contribute to the development of gender-responsive regional standards.

Component/Outcome/Outputs	Activities	Deliverables	Benchmarks
Output 2.3: Regional standards on desalination; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.	2.3.1 Development of regional standards on desalination and regional and national measures for their implementation.	• Regional standards on desalination. • Regional measures to implement standards. • National measures to implement standards.	• Terms of reference for consultant providing technical assistance for design of regional standards and implementation measures. • Terms of reference for a gender consultant to conduct gender consultations with stakeholders, and contribute to the development of gender-responsive regional standards.
Output 2.4: Regional standards for reducing pollution from aquaculture; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.	2.4.1 Development of regional standards on desalination and regional and national measures for their implementation.	• Regional standards for reducing pollution from aquaculture. • Regional measures to implement standards. • National measures to implement standards.	• Terms of reference for consultant providing technical assistance for design of regional standards and implementation measures. • Terms of reference for a gender consultant to conduct gender consultations with stakeholders, and contribute to the development of gender-responsive regional standards.

ANNEX J OFP ENDORSEMENT LETTER MEDPROGRAMME

REPUBLIC OF ALBANIA
MINISTRY OF ENVIRONMENT
Adress: Rr.Norbert Jokl, Tirana, Albania, www.moe.gov.al

June 23, 2016

To: Ms. Brennan Van Dyke, Executive Coordinator
United Nation Environment Programme
Gigiri, P.O. Box 30552-00100 Nairobi, Kenya

Subject: Endorsement for Mediterranean Sea Program (Med Programme)

In my capacity as GEF Operational Focal Point for Albania, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nation Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing partners (UNIDO, IUCN, UNESCO, EIB and WWF MedPo, etc).

The total financing[1] being requested for the child projects under this Program is US$ 47,390,000 inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s). The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	20,500,000	700,000	1,845,000	23,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemical and Waste	POPS and Mercury	11,750,000	300,000	1,057,500	13,107,500
GEFTF	EBRD	Chemical and Waste	POPS	3,750,000		337,500	4,087,500

[1] "Total financing" refers to funding from the GEFTF, LDCF, and/or SCCF.

GEFTF	UNEP	Biodiversity (Lybia)		1,376,147		123,853	1,500,000
Total Financing				42,376,147	1,200,000	3,813,853	47,390,000

Sincerely,

Mr. Pellumb Abeshi

General Director of Environment,
GEF OFP, Albania

Copy to: Convention Focal Point for Stockholm (PoPs)

Convention Focal Point for Minamata

الجمهوريـــــة الجزائريـــــة الديمقراطيـــــة الشعبيـــــة

PEOPLE's DEMOCRATIC REPUBLIC OF ALGERIA

وزارة البيئـــــة والطاقات المتجددة

Ministry of Environment and Renewable Energies

REF: 09/0FP-GEF-ALG/MEER/2017 Algiers, November, 16th 2017

To: Ms.Kelly West, Executive Coordinator
United Nation Environment Programme
Gigiri, P.O. Box 30552-00100 Nairobi, Kenya.

Subject: Endorsement for Mediterranean Sea Program (Med Programme).

In my capacity as GEF Operational Focal Point for ALGERIA, I confirm that the above Program proposal is in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nation Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing partner (UNIDO, IUCN, UNESCO, EIB and WWF MedPo, etc).

The total financing' being requested for the child projects under this Program is **US$ 47,390,000** inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown reque ted for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s). The below table also includes US$ **1,500,000** of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	20,500,000	700,000	1,845,000	23,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemical and Waste	POPS and Mercury	11,750,000	300,000	1,057,500	13,107,500
GEFTF	EBRD	Chemical and Waste	POPS	3,750,000		337,500	4,087,500
GEFTF	UNEP	Biodiversity (Lybia)		1,376,147		123,853	1,500,000
Total Financing				42,376,147	1,200,000	3,813,853	**47,390,000**

Sincerely,
Mr Karim BABA
GEF Operational Focal Point

Copy to: General Secretariat *(Ministry of Environment and Renewable Energies).*
GEF Political Focal Point *(Ministry of Foreign Affairs).*
Stockholm (POPs) Convention Focal Point.

BOSNA I HERCEGOVINA
MINISTARSTVO VANJSKE
TRGOVINE I EKONOMSKIH ODNOSA

БОСНА И ХЕРЦЕГОВИНА
МИНИСТАРСТВО СПОЉНЕ ТРГОВИНЕ
И ЕКОНОМСКИХ ОДНОСА

BOSNIA AND HERZEGOVINA
MINISTRY OF FOREIGN TRADE AND
ECONOMIC RELATIONS

No: 06-3-50-1976- 3/16
Sarajevo, 22 july 2016

To: Ms- Brenan Van Dyke, Executive coordinator
United Nations Environment Programme
Gigiri, P.O Box 30552 – 00100 Nairobi, Kenya

Subject: Endorsement for Mediteraanean Sea Programme (MedProgramme)

In my capacity as GEF Political Focal Point for Bosnia and Herzegovina, I confirm that the above Program proposal is in accordance with my government's national priorities and our commitment to the relevant global environmental conventions.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing partners (UNIDO, IUCN, UNESCO, EIB and WWF MedPO, etc.).

The MedProgramme follows the successful implementation of the "MedPartnership" and "ClimVar & ICZM" GEF funded projects in Bosnia and Herzegovina. Among other successful activities, the development of a PCB inventory and disposal of PCB in Bosnia and Herzegovina, has been one of the most relevant achievements of the above mentioned projects during the period 2009 and 2015.

The total financing[1] being requested for the child projects under this Program is US$ 47,390,000, inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program.

Kindly note that by endorsing the MedProgramme Bosnia and Herzegovina is not committing co-financing to the Programme at this stage.

Sincerely,

MINISTER
Mirko Šarović

Copy to: Convention Focal Point for Stockholm (POPs)

[1] "Total financing" refers to funding from the GEFTF, LDCF, and/or SCCF.

Мусала 9, 71 000 Сарајево, тел: +387 33 220 093 факс: +387 33 33 220 091
Musala 9, 71 000 Sarajevo, tel: + 387 33 33 220 093 faks: +387 33 33 220 091
www.mvteo.gov.ba

Arab Republic of Egypt
Cabinet of Ministers
Ministry of Environment
Egyptian Environmental Affairs Agency

جمهورية مصر العربية
رئاسة مجلس الوزراء
وزارة البيئة
جهاز شئون البيئة

[illegible]

To: Mr. [illegible]
Fund Nature Development Programme
[illegible]

Subject: Endorsement for Multilateral Fund Programme/MoP Approved

[illegible]

Time Fund	Agency	Fund Area	Programming of Fund	Amount in £ Mn			
				[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]
Total Financing				[illegible]	[illegible]	[illegible]	[illegible]

Approved
[illegible]
Eng. [illegible]
[illegible]
[illegible]

[illegible]

[illegible]
[illegible]

GEF Unit
<gefunitegypt@gmail.com
>

07/06/2016 02:59 PM

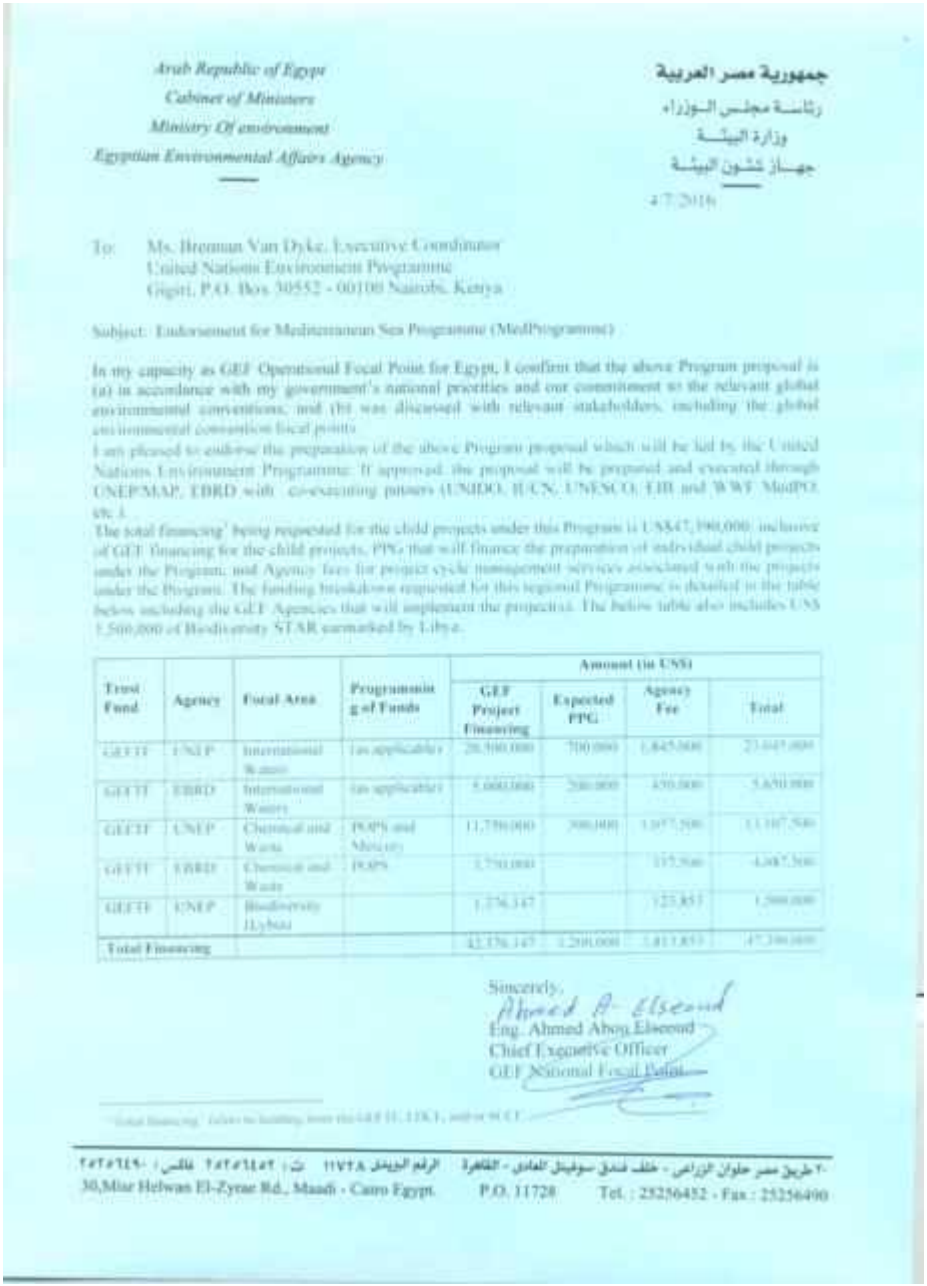
To Shelley.Farrington@unepmap.gr, hoda.elturk@unepmap.gr, Lorenzo.Galbiati@unepmap.gr,
cc "ceo.eeaa@eeaa.cloud.gov.eg" <ceo.eeaa@eeaa.cloud.gov.eg>
bcc

Subject MedProgramme

Dear All,

Hope this email find you well, As agreed with Eng. Abou Elseoud, kindly find below the signed endorsement letter for the MedProgramme.

Best regards
Hoda
Gef unit director at EEAA



Arab Republic of Egypt
Cabinet of Ministers
Ministry Of environment
Egyptian Environmental Affairs Agency

جمهورية مصر العربية
رئاسة مجلس الوزراء
وزارة البيئة
جهاز شئون البيئة

4/7/2016

To: Ms. Brennan Van Dyke, Executive Coordinator
United Nations Environment Programme
Gigiri, P.O. Box 30552 - 00100 Nairobi, Kenya

Subject: Endorsement for Mediterranean Sea Programme (MedProgramme)

In my capacity as GEF Operational Focal Point for Egypt, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions, and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing partners (UNIDO, IUCN, UNESCO, EIB and WWF MedPO, 6%).

The total financing' being requested for the child projects under this Program is US$47,390,000, inclusive of GEF financing for the child projects, PPGs that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below, including the GEF Agencies that will implement the projects. The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	28,500,000	700,000	1,845,000	31,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemicals and Waste	POPS and Mercury	11,750,000	300,000	1,097,500	13,147,500
GEFTF	EBRD	Chemicals and Waste	POPS	3,750,000		337,500	4,087,500
GEFTF	UNEP	Biodiversity (Libya)		1,236,147		123,853	1,360,000
Total Financing				42,236,147	1,200,000	3,813,853	47,390,000

Sincerely,
Ahmed A- Elseoud
Eng. Ahmed Abou Elseoud
Chief Executive Officer
GEF National Focal Point

٣٠ طريق مصر حلوان الزراعى - خلف فندق سوفيتل للعاصى - القاهرة
الرقم البريدى ١١٧٢٨ ت: ٢٥٢٥٦٤٥٢ فاكس: ٢٥٢٥٦٤٩٠
30,Misr Helwan El-Zyraa Rd., Maadi - Cairo Egypt. P.O. 11728 Tel. : 25256452 - Fax : 25256490

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GEF Unit / Egypt
Mobile: +2- 0122- 3352319
Fax: +2- 02 -25256454

Pl. Consider the Environment before printing this email

REPUBLIC OF LEBANON
MINISTRY OF ENVIRONMENT

Beirut, 11-07-2016
Our Ref: 3513/B

THE MINISTER

Ms. Brennan Van Dyke
Executive Coordinator
United Nations Environment Programme
Gigiri, P.O. Box 30552 - 00100
Nairobi, Kenya

Dear Ms. Van Dyke,

Subject: Endorsement for Mediterranean Sea Programme (MedProgramme)

In my capacity as GEF Operational Focal Point for Lebanon, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.
I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD and co-executing partners (UNIDO, IUCN, UNESCO, EIB and WWF MedPO, etc.).
The total financing being requested for the child projects under this Program is US$47,390,000, inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s). The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	20,500,000	700,000	1,845,000	23,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemical and Waste	POPS and Mercury	11,750,000	300,000	1,057,500	13,107,500
GEFTF	EBRD	Chemical and Waste	POPS	3,750,000		337,500	4,087,500
GEFTF	UNEP	Biodiversity (Lybia)		1,376,147		123,853	1,500,000
Total Financing				42,376,147	1,200,000	3,813,853	47,390,000

Sincerely yours,

Mohamad Al Mashnouk
Minister of Environment

Cc: - Registrar
- Convention Focal Point for Stockholm (POPs),
- Convention Focal Point for Minamata

AA-F-16-V1-1/1

libyan interim government
Government of Libya
Environmental General Authority

الحكومة الليبية المؤقتة
رئاسة مجلس الوزراء
الهيئة العامة للبيئة

التاريخ: 28.06.2016

الموافق:

الرقم الإشاري:

To: Ms. Brennan Van Dyke, Executive Coordinator
United Nations Environment Programme
Gigiri, P.O. Box 30552 - 00100 Nairobi, Kenya

Subject: Endorsement for Mediterranean Sea Programme (MedProgramme)

In my capacity as GEF Operational Focal Point for Libya, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing patners (UNIDO, IUCN, UNESCO, EIB and WWF MedPO, etc.).

The total financing[1] being requested for the child projects under this Program is US$47,390,000, inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s).
The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	20,500,000	700,000	1,845,000	23,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemical and Waste	POPS and Mercury	11,750,000	300,000	1,057,500	13,107,500
GEFTF	EBRD	Chemical and Waste	POPS	3,750,000		337,500	4,087,500
GEFTF	UNEP	Biodiversity (Libya)		1,376,147		123,853	1,500,000
Total Financing				42,376,147	1,200,000	3,813,853	47,390,000

I consent to the utilization of Libya's allocations in GEF-6 as defined in the System for Transparent Allocation of Resources (STAR). For projects outside the STAR, I am endorsing funding from the focal area envelopes.

Sincerely,

Dr. Mustafa Soliman
Operational and Political Focal Point

الهيئة العامة للبيئة
نقطة الاتصال
مرفق البيئة العالمي

Copy to: Convention Focal Point for Stockholm (POPs)
Convention Focal Point for Minamata

[1] "Total financing" refers to funding from the GEFTF, LDCF, and/or SCCF.

092.248.8790 egalibya2015@gmail.com العنوان / شحات – ليبيا

MONTENEGRO

MINISTRY OF SUSTAINABLE DEVELOPMENT
AND TOURISM

Montenegro
A DECADE
OF INDEPENDENCE
MONTENEGRO
2016

May Montenegro live forever!

Podgorica, June 27th 2016

Ref/No: MM-66/33

To: Ms. Brennan Van Dyke, Executive Coordinator
United Nations Environment Programme
Gigiri, P.O. Box 30552- 00100 Nairobi, Kenya

Subject: Endorsement for Mediterranean Sea Programme (MedProgramme)

In my capacity as GEF Operational Focal Point for Montenegro, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing partners (UNIDO, IUCN, UNESCO, EIB and WWF MedPO, etc).

The total financing[1] being requested for the child projects under this Program is US$ 47,390,000, inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s). The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

[1] "Total financing" refers to funding from the GEFTF, LDCF, and/or SCCF.

IV proleterske brigade broj 19, 81000 Podgorica
Tel: (+382) 20 446 362; (+382) 20 446 225; Fax: (+382) 20 446 215
Web: www.mrt.gov.me

MONTENEGRO

MINISTRY OF SUSTAINABLE DEVELOPMENT AND TOURISM

Montenegro
A DECADE OF INDEPENDENCE
MONTENEGRO 2016
May Montenegro live forever

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	20,500,000	700,000	1,845,000	23,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemical and Waste	POPS and Mercury	11,750,000	300,000	1,057,500	13,107,500
GEFTF	EBRD	Chemical and Waste	POPS	3,750,000		337,500	4,087,500
GEFTF	UNEP	Biodiversity (Lybia)		1,376,147		123,853	1,500,000
Total Financing				42,376,147	1,200,000	3,813,853	47,390,000

Sincerely,

Ms. Marija Vukcevic
Operational Focal Point
Director General for EU Integration and International Cooperation
Ministry of Sustainable Development and Tourism

Copy to: Convention Focal Point for Stockholm (POPs)
Convention Focal Point for Minamata

IV proleterske brigade broj 19, 81000 Podgorica
Tel: (+382) 20 446 362; (+382) 20 446 225; Fax: (+382) 20 446 215
Web: www.mrt.gov.me

المملكة المغربية
ⵜⴰⴳⵍⴷⵉⵜ ⵏ ⵍⵎⵖⵔⵉⴱ
Royaume du Maroc

Ministère délégué auprès du Ministre de l'Energie,
des Mines, de l'Eau et de l'Environnement,
chargé de l'Environnement

الوزارة المنتدبة لدى وزير الطاقة والمعادن
والماء والبيئة، المكلفة بالبيئة
ⵜⴰⵎⴰⵡⴰⵙⵜ ⵜⴰⵎⴰⵡⴰⵙⵜ ⵖⵓ ⵓⵎⴰⵡⴰⵙ ⵏ ⵜⵣⵔⴼⵜ ⴰ ⵜⵣⵔⵢⴰⵣ
ⴰ ⵍⵎⴰⴹⴰ ⴰ ⵜⵍⵍⴰⵙ ⵜⵜⵓⵎⵔⵔⴰⵙ ⴷ ⵜⵍⵍⴰⵙ
م.ش.ب.ت

DPCC
DP/GEF

24 JUIN 2016

To: **Ms Brennan Van Duke,**
Executive Coordinator,
United Nations Environment Programme
Gigiri,P.O.Box 30552-00100 Nairobi, Kenya

Subject: Endorsement for Mediterranean Sea Programme (MedProgramme)

In my capacity as GEF Operational Focal Point for Morocco, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing patners (UNIDO, IUCN, UNESCO, EIB and WWF MedPo, etc.)

The total financing from the GEFTF, LDCF, and/or SCCF being requested for the child projects under this Program is US$ 47 390 000, inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s). The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	Expected PPG	Agency Fee	Total
GEFTF	UNEP	International Waters	(as applicable)	20 500 000	700 000	1 845 000	23 045 000
GEFTF	EBRD	International Waters	(as applicable)	5 000 000	200 000	450 000	5 650 000
GEFTF	UNEP	Chemical and Waste	POPs and Mercury	11 750 000	300 000	1 057 500	13 107 500
GEFTF	EBRD	Chemical and Waste	POPS	3 750 000		337 500	4 087 500
GEFTF	UNEP	Biodiversity (Lybia)		1 376 147		123 853	1 500 000
Total Financing				42 376 147	1 200 000	3 813 853	47 390 000

Sincerely,

GEF Operational Focal Point

Le Directeur du Partenariat de la
Communication et de la Coopération

Mohamed REMTAHIA

Copy to: Convention Focal point for Stockholm (POPs)
Convention Focal point for Minamata

REPUBLIC OF TUNISIA

—o—

MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

—o—

Tunis, 27/06/2016

To: Ms. Brennan Van Dyke, Executive Coordinator
United Nations Environment Programme
Gigiri, P.O. Box 30522 – 00100 Nairobi, Kenya

Subject: Endorsement for Mediterranean Sea Programme (MedProgramme)

In my capacity as GEF Operational Focal Point for Tunisia, I confirm that the above Program proposal is (a) in accordance with my government's national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Program proposal which will be led by the United Nations Environment Programme. If approved, the proposal will be prepared and executed through UNEP/MAP, EBRD with co-executing partners (UNIDO, IUCN, UNESCO, EIB and WWF MedPO, etc.).

The total financing[1] being requested for the child projects under this Program is US$47,390,000, inclusive of GEF financing for the child projects, PPG that will finance the preparation of individual child projects under the Program, and Agency fees for project cycle management services associated with the projects under the Program. The funding breakdown requested for this regional Programme is detailed in the table below including the GEF Agencies that will implement the project(s). The below table also includes US$ 1,500,000 of Biodiversity STAR earmarked by Libya.

Trust Fund	Agency	Focal Area	Programming of Funds	Amount (in US$)			
				GEF Project Financing	**Expected PPG**	**Agency Fee**	**Total**
GEFTF	UNEP	International Waters	(as applicable)	20,500,000	700,000	1,845,000	23,045,000
GEFTF	EBRD	International Waters	(as applicable)	5,000,000	200,000	450,000	5,650,000
GEFTF	UNEP	Chemical and Waste	POPS and Mercury	11,750,000	300,000	1,057,500	13,107,500
GEFTF	EBRD	Chemical and Waste	POPS	3,750,000		337,500	4,087,500
GEFTF	UNEP	Biodiversity (Lybia)		1,376,147		123,853	1,500,000
Total Financing				42,376,147	1,200,000	3,813,853	47,390,000

Sincerely,
Sabria Bnouni

GEF Operational Focal Point

[1] "Total financing" refers to funding from the GEFTF, LDCF, and/or SCCF.

Copy to : Convention Focal Poin for Stockholm (POPs)
Convention Focal Point for Minamata

ANNEX K1 CO-FINANCING COMMITMENT LETTERS FROM PROJECT PARTNERS CP1.2

Европейска инвестиционна банка
Evropská investiční banka
Den Europæiske Investeringsbank
Europäische Investitionsbank
Euroopa Investeerimispank
Ευρωπαϊκή Τράπεζα Επενδύσεων
European Investment Bank
Banco Europeo de Inversiones
Banque européenne d'investissement
An Banc Eorpach Infheistíochta
Europska investicijska banka
Banca europea per gli investimenti
Eiropas Investīciju banka
Europos investicijų bankas
Európai Beruházási Bank
Bank Ewropew tal-Investiment
Europese Investeringsbank
Europejski Bank Inwestycyjny
Banco Europeu de Investimento
Banca Europeană de Investiții
Európska investičná banka
Evropska investicijska banka
Euroopan investointipankki
Europeiska investeringsbanken

By DHL

Global Environment Facility,
1899 Pennsylvania Ave NW
Washington DC, 20006
United States of America

For the attention of Naoko Ishii, CEO and Chairperson

Luxembourg, 6 February 2019

SG/AS/Strat&Coord/2019-227/MP/rms

EIB Corporate Use

Subject: Co Financing letter for the Child Project 1.2: Mediterranean Pollution Hot Spots Investment Project' - (GEF ID 9717) – part of the GEF Programmatic Approach Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security (GEF ID 9607)

Dear Madam,

This letter refers to the Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security (GEF ID 9607) and its Child Project 1.2 Mediterranean Pollution Hot Spots Investment Project – GEF ID 9717 (CP1.2 hereinafter).

Within the framework of the MedProgramme, CP1.2 is funded by the GEF International Waters Focal Area with a grant of USD 5 million. CP 1.2 aims to facilitate country commitment to major innovative investments in Mediterranean coastal hot spots at risk of eutrophication, groundwater over-exploitation and loss of coastal habitats that have been included in the Mediterranean National Action Plans (NAPs) for the implementation of the Strategic Action Programme (SAP) MED on land based pollution reduction.

The European Investment Bank ("the EIB") is a European Union Body with a mission to provide long term finance for sustainable investment projects that contribute to EU policy objectives. In the Mediterranean Region the EIB also provides technical assistance services, which recognises the need for further significant investment in water and sanitation, solid waste disposal and treatment and pollution abatement in countries in the region. The EIB has a significant record of financing water, wastewater and depollution investment in the Southern Mediterranean, and financed more than EUR 390 million of investment in the water sector alone between 2013 and 2017.

98-100, boulevard Konrad Adenauer L-2950 Luxembourg +352 4379-1 +352 437704 info@eib.org www.eib.org

This commitment to improving lives in the region and safeguarding the shared resources of the Mediterranean Basin was reflected in the creation in 2009 of the Mediterranean Hot Spots Investment Programme ("MeHSIP"), that has been managed by the EIB with funding from and in partnership with the European Union. The EIB has since worked closely through MeHSIP with a range of other institutions, including UN Environment/MAP and the EU Horizon 2020 programme, to identify and accelerate preparation and implementation of investments in the Southern Mediterranean that will contribute to the depollution of the Mediterranean basin.

In this context and following the approval of the MedProgramme by the GEF Council in October 2016, the EIB has identified a number of potential investment projects in Egypt, Lebanon and Tunisia that qualify as high priorities in the framework of the National Action Plans, are supported by the national governments of their respective countries and are coherent with EU policy in the region.

In the context of the CP 1.2, the EIB would help designing, procuring and overseeing the technical expertise indispensable to bring the selected investments to maturity, thus facilitating the decision of the countries and of the EIB to invest in them, as well as their implementation. Detailed descriptions of the investment projects in Egypt, Lebanon and Tunisia to be prepared and an outline of the technical assitance to be provided, are to be found in the Project Document of CP1.2.

The cost of the investment projects in Egypt, Lebanon and Tunisia to be prepared with the direct support of CP1.2 is currently estimated in the range of USD 520 million (approximately EUR 450 million at current exchange rates), depending on the results of the technical assistance programme.

Based on the information currently available, and subject to the outcomes of the CP1.2 execution, the EIB would expect the investment projects to be eligible for EIB project financing according to EIB rules and regulations, including that EIB financing cannot normally exceed 50% of the eligible project cost.

The EIB participation in co-financing any resultant investment project would be subject to, *inter alia*:

(i) the successful preparation of a sound investment project;
(ii) country willingness to invest in the project;
(iii) receipt of a request for financing from the investment project promoter;
(iv) completion of satisfactory due diligence by the EIB in line with its rules and procedures;
(v) the receipt of all necessary EIB internal and credit approvals,
(vi) approval of the financing related to the project by the EIB Management Committee and Board of Directors;
(vii) successful negotiation of satisfactory finance documentation and security structure; and
(viii) continuation of EIB operations in the target countries and availability of suitable resources for lending to projects in those countries

We hope that we have clarified the EIB willingness to consider co-financing of the investments resulting as feasible from the work to be developed by CP1.2. However, please note that this letter is not intended to create any binding obligation, nor must it be relied upon as so doing, to fund any or all of the investment projects mentioned in the Project Document of the CP1.2.

We look forward to the execution of the CP1.2 and to continue our cooperation with the GEF, UN Environment and the Barcelona Convention for the preparation of these important investment projects.

Yours sincerely,

EUROPEAN INVESTMENT BANK

Jean-Luc Revéreault
Head of Division
Strategy and Coordination
Advisory Services

Thomas Van Gilst
Head of Division
Water Security and Resilience
Projects Directorate

Encl. 1: Annexe A - Project details

Annexe A: Project details

1 The EIB Technical Assistance Project

The Technical Assistance project ("TA project") to be implemented by EIB under the PCA shall consist of TA sub projects that are to support the identification, selection and design of future Investment projects in the water and wastewater treatment sectors in Mediterranean coastal areas at risk of groundwater over-exploitation, loss of coastal habitats and eutrophication. The future Investment projects that will be made possible by the TA project are expected reduce discharge of nutrients and other pollutants into the Mediterranean and in addition to supply an additional constant source of water that can be used in agriculture and/or forestry and thus reducing the pressure on the already scarce water sources.

The European Investment Bank ('EIB') will be the Executing Agency for the TA project. EIB expects to implement the TA project primarily by procuring and managing external service providers that will undertake and deliver technical assistance ("TA") in defined TA sub-projects according to technical specifications prepared by EIB.

The budget for the TA project to be deployed by EIB is USD 4.65 million comprising TA costs of USD 4.4 million and a contribution to EIB TA project management costs of USD 0.25 million, as mentioned in Article 11 of the PCA. It is expected that this budget will support three (or more) separately specified and procured TA sub-projects. At least one sub-project will prepare investments in each of Egypt, Lebanon and Tunisia.

The TA project is expected to be completed within 60 months starting from the TA project effectiveness date as per the provisions of Article 5 of the PCA.

Any unspent funds of the TA budget may be used, following UNEP agreement as per the provisions of the PCA, either to cover the costs of any unforeseen elements of the selected TA Sub-Projects or be allocated between the three countries to prepare further relevant investments.

The TA project has the overall objective of identifying viable investment opportunities in the water and wastewater sectors. It will scope, manage and complete preparatory studies (but not exclusively) of investments that will improve the capacity of the relevant utilities to treat water and wastewater in the relevant areas. TA sub-projects will aim to prepare investment projects to a level where they can be appraised for financing by EIB or other International Finance Institutions. Where deemed appropriate by EIB, the TA sub-projects will provide capacity-building TA such as training or Institutional development support, to improve the capacity of the relevant water and wastewater utilities to operate and maintain their investments.

It is anticipated that the TA project will permit an overall expected capital investment of at least USD 520 million in developing infrastructure for the treatment of water and wastewater in the areas that benefitted from TA support.

2 TA Sub-Projects

The TA project will comprise TA sub- projects supporting investment projects. Such investment projects must:

- Be in line with EIB objectives, coherent with the relevant National Action Plan (NAP) as updated in 2015 and with the wider depollution needs of the Mediterranean Basin;
- Have Government support for implementation;
- Be sufficiently mature as to be capable of being financed and implemented quickly with appropriate TA support;
- Following appropriate preparation, be able to meet the requirements of EIB and/or similar

International Financial Institutions for preparation (eg environmental and social evaluations, procurement approach).

Egypt TA sub-project

The TA sub-project in Egypt will address the continued discharge of untreated wastewater into the environment by contributing to improve the current poor coverage of wastewater treatment facilities. This will be achieved by supporting the planning, design and implementation of an effective wastewater management system in one or more of the drainage systems in the Nile Delta, to be selected in close cooperation with the Egyptian authorities.

The TA sub-project will identify, scope and manage TA to develop investment projects required to reduce levels of pollution at Lake Manzala and/or Lake Maryut in the Nile Delta, both of which drain into the Mediterranean. Both these coastal lagoons were identified as pollution 'hotspots' in the 2015 update of the Egyptian National Action Plan (NAP), and require action to rehabilitate and improve agricultural 'drains' feeding into them. Depollution and rehabilitation of the 173 km Bahr Al Baqar Drain would significantly improve conditions in Lake Manzala, while Lake Maryut would benefit from depollution of Al Omoum Drain. As both TA and investment funds are limited, the priority project to be prepared will be decided in close cooperation with the Egyptian Government. TA would comprise development of detailed Terms of Reference for a service provider that will finalise the design of the selected scheme and then support preparation of tender documentation and wider project implementation.

Lebanon Sub-Project

The TA sub-project in Lebanon will primarily address the lack of wastewater networks connected to treatment plants, where many areas still require major investments to become connected.

In 2016, the Lebanese Government approved a EUR 660 million (USD 733 million) investment programme in wastewater and solid waste sectors over 7 years to address water pollution in the Litani River Basin. In 2018, the Government launched a EUR 2 billion (USD 2.4 billion) Capital Investment Programme (CIP) to encourage stabilization and economic development against the background of the Syrian crisis. It includes EUR 340 million (USD 408 million) of investments to improve the quality of surface and groundwater and protect the coastal marine environment through expansion and upgrade of wastewater treatment plants and rehabilitation and construction of wastewater networks. The CIP has divided investments into two implementation cycles, and most of these investments still require the completion of preparatory studies to allow them to move forward for appraisal and financing. EIB will use TA project funds to enable investments in priority projects to go forward, working closely with the Council for Reconstruction and Development (CDR) of Lebanon.

Tunisia Sub-Project

Many WWTPs in Tunisia suffer from the lack of human and financial resources to adequately operate and maintain the facilities. Lack of funds to hire skilled personnel and labourers, failing and poorly maintained essential equipment as well as industrial discharges are the main concerns raised. Industrial polluters discharging into the sewer systems such as municipal slaughter houses and the auto service stations scattered around the cities are the main causes of poor performance of some of the WWTPs. Although it is required by law, the majority of industrial units have not yet installed preliminary or pre-treatment units in order to reduce pollutants discharged into the sewerage collection network.

Preparatory studies are required to ensure that the identified investments can be considered for financing by EIB (or any other financing institution). These will ensure that the technical solutions proposed are the most appropriate to the specific context, the environmental and social implications of the project have been duly taken into account, the climate risk

vulnerability of the investments has been assessed and the required risk mitigation solutions costed into the overall project design, and the cost estimates are reliable.

The TA may also support the financial sustainability of the investments through developing the case necessary to obtain any government support needed and/or the setting of an appropriate tariff system. The TA may also identify institutional capacity building elements necessary for project implementation (e.g. need for a specific Project Implementation Unit). Such activities would endeavour to include women from various agencies to ensure that both genders are adequately represented throughout the process. The TA sub project could also support women engagement in the wastewater sector by helping the WE and municipalities adopt human resource and employment policies that include gender-sensitive approaches and adjusting working conditions and atmosphere to encourage women to pursue a career in the wastewater sector.

The upgrade and rehabilitation of existing WWTPs require additional staff, new skills and responsibilities for the technical and managerial staff. To ensure that the relevant WWTP staff are sufficiently capable of operating and managing the upgraded plants, a capacity building program needs to be put in place. The components of capacity building program will be identified and detailed in the feasibility studies.

On the other hand, it is known that the Office Nationale d'Assainissement (ONAS), the national agency responsible for treatment of wastewater, does not charge the full cost for its services, mainly because of the inadequate tariff adjustments. The lack of long-term visibility with regard to the level of financial support hampers its operational capacity and there is an urgent need to initiate an inter-ministerial dialogue in order to achieve financial equilibrium not only via tariffs but also via tax revenue and budgetary transfers. This will enable ONAS to operate its plants and sewage networks at the required level and to plan its investments over the long term. Means of assistance will be identified and developed in the feasibility study.

3 Scope of TA Sub-Projects

Requirements for TA to be provided to each TA sub-project will be assessed by EIB technical experts and agreed with the counterpart to be supported. It is expected that the bulk of the TA will be provided by service providers, who will be procured using EIB's Procurement Rules. A Procurement Plan showing expected steps and indicative timing forms Appendix 6 to the PCA.

The activities/tasks undertaken within each TA sub-project could include, but are not limited to, the following:

- Identification of the main sources of pollution including industrial, agricultural and domestic;
- Existing status of existing wastewater treatment works, wastewater flows and quality characteristics from urban, rural and industrial wastewater sources;
- Examination of on-going projects related to wastewater treatment systems for the relevant areas and synergies with the potential new investments;
- Definition of the area of new investment projects and identification of infrastructure such as existing structures, pumping stations and mixing stations;
- Preparation of tender documentation;
- Assistance to the project promoters with the tendering process, bid evaluation and awarding of the construction contracts as well as contract negotiation process and contract signature;
- Assistance to the project promoters with the preparation of terms of references for the procurement of consultants for construction supervision and/or project management;
- Assistance with the preparation of Project Implementation Manuals (PIM) and assistance

and training of the project promoters on management, monitoring and evaluation of project performance;

- Review of available information on the tariff setting and subsidy payment policy.

4 Outputs of the TA Project

The outputs of the TA project are expected to include:-

- Preparatory studies to ensure that the technical solutions proposed are the most appropriate to the specific context, the environmental and social implications of the envisaged investment project have been duly taken into account, the climate risk vulnerability of the investments has been assessed and the required risk mitigation solutions costed into the overall project design, and the cost estimates are reliable.
- The TA may also support the financial sustainability of the investments through developing the case necessary to obtain any government support needed and/or the setting of an appropriate tariff system. The TA may also identify institutional capacity building elements necessary for project implementation (e.g. need for a specific Project Implementation Unit). Such activities would endeavour to include women from various agencies to ensure that both genders are adequately represented throughout the process.
- If required, capacity-building activities will be provided to enable the Affiliated Companies to better operate and maintain wastewater collection and treatment systems. Technical and administrative training could be provided covering some or all of administrative, technical, financial and environmental aspects.
- Targeted surveys and studies to enable informed decision-making and enhance the sustainability of the investments and their beneficial impacts.
- TA sub-project outputs per country.

In the case of the Lebanon Sub-Project, they are also expected to include surveys for all target areas to be served with the objective of assessing the affordability and willingness of households to pay for wastewater services. This would allow the Government of Lebanon to set a reasonable and affordable wastewater tariff that will cover a significant amount of the operation and maintenance costs. Industrial wastewater within the target catchment areas could also be surveyed to assess pollution sources. The assessment would provide the basis for the identification of investment needs within the target areas. Lebanon currently disposes of a dedicated depollution credit line (Lebanon Environmental Pollution Abatement Programme) that can provide concessional financing to operators willing to invest in industrial wastewater treatment. A pre-feasibility study would be undertaken to investigate the possibility of reusing treated wastewater on a pilot scale within the project area based on the draft guidelines and standards for reuse that are yet to be adopted by the government. Managed Aquifer Recharge (MAR) techniques would be assessed as a means to combat seawater intrusion into coastal aquifers.

The development of the investments to be supported by the Tunisian TA sub-project is more advanced than those in Egypt and Lebanon and will, in addition to the points above, allow:

- upgrade of ten WWTPs to allow them to fully comply with the national standard NT106.02 for discharge of treated wastewater into receiving water bodies and with national standard NT106.03 for the reuse of treated wastewaters on agricultural lands;
- maintenance of uniform, regular and adequate quality of treated wastewater during peak flow discharges and to potential agricultural users;

- improvement of the operation and maintenance of the ten WWTPs by reducing and/or eliminating periods of dysfunction and therefore avoid the discharge of inadequately treated wastewaters into receiving water bodies;
- optimization of the performance of the ten WWTPs and improved energy efficiency; and
- strengthened technical and management capacities of the national sanitation company.

To properly operate within a jurisdiction, ONAS relies on the wastewater Master Plans that are regularly updated to cover a ten-year investment horizon. The Wastewater Master Plans for the governorates of El Kef, Beja, Kasserine, Tozeur, Kébili and Tataouine which cover six of the ten WWTPs are outdated and will need to be reviewed.

A comprehensive wastewater Master Plan will include but is not limited to the following tasks:

- summarizing and describing the wastewater system;
- describing the service level goals for the system;
- projecting wastewater collection demand for the 10 and 20-year planning horizon;
- evaluating the wastewater collection system and identifying deficiencies;
- evaluating the wastewater treatment system and identifying deficiencies;
- analysing available engineering and financial alternatives for maintenance and system improvements;
- recommending updates to the capital improvement program and operational structure of the wastewater collection and facility system; and
- identifying any regulatory concerns for the collection and facilities system.

ANNEX K2 CO-FINANCING COMMITMENT LETTERS FROM COUNTRIES CP1.2

Arab Republic of Egypt
Cabinet of Ministers
Ministry of Environment
Egyptian Environmental Affairs Agency

جمهورية مصر العربية
رئاسة مجلس الوزراء
وزارة البيئة
جهاز شئون البيئة

Ms. Naoko Ishii
Chief Executive Officer and Chairperson
Global Environmental Facility (GEF)

Subject: Co-finance contribution from Egypt to Child Projects 1.2, 2.1 and 4.1 of the MedProgramme

Dear Ms. Ishii,

Within the framework of the mutual and fruitful cooperation between the Global Environment Facility (GEF), UN Environment MAP and the Egyptian Environmental Affairs Agency (EEAA), I would like to seize this opportunity to convey my appreciation for your continuous cooperation and support to EEAA through the forthcoming Mediterranean Sea Program (MedProgramme): Enhancing Environmental Security.

I would like to inform you that EEAA is committed to joining forces with the GEF to reduce environmental stress on the Mediterranean Sea through the multi-focal area MedProgramme, through activities that will be undertaken in Egypt in support of Child Projects 1.2, 2.1 &4.1. In line with the GEF's co-financing policy, EEAA has identified a number of national programs and initiatives to support the achievement of the goals and objectives of these Child Projects.

On the other hand, we are in process of preparing the co-finance letter for the remaining child projects.

Co-financing for Child Project 1.2

EEAA will support the implementation of Child Project 1.2 and its objectives to reduce land-based pollution in priority coastal hotspots and to measure progress to impacts, through planning and development of institutional capacity and monitoring, pollution reduction, environmental inspection, awareness raising. In addition to, Implementation of sustainable development policies, capacity building and dedicated staff time and institutional support, as appropriate, for the execution and monitoring of the project activities.

The estimated in-kind contribution, related to the national programmes, staff time and institutional support is USD 4,187,000.

Co-financing for Child Project 2.1

Child Project 2.1 is fully consistent with and supportive to the implementation of the national policy framework of the Barcelona Convention, with regard to the Strategic Action Programmes to enhance climate resilience and water security in coastal zones. In addition to promoting activities for the protection of coastal habitats, regional plans on management of coastal aquifers and related ecosystems, Programme-wide communication and knowledge management.

٣٠ طريق حلوان الزراعي-خلف فندق هوليداى إن المعادى-القاهرة، الرقم البريدى ١١٧٢٨ ت: ٢٥٢٥٦٤٥٢ فاكس: ٢٥٢٦٦٠١٦-٢٥٢٥٦٤٥٧
30 Misr Helwan El-Zyrae Rd., Maadi, Cairo P.O. Box 11728 Tel: 25256452 Fax: 25266016-25256457

Arab Republic of Egypt
Cabinet of Ministers
Ministry of Environment
Egyptian Environmental Affairs Agency

جمهورية مصر العربية
رئاسة مجلس الوزراء
وزارة البيئة
جهاز شئون البيئة

These activities will build upon and benefit from several national programmes undertaken by the Egyptian government, including establishment of a National Integrated Coastal Zone Management (ICZM) multipurpose monitoring network for groundwater, seawater and other climate parameters with relevant measurable indicators, as well as engagement of all relevant stakeholders in the implementation of a National ICZM Strategy and national plans in Egypt. In addition to enhancing the ICZM awareness, issues affecting coastal communities and the environment.

The estimated in-kind contribution, related to the national programmes, staff time and institutional support is USD 4,064,000.

Co-financing for Child Project 4.1

EEAA recognizes that awareness raising and effective communication are key to the success of all Child Projects and the MedProgramme as a whole. For this reason, EEAA also pledges staff time and institutional support for the Child Project 4.1 and its Programme-wide strategies for knowledge management and communication

The estimated in-kind contribution, related to the national programmes, staff time and institutional support is USD 2,000,000.

We look to working with GEF for the good of the Mediterranean Sea and the achievement of our shared global environmental goals.

Yours sincerely,

Mohamed Shehab Abdelwahab

Shehab Abdelwahab

GEF Operational Focal Point
Chief Executive Officer

٣٠ طريق حلوان الزراعى-خلف فندق هوليداى إن المعادى-القاهرة، الرقم البريدى ١١٧٢٨ ت: ٢٥٢٥٦٤٥٢ فاكس: ٢٥٢٦٦٠١٦-٢٥٢٥٦٤٥٧

30 Misr Helwan El-Zyraa Rd., Maadi, Cairo P.O. Box 11728 Tel: 25256452 Fax: 25266016-25256457

REPUBLIC OF LEBANON
MINISTRY OF ENVIRONMENT

THE MINISTER

Beirut, 02-08-2018
Our Ref: 4387/B

Mr. Gaetano Leone
United Nations Environment Programme
Mediterranean Action Plan Coordinator
48, Vassileos Konstantinou Ave., 11635 Athens
P.O Box: 18019, Greece
Tel.: +30 210 7273100
Fax: +30 210 7253196

Dear Mr. Leone,

Subject: Lebanon's co-financing contributions for "MedProgramme Child project components 1.2, 2.1 and 4.1"

The Ministry of Environment reiterates its full endorsement to the MedProgramme Child project and mainly components 1.2, 2.1 and 4.1, which are still under preparation by UNEP, in full coordination with the Ministry of Environment and national stakeholders, and to be financed by GEF.

Within this context, we are sending you copies of Annex 1 (three table templates) related to the co-financing of the MedProgramme Child Projects 1.2, 2.1 and 4.1 for your kind consideration.

Looking forward to the approval and successful implementation of MedProgramme Child Project.

Sincerely Yours,

Republic of Lebanon
Ministry of Environment

Tarek Al Khatib
Minister of Environment
GEF Operational Focal Point

Enclosed:
- *Annex 1: Co-Financing for Child Project 1.2, 2.1 and 4.1*

Cc:
- Ministry of Environment - Registry - Department of Public Relation and External Affairs
- Ministry of Environment - Service of Natural Resources - Department of Natural Resources Protection
- Ministry of Environment – Service of Urban Environment – Department of Urban Environmental Protection

Annex 1
Details on co-financing for the MedProgramme

A. Child Project 1.2 "Mediterranean pollution hot spots investment project"

Grant co-financing

1. Grant (cash) co-financing

	Description of proposed contributing activity	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Cleaning of Litani River that End In the Mediterranean Sea*	*Lebanese Government Law 63/2016*	*2017 - 2023*	*204 M*
			Total:	*204 M*

In-kind co-financing

2. In-kind co-financing (projects, initiatives, or programs)

	Name of project, initiative, or program	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Lebanon Environmental Pollution Abatement Project*	*Italian Agency for Development Cooperation*	*2014 – 2020*	*2.3 M*
2.	*Improve Capacity for Environmental Compliance Project*	*Institutional Development Fund - World Bank*	*2013 - 2016*	*300,000*
4.	*Al Ghadir Industrial Waste water assessment*	*EIB - Mediterranean Hotspots Investment Programme (MeHSIP)*	*2017-2018*	*100,000*
5.	*Strengthening Lebanese Water and Agriculture Sector Programme*	*Dutch Emabaasy*	*2017-2018*	*250,000*
			Total:	*3.1 M*

3. In-kind co-financing (staff time and institutional support)

	Type of support	Description	Estimated yearly co-financing contribution (USD)	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Staff time*	*Two employees working part time on the project for 600hours /year at 67$/hr*	*80,000*	*480,000*
			Total:	*480,000*

Annex 1
Details on co-financing for the MedProgramme

A- Child Project 2.1 "Mediterranean coastal zones: climate resilience, water security and habitat protection"

Grant co-financing

1. Grant (cash) co-financing

	Description of proposed contributing activity	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Cleaning of Litani River that End In the Mediterranean Sea and the construction of waste water networks and waste water treatment plants all along the southern coast of Lebanon*	*Lebanese Government Law 63/2016*	*2017 - 2023*	*204 M*
			Total:	*204 M*

In-kind co-financing

2. In-kind co-financing (projects, initiatives, or programs)

	Name of project, initiative, or program	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Dumpsite Rehabilitationon on the coast of the City of Saida*	*National government*	*2012 - 2016*	*25,000,000*
2.	*EMRL (Environmental Ressources Monitoring in Lebanon)*	*Greece*	*2011-2013*	*1,640,000*
			Total:	*26,640,000*

3. In-kind co-financing (staff time and institutional support)

	Type of support	Description	Estimated yearly co-financing contribution (USD)	Estimated total co-financing contribution (for the duration of the project 72 months) (USD)
1.		*Three employee working part time on the project for 600 hours /year at 67$/hr*	*120,600*	*723,600*
			Total:	*723,600*

Republic of Lebanon
Ministry of Environment

B- Child Project 4.1 "Mediterranean Sea Basin environment and climate regional support project"

1. In-kind co-financing (staff time and institutional support)

	Type of support	Description	Estimated yearly co-financing contribution (USD)	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Staff time*	*2 Employee working part time on the project (200 hours per year at 67 USD/hr)*	*26800*	*160,800*
			Total:	*160,800*

REPUBLIC OF TUNISIA
—0—
MINISTRY OF LOCAL AFFAIRS AND ENVIRONMENT

— 8454

Tunis:.....

20 SEPT 2018

Ms. Naoko Ishii
Chief Executive Officer and Chairperson
Global Environment Facility (GEF)

Subject: Co-financing contribution from Tunisia for Child Projects 1.2, 2.1 and 4.1 of the MedProgramme.

Dear Ms. Ishii,

The Ministry of Local Affairs and Environment looks forward to Tunisia's forthcoming collaboration with the GEF in the context of the "Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security" (GEF ID 9607). The government of Tunisia is committed to joining forces with the GEF to reduce environmental stress on the Mediterranean Sea through the diverse activities foreseen in the multi-focal area MedProgramme, including those that will be undertaken in Tunisia in support of Child Projects 1.2, 2.1 and 4.1. In keeping with the GEF's policy on co-financing, the government of Tunisia has identified a number of national initiatives that will support the implementation of these Child Projects and that will contribute to the achievement of their objectives.

Co-financing for Child Project 1.2

Child Project 1.2 will mobilize major innovative investments to support countries in efforts to reduce land-based sources (LBS) of pollution through implementation of their National Action Plans (NAPs), developed in accordance with the LBS Protocol of the Barcelona Convention and the corresponding Strategic Action Programmes (SAP-MED). In Tunisia, these investments will enable the rehabilitation of wastewater treatment facilities, the depollution of land areas, and the reduction of mercury releases. The government of Tunisia is carrying out several projects that will reinforce these activities, including through the preparation of a national chemicals database, the development of a monitoring network of contaminated sites, and the elimination of PCB-containing equipment, amongst other actions. Furthermore, the government of Tunisia will dedicate staff time as well as institutional support for this Child Project.

The value of all related complementary initiatives, staff time and institutional support is estimated at **USD 1,684,400**, which represents the in-kind co-financing contribution (**1,228,000 USD** for related initiatives and **456,400 USD** for staff time and institutional support) of the government of Tunisia to Child Project 1.2.

Co-financing for Child Project 2.1

Child Project 2.1 is devoted to increasing climate resilience and water security in coastal zones while also promoting the protection of coastal habitats. The activities foreseen in Tunisia in this framework include a national assessment and stakeholder consultation to support ratification of the Protocol for Integrated Coastal Zone Management, and a comprehensive set of actions to enhance the management of the Ras Jebel coastal aquifer and its related ecosystems. These activities will build upon and benefit from several national initiatives undertaken by the government of Tunisia, including collaborations on integrated water resources management at the local level, and the National Strategy on the Green Economy. In addition, the government of Tunisia will pledge staff time and institutional support to ensure the successful execution of this Child Project.

The value of all related complementary initiatives, staff time and institutional support is estimated at **USD 38,622,000**, which represents the in-kind co-financing contribution (**38,530,000 USD** for related initiatives and **92,000 USD** for staff time and institutional support) of Tunisia to Child Project 2.1.

Co-financing for Child Project 4.1

The government of Tunisia also recognizes that awareness raising and effective communication are key to the success of all Child Projects and the MedProgramme as a whole. For this reason, the government of Tunisia also pledges staff time and institutional support for the Child Project 4.1 and its Programme-wide strategies for knowledge management and communication. The value of the corresponding staff time and institutional support is estimated at **USD 164,000**, which represents the in-kind co-financing contribution of Tunisia to Child Project 4.1.

We look forward to working together with the GEF on these important new activities in the Mediterranean.

Yours sincerely,

Ministre des Affaires Locales
et de l'Environnement
Riadh MOUAKHAR

Annex 1
Details on co-financing for the MedProgramme

A. Child Project 1.2 "Mediterranean pollution hot spots investment project"

Grant co-financing

1. Grant (cash) co-financing

*Note: The provision of grant (cash) co-financing is welcome **but is not required** for the submission of the Child Projects to the GEF for approval.*

	Description of proposed contributing activity	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.				

In-kind co-financing

2. In-kind co-financing (projects, initiatives, or programs)

Note: These may include ongoing projects or those that have been recently completed (within three years), national/regional strategies, etc.

	Name of project, initiative, or program	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Project post 2020 environmental protection strategy*	*National government (DGEQV)*	*2018-2019*	*100,000*
2.	*Project to implement national chemicals database*	*National government (ANCSEP)*	*2018-2019*	*100,000*
3.	*Development of contaminated sites monitoring network*	*National government (ANPE)*	2018-2019	*50,000*
4.	*National communication plan on chemicals and waste management*	*SAICM QSP*	2018-2019	*20,000*
	Project of elimination of equipment containing or contaminated by PCB and their replacement by equipments complying with standards and rehabilitation and decontamination of the site (In the framework of the lake of Bizerte Integrated depollution)	*BEI*	2019-2022	*958,000*
			Total:	***1,228,000***

3. In-kind co-financing (staff time and institutional support)

Note: The contribution of staff from the government and national institutions is calculated on the basis of an estimated yearly time commitment and hourly compensation (For example, 50 hours per year at 100 USD per hour, for a total yearly contribution of 5,000 USD, or 25,000 USD over five years).

	Type of support	Description	Estimated yearly co-financing contribution (USD)	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Staff time*	*Focal point project (ministry of Local Affairs and the Environment) (200 hours per year at 10 USD/hr)*	*2,000*	*12,000*
2.	*Staff time*	*Director of industrial pollution control (200 hours per year at 10 USD/hr)*	*2,000*	*12,000*
3.	*Staff time*	*MedProgramme C&W Focal Point (300 hours per year at 10 USD/hr)*	*2,400*	*14,400*
4.	*Staff time*	*Technical assistant*	*1,000*	*6,000*
5.	*Staff time*	*Administration assistant*	*1,000*	*6,000*
6.	*Staff time*	*Stockholm convention on POP Focal Point (50 hours per year at 10 USD/hr)*	*500*	*3,000*
7.	*Staff time*	*Minamata convention on mercury Focal Point (50 hours per year at 10USD/hr)*	*500*	*3,000*
8.	*Institutional support*	*Meeting space for national steering committee*		*10,000*
9.	*Institutional support*	*Access to national database on contaminated sites, inventories of POP, hazardous waste, mercury.*		*350,000*
10.	*Institutional support*	*Telecommunication (data, voice)/printing*		*40,000*
			Total:	***456,400***

B. *Child Project 2.1 "Mediterranean coastal zones: climate resilience, water security and habitat protection"*

Grant co-financing

1. Grant (cash) co-financing

*Note: The provision of grant (cash) co-financing is welcome **but is not required** for the submission of the Child Projects to the GEF for approval.*

	Description of proposed contributing activity	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
			Total:	

In-kind co-financing

2. In-kind co-financing (projects, initiatives, or programs)

Note: These may include ongoing projects or those that have been recently completed (within three years), national/regional strategies, etc.

	Name of project, initiative, or program	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Support to Integrated Water Resources Management (AGIRE)*	*GIZ*	*2016-2019*	*5 800,000*
2.	*National strategy on green economy*	*Government*	*2018-2019*	*100,000*
3.	*National program for the coastal protection against erosion*	*Government (APAL)*		*600,000*
4.	*Coastal observatory*	*Government (APAL)*		*30,000*
6.	*Tunisian coastal protection program*	*KFW*	*2013-2024*	*32,000,000*
			Total:	***38,530,000***

3. In-kind co-financing (staff time and institutional support)

Note: The contribution of staff from the government and national institutions is calculated on the basis of an estimated yearly time commitment and hourly compensation (For example, 50 hours per year at 100 USD per hour, for a total yearly contribution of 5,000 USD, or 25,000 USD over five years).

	Type of support	Description	Estimated yearly co-financing contribution (USD)	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Staff time*	*Focal point component (Coastal Protection and Planning Agency) (300 hours per year at 10 USD/hr)*	*3,000*	*18,000*
2.	*Staff time*	*RAC/PAP Focal Point (Coastal Protection and Planning Agency) (100 hours per year at 10 USD/hr)*	*1,000*	*6,000*
3.	*Staff time*	*Director of coastal planning and rehabilitation program (Coastal Protection and Planning Agency)(200 hours per year at 10 USD/hour)*	*2,000*	*12,000*
4.	*Staff time*	*Technical assistant (Coastal Protection and Planning Agency) (50 hours per year at 10 USD/hr)*	*500*	*3,000*
5.	*Staff time*	*Administration assistant (Coastal Protection and Planning Agency) (50 hours per year at 10 USD/hr)*	*500*	*3,000*
6.	*Institutional support*	*Meeting space for national steering committee*		*10,000*
7.	*Institutional support*	*Telecommunication (data, voice)/printing*		*40,000*
			Total:	***92,000***

C. *Child Project 4.1 "Mediterranean Sea Basin environment and climate regional support project"*

Grant co-financing

4. Grant (cash) co-financing

*Note: The provision of grant (cash) co-financing is welcome **but is not required** for the submission of the Child Projects to the GEF for approval.*

	Description of proposed contributing activity	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.				
			Total:	

In-kind co-financing

5. In-kind co-financing (projects, initiatives, or programs)

Note: These may include ongoing projects or those that have been recently completed (within three years), national/regional strategies, etc.

	Name of project, initiative, or program	Funding source	Implementation period	Estimated total co-financing contribution (2019 – 2024) (USD)
1.				
			2017 – 2022	
			Total:	

6. In-kind co-financing (staff time and institutional support)

Note: The contribution of staff from the government and national institutions is calculated on the basis of an estimated yearly time commitment and hourly compensation (For example, 50 hours per year at 100 USD per hour, for a total yearly contribution of 5,000 USD, or 25,000 USD over five years).

	Type of support	Description	Estimated yearly co-financing contribution (USD)	Estimated total co-financing contribution (2019 – 2024) (USD)
1.	*Staff time*	*Focal point project (ministry of Local Affairs and the Environment) (200 hours per year at 10 USD/hr)*	*2,000*	*12,000*
2.	*Staff time*	*Director of industrial pollution control (100 hours per year at 10 USD/hr)*	*1,000*	*6,000*
3.	*Staff time*	*Director of Ecology and natural*	*1,000*	*6,000*

		environments (100 hours per year at 10 USD/hr)		
4.	*Staff time*	*Technical assistant*	*1,000*	*6,000*
5.	*Staff time*	*Administration assistant*	*1,000*	*6,000*
6.	*Staff time*	*Communication an awareness assistant*	*1,000*	*6,000*
7.	*Staff time*	*MedProgramme C&W Focal Point (100 hours per year at 10 USD/hr)*	*1,000*	*6,000*
8.	*Staff time*	*GWP-Med and UNESCO-IHP Focal Point (100 hours per year at 10 USD/hr)*	*1,000*	*6,000*
9.	*Institutional support*	*Meeting space for national steering committee*		*10,000*
10.	*Institutional support*	*Telecommunication (data, voice)/printing*		*100,000*
			Total:	***164,000***

ANNEX M: ACRONYMS AND ABBREVIATIONS

AC	Affiliated Companies
ANCSEP	National Agency for the Sanitary and Environmental Control of Products
ANPE	National Environmental Protection Agency
APAL	Coastline Protection and Development Agency
APR	Annual Project Review
ASM	Annual Stocktaking Meeting
AWP	Annual Work Programme
AZA	Allocated Zones for Aquaculture
AZE	Allowable Zones of Effects
BAT	Best Available Techniques
BC	Barcelona Convention
BD	Biodiversity
BEP	Best Environmental Practices
BMLWE	Beirut and Mount Lebanon Water Establishment
BOD_5	Five-day Biological Oxygen Demand
BWE	Bekaa Water Establishment
CAPW	Cairo and Alexandria Potable Water Organization
CAS	Central Administration for Statistics
CBIT	Capacity-building Initiative for Transparency
CBO	Community-Based Organization
CC	Climate Change
CDR	Council for Development and Reconstruction
CEO	Chief Executive Officer
CGRD	Commissioner General for Regional Development
CIP	Capital Investment Programme
ClimVar & ICZM	Integration of climatic variability and change into national strategies to implement the ICZM Protocol in the Mediterranean
CO_2 eq	Carbon Dioxide Equivalent
COD	Chemical Oxygen Demand
CoP	Community of Practice
COP	Conference of the Parties
CP	Child Project
CRDA	Regional Commission for Agricultural Development
CSO	Civil Society Organization
CW	Chemicals & Waste
DGEQV	Direction Générale de l'Environnement et de la Qualité de Vie
DHMPE	Hygiene and Protection of the Environment Directorate
DSA	Daily Subsistence Allowance
EA	Executing Agency

EBRD	European Bank for Reconstruction and Development
EcAp	Ecosystem Approach
EEAA	Egyptian Environmental Affairs Agency
EEAP	Egyptian Environmental Action Plan
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ELV	Emission Limit Values
EO	Ecological Objective
EQS	Environment Quality Standard
ER	Executive Regulations
EWRA	Egyptian Water and Wastewater Regulatory Agency (EWRA)
FAO	Food and Agriculture Organization of the United Nations
FEMIP	Facility for Euro-Mediterranean Investment and Partnership (FEMIP)
FINWACC	Mediterranean Sea Finance for Water Systems and Clean Coasts
GEF	Global Environment Facility
GEF TF	Global Environment Facility Trust Fund
GES	Good Environmental Status
GETF	Global Environment & Technology Foundation
GFCM	General Fisheries Commission for the Mediterranean
GIS	Geographic Information System
GWP-Med	Global Water Partnership - Mediterranean
HCWW	Holding Company for Water and Wastewater
IA	Implementing Agency
IAP	Integrated Approach Pilot
IDR	Indices of Regional Development
IFI	International Financing Institution
IHP	International Hydrological Programme
IMAP	Integrated Monitoring and Assessment Programme
INS	National Statistics Institute
IO	Information Officer
IOE	Independent Office of Evaluation
ITCEQ	Institut Tunisien de la Compétitivité et des Etudes Quantitatives
IW	International Waters
IWC	International Waters Conference
IW:LEARN	International Waters Learning and Resource Exchange Network
KM	Knowledge Management
LBS	Land Based Sources
LDCF	Least Developed Country Fund
LME	Large Marine Ecosystem
M&E	Monitoring and Evaluation
MALE	Ministry of Local affairs and the Environment

MALR	Ministry of Agriculture and Land Reclamation
MAP	Mediterranean Action Plan
MAR	Managed Aquifer Recharge
MARHF	The Ministry of Agriculture, Hydraulic Resources and Fisheries
MDICI	Ministry of Development, Investment and International Cooperation
MEA	Multilateral Environmental Agreement
MedPartnership	Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem
MedPCU	MedProgramme Coordinating Unit
MedProgramme	Mediterranean Sea Programme
MED POL	The Marine Pollution Assessment and Control Component of MAP
MF	Ministry of Finance
MHUUC	Ministry of Housing, Utilities and Urban Communities
MOE	Ministry of Environment
MOEW	Ministry of Energy and Water
MoHP	Ministry of Health and Population
MoPSE	Ministry of Public Sector Enterprises
MOPH	Ministry of Public Health
MPA	Marine Protected Areas
MPH	Ministry of Public Health
MTE	Mid-Term Evaluation
MWRI	Ministry of Water Resources and Irrigation
NAP	National Action Plan
NGO	Non-Governmental Organization
NLWE	North Lebanon Water Establishment
NPFP	National Project Focal Point
NOPWASD	National Organization for Potable Water and Sanitary Drainage
ODS	Ozone Depleting Substances
ONAS	Office National de l'Assainissement
OPS	Overall Performance Studies
PAA	Programme and Administration Assistant
PAP/RAC	Priority Actions Programme - Regional Action Center
PCB	Polychlorinated Biphenyl
p.e.	population equivalent
PFA	Programme Financial Assistant
PFD	Programme Framework Document
PIF	Project Identification Form
PIM	Project Implementation Manuals
PIR	Project Implementation Report
Plan Bleu	Plan Bleu Regional Activity Centre
PM	Programme Manager
PMC	Project Management Cost

PO	Programme Officer
PoM	Programme of Measures
POP	Persistent Organic Pollutant
PPG	Project Preparation Grant
PPP	Public Private Partnership
PSC	Project Steering Committee
QSR	Quality Status Report
RAC	Regional Activity Centre
RP	Regional Plan
SAP-BIO	Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean
SAP-MED	Strategic Action Programme to address Pollution from Land-Based Activities
SCCF	Special Climate Change Fund
SCP/RAC	Sustainable Consumption and Production Regional Activity Centre
SDG	Sustainable Development Goal
SEDI	Socio-Economic Development Indicator
SGP	Small Grants Programme
SLWE	South Lebanon Water Establishment
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SONEDE	Société Nationale d'Exploitation et de Distribution des Eaux
SPA/RAC	Specially Protected Areas Regional Activity Centre
STAR	System for Transparent Allocation of Resources
TA	Technical Assistance
TDA	Transboundary Diagnostic Assessment
TDA-MED	Transboundary Diagnostic Analysis for the Mediterranean
TE	Terminal Evaluation
TEQ	Toxic Equivalent
TN	Total Nitrogen
TP	Total Phosphorous
TSS	Total Suspended Solids
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UN Environment	United Nations Environment Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar
UWW	Urban Wastewater
US EPA	US Environmental Protection Agency
WE	Water Establishment
WW	Wastewater
WWF Med PO	WWF Mediterranean Programme Office

WWTP	Wastewater Treatment Plant

ANNEX N: PROJECT IMPLEMENTATION TIMETABLE

Component 1: National actions: Nutrient reduction investments in coastal hotspots.

Outcomes		Outputs	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
			S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Outcome 1: Investments in upgrading WWTPs and reusing of treated wastewater, and/or remediation of former industrial sites, and/or depollution of catchment area in Egypt, Lebanon and Tunisia are secured through strengthened capacity and increased country commitments.	Output 1.1 to 1.5 refer to Investments in Egypt in the depollution of the waters in drains and canals in the Nile Delta and the Mediterranean Sea through investments in wastewater collection and treatment	**Output 1.1:** Preparatory studies finalized.										
		Output 1.2: Capacity-building activities to enable the national water and sanitation companies to better operate and maintain wastewater collection and treatment systems finalized.										
		Output 1.3: Targeted surveys and studies to enable informed decision-making and enhance the sustainability of the investments and their beneficial impacts, prepared.										
		Output 1.4: Public awareness raised on the benefits of proper										

Outcomes		Outputs	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
			S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
		wastewater disposal.										
		Output 1.5: Gender equality mainstreamed in the wastewater sector in Egypt.										
	Outputs 1.6 to 1.10 refer to investments in Lebanon in wastewater collection systems in coastal hotspots.	**Output 1.6:** Preparatory studies, finalized.										
		Output 1.7: Responsibilities defined, and operation procedures developed and submitted for adoption by relevant authorities.										
		Output 1.8: Monitoring and evaluation capacity of MOEW and WEs improved.										
		Output 1.9: Lebanon Surveys and studies to enable informed decision-making and enhance the sustainability of the investment and of its beneficial										

Outcomes		Outputs	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
			S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
		impacts, prepared.										
		Output 1.10: Gender equality mainstreamed in the wastewater sector in Lebanon.										
	Outputs 1.11 to 1.13 refer to investments for the upgrading and/or extension of 10 WWTPs to improve the quality of Tunisian surface water, groundwater, and coastal waters.	**Output 1.11:** Preparatory studies, finalized.										
		Output 1.12: Capacity enhancement of ONAS to operate and maintain wastewater systems completed.										
		Output 1.13: Wastewater Master Plans for the targeted regions are updated.										

COMPONENT 2: REGIONAL COMPONENT: HARMONIZATION OF RELEVANT STANDARDS.

Outcome	Output	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Outcome 2: Effectiveness of environmental management by the Contracting Parties to the Barcelona Convention increased through the development of common environmental standards on desalination, aquaculture, and wastewater and sludge management.	**Output 2.1:** Regional standards on wastewater management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.										
	Output 2.2: Regional standards on sludge management; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.										
	Output 2.3: Regional standards on desalination; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.										

Outcome	Output	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
	Output 2.4: Regional standards for reducing pollution from aquaculture; regional and national measures to implement standards developed and submitted for deliberation of the Contracting Parties of the Barcelona Convention.										

ANNEX O: Gender Assessment and Action Plan
Child Project 1.2: Mediterranean Pollution Hot Spots Investment Project

prepared by Debasmita Boral
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Mediterranean Action Plan

1. Introduction

This Gender Assessment has been prepared as an input for the design of the GEF-funded 'Mediterranean Pollution Hot Spots Investment Project', (also referred to as the Child Project 1.2 of the MedProgramme). This project is being envisioned under the aegis of the Mediterranean Sea Programme (MedProgramme), a comprehensive and powerful response to the environmental and social challenges faced in the region. Comprising of regional components in tandem with national activities, this project will involve three of the nine[1] MedProgramme beneficiary countries: Egypt, Lebanon and Tunisia.

For the broader context of the Child Project 1.2, it is important to understand the vision, breadth and capacity of the MedProgramme. The MedProgramme is the third step of 20 years of cooperation between UN Environment/MAP and GEF in the Mediterranean region. It builds upon the foundation created by both the successful implementation of previous GEF projects and the legal framework provided by the Barcelona Convention and its protocols. The Programme encompasses a series of interconnected projects (Child Projects or CP[2]) based on an overarching vision for change: 'A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse, contributing to sustainable development for the benefit of present and future generations'. Through the joining of forces of three GEF focal areas and of numerous partners[3] including UN agencies, development banks, MAP Regional Activity Centers (RACs), NGOs and others, under the leadership of UN Environment/MAP, the MedProgramme is expected to achieve large-scale impacts in improving livelihood and health of coastal populations, water security, and sustainability of marine and coastal ecosystem services. The Programme is, at once, a pioneering effort to generate dialogue, cooperation, and also for taking action on a regional scale for greater gender equality; and will, therefore, strategically contribute to the sustainable development efforts and address gender gaps in the Mediterranean basin.

CP 1.2's focus on wastewater and sludge management, nutrient pollution mitigation and development of common environmental standards in the region, has positive ramifications for both the Paris Agreement and the Sustainable Development Goals (SDGs). At World Water Day 2017, wastewater was recognized as a valuable resource in the circular economy, and a number of countries earmarked wastewater as a priority sector in the nationally determined contributions (NDCs).[4] Further, SDG 6 (Ensure Availability and Sustainable Management of Water and Sanitation for All) is particularly relevant in the project context:. SDG 6 particularly recognizes high water stress levels (over 60% of freshwater resources drawn than available or replenished) in northern Africa and western Asia, which the CP 1.2 can uniquely contribute to with the streamlined choice of beneficiary countries (Egypt, Lebanon and Tunisia). Targets 6.3, 6.4, 6.A and 6.B[5] are appropriate for the project's ambit and will provide, along with added

[1] The nine MedProgramme countries are: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, and Tunisia.
[2] At the time of its approval in 2016, the MedProgramme comprised of seven Child Projects. Subsequently, UN Environment/MAP developed a Mediterranean-focused climate change adaptation project, for financing through the Special Climate Change Fund (SCCF). It was agreed by the UN Environment/MAP, UN Environment and the GEF that this SCCF project would be managed, for all intents and purposes, as an additional Child Project of the MedProgramme. Hence, the number of Child Projects now stands at eight.
[3] GEF Lead Agency: UN Environment. Other GEF Agencies: European Bank for Reconstruction and Development (EBRD). Executing Partners: UNEP/MAP, European Investment Bank (EIB), UNESCO International Hydrological Program (IHP), Global Water Partnership (GWP) Med, World Wildlife Fund (WWF), MEDPOL, UNIDO, and IUCN.
[4] See full coverage by the World Resources Institute. Wastewater-related mitigation action communicated in the NDCs includes three broad areas:
- Energy production from wastewater.
- Reducing methane emissions from wastewater.
- Expansion of wastewater treatment plants.

[5] These targets are:
- 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

compliance with the Paris Agreement, unique entry points for mainstreaming gender actions in the Mediterranean context.

2. Contextualizing CP 1.2 and Gender Actions in the Mediterranean

Gender relations in the Mediterranean region are a kaleidoscope[6] of overlapping social, economic and cultural roles, spread across a diverse multitude of countries and communities. The European Mediterranean countries have distinct social patterns and gender norms, are distinctive in certain facets, from the Middle East and North Africa (MENA) Mediterranean countries, for example. Additionally, the varying political situations in the region also determine how women and men are able to access and leverage sustainable development opportunities to be able to cope with environmental degradation, pollution risks, water stress, and pressures on wastewater management infrastructure (or lack thereof).

As Child Project 1.2 has a streamlined focus on the Middle East and North Africa (MENA) Mediterranean countries, the various disparities as well as commonalities in gender relations and the socioeconomic situation of the region and among the countries require highlighting. Labour market dynamics, for example, exhibit a significant gender gap and is a regional issue: women's employment rates and labour force participation, as a general trend, are lower, along with an existing gender wage gap. Since economic capital is one of the important determinants of coping capacities to external shocks (in this case, economic costs of water pollution and adequate wastewater infrastructures, and health risks arising from nutrient surplus in water bodies, mismanagement of wastewater and lack of public awareness), women (and other marginalized groups, including ethnic minorities) are more likely to be vulnerable. The 'double disadvantage' of the situation should also be reckoned with: due to lack of viable economic capital or socioeconomic rights, vulnerable groups are often excluded from, and limited by their lack of representation and agency, in water and sanitation policies, and wastewater management plans– increasing the possibilities of exposure to the threats looming in the Mediterranean region.
Further, in Egypt, Lebanon and Tunisia, coupled with barriers to the labour market and employment opportunities, women face difficulties in garnering meaningful participation within civil society and political spheres. Decision-making power within the household and the polity is limited by the patrilocal organization of society and gender-based customs, reducing women's capacities to engage in the public sphere and gear development opportunities to safeguard their interests.
In recent years, however, more women have been capitalizing on opportunities presented by pluralistic interpretations of traditional gender norms, and entering both the work force and the public space as compared to previous trends. That being said, the gains achieved through social change in this region may not keep pace with the risks and threats arising from the lack of: water security; collective management policies and infrastructure for wastewater; implementation of common environmental protocols and prohibitive laws; containment of land-based pollutants and waste in the backdrop of climate change and environmental degradation in the region. The burdens of emerging health risks and shocks resulting from these paucities, thus, may fall on the vulnerable groups.

From a water security perspective, long-term, target-driven efforts, monitored by an evidence-based system, for efficient wastewater management, sanitation service delivery and maintenance of quality water supply are a prerequisite.[7] Practitioner-focused and research literature have indicated that, despite indication of mounting environmental, social and health costs of wastewater mismanagement, nutrient pollution and lack of public awareness on these issues, there is a lack of recognition both by policymakers and governments. Further, where legislation, common protocols and regulation measures do exist, these

- 6.A: By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programme, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.
- 6.B: Support and strengthen the participation of local communities in improving water and sanitation management.

[6] See this report by the Union for the Mediterranean (UfM) regarding an action plan towards investing in gender equality in the region.
[7] Bradley, J. D. & Bartram, K. J. "Domestic water and sanitation as water security: monitoring, concepts and strategy" in *Philophical Transactions*, (Vol. 371 No. 2002). (2013)

are not updated in accordance to latest health research, exposure data, and environmental effects mapping, and generally lack specific policy focus.[8] The Child Project 1.2, thus, is timely.

Through its capacity-building, information and public awareness, gender mainstreaming, and regional agreement outputs, the project will work towards reducing nutrient pollution and habitat degradation in coastal hotspots, and bolstering regional efforts and understanding for wastewater and sludge management, desalination and aquaculture. Managing anthropogenic nutrient pollution sources is being given priority to enhance the health of the Mediterranean LME and the northern African shorelines, while producing regional protocols and understanding human consequences form the hinterland of this project. The project addresses the current need to reinforce the institutional and technical capacity of stakeholders for the development and application of sanitation, wastewater and sludge management policies; to accelerate priority actions towards implementing common environmental standards; and, manage the social and environmental costs that are generated through the current baseline. It also provides the means for the Mediterranean countries to sustainably address a regional pollution hotspots issue, and to fill important knowledge gaps on the gendered facets of wastewater, sanitation and sludge management policies, alongside nutrient pollution, by different demographics of the Basin.

Additionally, given the project's focus, a gender lens is both necessary and relevant for the project to achieve its primary objective of bolstering a regional standard in the Mediterranean, improving human and ecosystem health, and managing nutrient pollution. Efforts will be made to incorporate the dimension of gender in a holistic manner in the project's activities: by capacity-building on how to mainstream gender-responsive actions (and, simultaneously awareness-raising) for personnel involved in the development of common environmental standards and management plans; by creating the impetus towards collection of gender-relevant data and information as pioneering effort to understand the crosscutting nature of gender and wastewater, sludge management and nutrient pollutants in the region; and, by engaging stakeholders on gender and socioeconomic aspects within policy solutions. In this manner, the project can ensure both environmental and social co-benefits through its results framework, optimal achievement of its objectives, SDG 6 priorities and Paris Agreement targets, as well as proactive compliance with GEF, EIB and UN Environment gender mainstreaming mandates, described in detail in the next section.

3. Gender Mainstreaming at the GEF, the EIB Group and UN Environment

Employing a strong mandate of operationalizing gender equality actions and promoting women's empowerment as well as contributing to the international conversation on gender mainstreaming, the GEF, the EIB Group and UN Environment have prioritized delivering inclusive and gender-responsive results, and mitigation solutions towards environmental issues, pollution risks, chemical hazards, and ecosystems degradation.

Having launched its initial gender policy in 2011, the GEF approved a reinforced policy in November 2017[9] at the 53rd Council Meeting, shifting the focus from a *'gender-aware, do no harm'* approach to a *'gender-responsive, do good'* approach. This requires robust standards in the design, implementation and evaluation of GEF sponsored activities, and introducing measures that will allow the GEF, over time, to better leverage strategic opportunities to address gender gaps critical to the achievement of global environment benefits through project funding.[10] More recently, the *GEF-7 Programming Directions*, prepared by the Secretariat at the Stockholm meeting (April 2018) further clarifies the GEF's evolving and progressive gender strategy – by providing gender action points tailored for each GEF focal area.[11] It lays out clear gender standards for each domain under the GEF.

[8] Isaacs, W. "Opportunities to Mainstream Gender in Water and Wastewater Infrastructure Projects: A Case Study in Barbados" in *Graduate Theses and Dissertations* from University of South Florida. (2017)

[9] See here for the latest GEF Gender Mainstreaming guide (EN). GEF. (2017) (publication)

[10] "A new Policy on Gender Equality for the GEF". GEF official website. (2017) (news update)

[11] GEF-7 Replenishment – Programming Directions. Meeting Report from the 4th meeting held at Stockholm, Sweden for the Seventh Replenishment of the GEF Trust Fund, in April 2018.

The EIB Group plays a central role in contributing to long-term growth, and, where needed, to economic recovery, and implementation of financial component of agreements concluded under the European development aid and cooperation policies.[12] This mandate lends the EIB a unique position in the region to contribute to poverty reduction, job creation, and overall sustainable and inclusive economic growth.[13] The EIB Group Strategy on Gender Equality and Women's Economic Empowerment (Protect, Impact, Invest)[14], thus, builds up the relevance of the organization's lending, blending and advisory work towards these with the promotion of gender equality. By ensuring gender actions are mainstreamed within the EIB Group's Business model, the Strategy ushers inclusive growth, increased employment, and productivity in the focal points. Currently, a two-staged Gender Action Plan[15] has been designed to guide and support the EIB Group to deliver on its vision, to streamline the gender focus and decide upon priority gender actions.

UN Environment recognizes the role of gender equality as a 'driver of sustainable environment development'[16], particularly to enhance environmental security and climate resilience; to assuage the stresses on natural resources and dependent communities; and, to preserve the health of large marine ecosystems (like the Mediterranean Basin) which provide vital environmental and economic services to coastal populaces. Overall, the organization focuses on the increased visibility and capacity of vulnerable groups in sustainable development policy- and decision-making. To that end, the agency has:

A. Published a lessons-learnt report[17], through gender case study compilation, on issues homologous with the overall MedProgramme agenda: gender integration in marine and coastal pollution, coastal disaster risk reduction and climate change adaptation, coastal developmental planning and urban issues, and advocacy for gender-inclusive marine ecosystem management and research.
B. Focused on gender as a crosscutting issue at the last UN Environment Assembly (UNEA) in December 2017, which convened at the headquarters (in Nairobi, Kenya) and brought together national representatives and environmental policymakers, as well as other stakeholders such as NGOs, think tanks, research groups focusing on the environment, on determining priority actions towards a pollution-free planet. This covered six domains of pollution: air, chemical, freshwater, marine, land, and wastes.

Thus, in keeping with the policies, actions and prerogatives of the GEF, EIB Group and UN Environment, the imperative of this Gender Assessment is the inclusion of more gender-responsive elements throughout this propitious project. Alongside, the development of a dedicated Gender Action Plan in the preparation stage (with clear timelines, responsible parties, indicators and budgetary allocations to be refined in the implementation phase) based on the Assessment, will ensure that the project generates gender-equitable and accessible benefits, promotes greater gender equality, and the empowerment of vulnerable gender demographics in context-specific locales.

See Section 4 from p. 5.

4. Methodology

The Gender Assessment has *four* methodological building blocks:

A. A comprehensive desk-review of existing literature was conducted on gender, nutrient pollution, wastewater and sludge management, and regional protocols from Egypt, Lebanon, and Tunisia (and, more generally, in the Mediterranean MENA region). The literature review revealed useful data and research on current employment trends in and infrastructure of wastewater and sludge management;

[12] See the full case study report, *Community-based Chemicals and Waste Management: Experiences from GEF Small Grants Programme* for more. UNDP. (2017)
[13] *Ibid.*
[14] *Ibid.*
[15] See the EIB Group Gender Action Plan.
[16] *Gender Equality and the Environment: Policy and Strategy.* UN Environment. (2015)
[17] *Regional Seas Reports and Studies No. 207* (forthcoming). Marine and Coastal Ecosystems Unit. UN Environment. (2018)

health hazards and biological differences arising out of exposure to different chemicals, nutrients and wastes; and guidelines on management and regulatory approaches. However, these thematic areas are not triangulated in mainstream research, and there exists lacunae of data and information sources on Mediterranean-specific gender-based and socioeconomic enquiry into these topics. Thus, a *socioeconomic and gender indicators and baseline* (Section 5) was derived from national aggregate statistics (from United Nations Development Programme – UNDP, World Economic Forum – WEF, Oxford Poverty and Human Development Institute – OPHI, International Labour Organization – ILO, and, the World Bank) to identify the potential impacts on different vulnerable groups and demographics, in view of the Mediterranean's designation as a global pollution hotspot, with threats to natural and managed resources, degradation of coastal systems and low-lying areas and marine pollution.

B. Gender-responsive entry points towards wastewater management, sanitation and water security, as well as nutrient pollution reduction have been expounded upon in Section 6. This section locates specific gender considerations and actions for the project outcomes, and presents normative information to gear the same towards better socioeconomic and environmental co-benefits.

C. Section 7 explores the policy environment in the three countries participating in Child Project 1.2, and presents a potential list of gender stakeholders, relevant for the project activities and collaborations during the project cycle.

D. Section 8 presents the Gender Action Plan, laying out specific action points mainstreamed within this GEF proposal's results framework, corresponding actions, indicators, timelines, responsible parties, and budget allocations, to address the gender issues identified by the preceding Assessment.

5. Mainstreaming Entry Points, Gender Baseline and Socioeconomic Issues in the CP 1.2 Beneficiary Countries

The three Mediterranean countries participating in the CP 1.2 face different developmental challenges and socioeconomic disparities. Adopting the current perspective from development research, this Assessment proceeds from the following entry point: poverty, labour force status and economic stability, marginalization, and gender inequities have conclusive and direct links with increased risk of exposure to pollutants, inability to cope with the environmental and social costs of wastewater, sanitation and sludge mismanagement, as well as determining coping capacities and managing health shocks.[18] Table I explores these nuances in detail by showing the potential of moving from a gender-blind paradigm to a gender-mainstreamed one[19], and why gender is a cross-cutting issue across the domains of nutrient pollution, wastewater, sanitation, and sludge management:

TABLE I: NUTRIENT POLLUTION, WASTEWATER, SANITATION, SLUDGE MANAGEMENT and GENDER – CROSSCUTTING ISSUES

[18] "Chemicals and Gender" in *Gender Mainstreaming Guidance Series.* UNDP. (publication year unknown)

[19] The MedProgramme's overall Gender Mainstreaming Strategy (GMS) 2019 – 2024 consists of three targets: (1) address Gender-blind hurdles with gender-differentiated impacts; (2) mitigate gender-specific barriers and discriminatory norms; and, (3) scale up gender-sensitive policies and deliver gender-responsive outcomes. The first target is relevant here as often issues of chemicals and waste, pollution risks and health hazards, and social costs of wastewater and sanitation mismanagement are deemed to affect the general populace. However, as feminist ecological studies have shown, such a gender-blind approach only leads to sub-optimal achievement of project objectives, as the different needs and perspective of vulnerable and/or marginalised groups are not adequately represented. Yet, at the same time, gender-blind policies and project goals can be easily made into gender-responsive ones, without requiring a complete overhaul of existing structures – this requires gender mainstreaming action points incorporated after in-depth studies of the context as well as stakeholder consultations.

GENDER BLIND	GENDER MAINSTREAMED	RELEVANCE
Nutrient pollutants, wastewater, sanitation and sludge – have a blanket effect on the general populace	• Spatial distribution of human habitat • Poverty and gender relations • Minority social groups and vulnerable subgroups	The current baseline of research and action on sociological and gender perspectives on issues such as wastewater, sanitation and sludge management, and nutrient pollution, compared to other crosscutting issues such as gender and climate change, displays scant resource allocation, generic one-size-fits-all approaches, and lack of attention from policymakers, governments and researchers. Recent findings from international organizations (The World Bank, World Health Organization – WHO, UNDP and UN Environment)[20] along with specialist research groups (Global Alliance on Health and Pollution – GAHP)[21] have established strong interrelationship between heightened exposure risks and residential proximity, poverty, and being a minority social group in a particular context. Spatial distribution of human habitat mimics social class and poverty levels more often than not – lower-income groups (who could often overlap with minority groups)[22] often settle near industrial plants, ports or airport facilities, and chemical usage sites, where land and infrastructure may be cheaper. These settlements often grow in response to economic stimuli (ribbon urbanization in the coasts, for example) and do not have adequate public services (such as wastewater, garbage disposal and sanitation)[23] as often the governments are unable to keep up with the pace of development. For example, in Lebanon, the World Bank finds that despite relatively high levels of income, the development of water services have lagged due to low efficiency of public expenditures. Capacity and institutional constraints have prevented Water Establishments (WEs) from being able to improve water supply reliability and financial viability to meet fast rising demands both from the municipal and industrial sectors. Residential proximity and quality, along with the aforementioned reasons, are exacerbated by added exposure from occupational hazards, specific susceptibility windows (urban poor women in pregnant or lactating stages), concurrent diseases or health indicator performance (usually, these population subgroups tend to be malnourished or have 'hidden hunger' or lack of micronutrients in diet).

[20] Multiple links:
- "Linkages between toxics and poverty" in *Toxics and Poverty*. World Bank. (2002) See here for a WHO bulletin on different metals and chemicals, and specific vulnerabilities.
- "Chemicals and Gender" in *Gender Mainstreaming Guidance Series.* UNDP. (publication year unknown)
- *Women and Chemicals: The Impact of Hazardous Chemicals on Women*. WECF WICF & UN Environment. (2015)

[21] See *The Poisoned Poor*. GAHP.

[22] Although not relevant to the geographical context of the region, research into American demographics have shown that poorer neighbourhoods in USA (with Afro-American, Hispanic, and South Asian populations) show greater exposure to toxic chemicals and heavy metals than affluent white neighbourhoods. Quoted from the *Scientific American*. (2012)

[23] "Poverty and the burden of chronic disease" in *Toxics and Poverty*. World Bank. (2002)

GENDER BLIND	GENDER MAINSTREAMED	RELEVANCE
Proactive investment in developing regulatory protocols for nutrient pollutants, wastewater management and contamination prevention plans, and strengthening coping capacities against pollution-risks and environmental as well as social costs of mismanagement are immediate measures	• Access to decision-making bodies • Time poverty • Heath equity • Economic welfare	Building on the previous point, assessing how different social groups are able to cope when pollution-risks or impacts of wastewater mismanagement and sanitation do occur, also reveal why sociological factors are of import in this conversation. A 2017 International Labour Organization (ILO) report[24] finds that the female share of the workforce in the formal wastewater treatment sector is marginal, with women often being excluded from technical and other professional positions. To assuage this gap and ensure gender-equal representation, capacity building and technical assistance outputs have to focus on training female researchers and workers for this sector, as this would form the basis for inclusive growth and decision-making. Additionally, there remains the issue of time poverty. Women, and adolescent girls, particularly in the MENA region, disproportionately shoulder the burden of unpaid care and domestic work.[25] This leads to a phenomenon called 'time poverty', defined as a situation where a certain person's time use is inflexible and determined by external factors, consumed by non-remunerative and non-productive tasks, perpetuating their absence from decision-making or governance structures and raising the opportunity costs for other profitable pursuits. This phenomenon of time poverty could be exacerbated by additional care work necessary when family members develop health effects of toxic chemicals and waste exposure. Health outcomes resulting out of unsafe sanitation practices, wastewater and sludge mismanagement, and nutrient pollutants or chemicals can have ripple effects by creating income shocks among poorer groups, particularly those that lack health equity and access. Vulnerable groups – particularly women in urban poor demographics and rural communities – often lack stable sources of income (if at all – labour force participation rates among men and women reveal gender gaps and concomitant gender wage gaps in the Mediterranean, particularly the MENA countries), and this lowers access to healthcare, when insurance or free health provisions are not widely available. Lack of economic capital also lessens the decision-making and bargaining power of individuals within the household – where men (often engaged in direct economic activities in the breadwinning roles) may prioritize other necessities.

The following data profiles, keeping in context the gamut of issues outlined in Table I, thus borrow from UNDP's Human Development Index (HDI), Gender Inequality Index (GII), and Gender Development Index (GDI). Additionally, they refer to the Global Gender Gap Index (GGGI) (WEF) and compiles

[24] See *Wastewater and Jobs: The Decent Work approach to reducing untreated wastewater* (Working Paper no. 314). International Labour Organization (ILO). (2017)
[25] *Beyond Scarcity: Water Security in the Middle East and North Africa*. World Bank. (2018)

national-level poverty statistics (conducted by national authorities of the nine countries, as well as the World Bank, in some cases), labour force participation rates and status (primarily from ILO data), and traces the rural-urban dichotomy. These indices have differing methodologies, and are being employed, at the outset, as indicative (and *not* conclusive) measures of current levels of development, gender equality, and poverty and labor force participation.

As Booysen's research[26] shows, composite indices present both challenges and advantages. It should be noted that numerous fallacies have been identified in the methodologies employed in composite indexing. These indices are mainly quantitative, and present empirical and aggregate measures of complex development phenomena, making values apparently objective, at the cost of subjective nuances. Yet, these also remain invaluable as useful supplements to income-based development indicators, understanding relative degrees of development, simplifying complex measurement constructs as well as providing access to non-technical audiences. To balance this dichotomy, ranks should be given less precedence in certain indices and relevance notes have been included to contextualize the results.

TABLE II: HUMAN DEVELOPMENT INDEX (HDI)[27]
(out of 188 countries – United Nations Development Program – UNDP, 2018)

Defining the HDI: This index measures and combines three basic dimensions of human development (long and healthy life, knowledge and decent standard of living) and provides an overall socioeconomic landscape of a country.
Relevance of the HDI: Since socioeconomic capital and security are crucial determinants of the capacities to adapt towards pollution risks, health hazards, loss of coastal livelihoods due to ecosystem goods and service depletion, marine and environmental degradation, this index indicates how poised each country may be to consider and invest in different alternatives such as environment-friendly chemicals, resource management, resilience, adaptation and mitigation options.
Indicative, not conclusive: In line with Booysen's argument, the HDI should be treated as indicative, not conclusive. It provides an overview of relative degree of development in a particular country but remains a 'synthetic indicator'. Recent research has shown the need to supplement the HDI with other indicators associated with economic and social cohesion, sound development strategies, and sustainability in growth models.[28]

Country	Rank	RELEVANCE
Egypt	115th	With 'medium human development', Egypt's economic readiness towards investing in containing nutrient pollutants and improving wastewater and sludge management infrastructure might be limited, wherein the government may prioritize other pressing developmental pursuits.[29] With an unpredictable political climate, and entrenched gender inequality, environmental services and social co-benefits may not be equitably shared. However, recent collaborative efforts between the government, international finance institutions and the private sector led to the established of the New Cairo Wastewater Treatment Plant, which is expected to benefit over three million people and improve public health.[30]

[26] Booysen, F. "An Overview and Evaluation of Composite Indices of Development" in *Social Indicators Research,* (Vol. 59 No. 2). (2002)
[27] UNDP. (2018)
[28] Bilbao-Ubillos, J. "The Limits of *Human Development Index"* in *Sustainable Development,* (Vol. 21 No. 6). (2011)
[29] *Inequalities, Uprisings and Conflicts in the Arab World. MENA Monitor.* World Bank. (2015)
[30] "Wastewater: From Waste to Resource: The Case of New Cairo, Egypt" in *Water Global Practice* publications. World Bank. (2018)

Country	Rank	RELEVANCE
Lebanon	80th	With 'high human development', Lebanon's capacity to reduce pollutants and improve water provision, wastewater infrastructure and sanitation is pegged well. However, due to high concentration of income and wealth in the country[31] and the spillover effects of the Syrian civil war, environmental services and social co-benefits may not be equitably shared. A World Bank report finds that despite high per water capita water endowment as well as relatively high level of income, Lebanon is using more than two-thirds of its water resources, as well as grappling with an inadequate water supply network.[32]
Tunisia	95th	With 'high human development', Tunisia's capacity to reduce pollutants and improve water provision, wastewater infrastructure and sanitation is pegged well. However, due to concentration of income and wealth in the country[33], high unemployment rates (particularly, youth) and economic unrest challenging political stability, environmental services and social co-benefits may not be equitably shared. Accumulated deficits, finds a World Bank study, are the leading cause for low service delivery in sanitation sector in Tunisia.[34]

TABLE III: GENDER INEQUALITY INDEX (GII)[35]

(out of 159 countries – UNDP, 2018)

Defining the GII: This index, showing inequality in achievement between men and women in three aspects (reproductive health, empowerment and labor market), provides a useful gender baseline in terms of health equity, economic capital and financial access, speaking to the gender opportunities of men and women in the countries. This baseline has been elaborated upon using existing gender studies literature on each country.

Relevance of the GII: This index provides a primary understanding of the different levels of achievements on basic development indicators between men and women. This displays useful features towards the gender status quo hypotheses, which could then be derived in the context of this project.

Indicative, not conclusive: In line with Booysen's argument, the GII should be treated as indicative, not conclusive. Pernmayer finds that the functional form of the index could be unclear, particularly the inclusion of indicators of relative performance of women vis-à-vis men, along with absolute women-specific indicators.[36]

Country	Rank	RELEVANCE
Egypt	101st	Political, social and economic capitals are not equitably distributed among Egyptian men and women. Without access to these vital resources, the risks identified by CP 1.2 will primarily burden those at the lower echelons of society. Despite improvement of young women's education levels in recent times (Egypt's rank improved by 34 spots in the latest GII quoted here), the workforce participation and retention rates remain

[31] Assouad, L. "Rethinking the Lebanese Economic Miracle". WID. (2017)
[32] *Lebanon: Country Water Sector Assistance Strategy (2012 – 2016).* World Bank. (2012)
[33] *Tunisia: Economic Outlook.*World Bank. (2018)
[34] *Tunisia: Water and Sanitation Strategy.* World Bank. (2009)
[35] UNDP. (2018)
[36] Pernmayer, I. "A Critical Assessment of the UNDP's Gender Inequality Index" in *Feminist Economics,* (Vol. 19 No. 2). (2013)

Country	Rank	RELEVANCE
		unperturbed, signaling a stagnated job market and scarce employment opportunities.[37] Egypt also faces some particular gender-specific barriers, such as FGM and sexual harassment, arising out of sexual inequality between men and women in the country.
Lebanon	85th	Lebanese women face the least gender disparity in the Arab world with their male counterparts. Despite this, discriminatory social codes, particularly the focus on intersectional civil and family laws, continue to impede women's empowerment.[38] Although the gender gaps at higher levels of education are reversing, women continue to face entry barriers to the labor market as well as time poverty due to the predominance of unpaid care work.
Tunisia	63rd	In Tunisia, traditional social codes affect women's empowerment. Since labor force participation disparity is thoroughly pronounced, women lag behind on economic capital needed to combat pollution hazards and chemical health risks. This also makes them dependent on the patrilocal structure of Tunisian society. However, the January 2011 uprisings signaled that women were entering the public space, leveraging opportunities for their economic empowerment,[39] although it remains to be seen if the force of this societal shift can keep pace with the loss of environmental degradation, coastal pollution, marine litter and decreasing ecosystems goods and services.

TABLE IV: GENDER DEVELOPMENT INDEX (GDI)[40]
(grouped in 5 categories, 1: high equality to 5: low equality – UNDP, 2018)
& GLOBAL GENDER GAP INDEX (GGI)[41]
(out of 144 countries – World Economic Forum – WEF, 2017)

Defining the GDI & GGI: The GDI (UNDP) index shows the ratio of female to male HDI values. GDI expresses values in deviation, hence, in order to facilitate understanding GDI grouped categories have been used (as grouped by UNDP) to show the absolute deviation from gender parity in HDI values. This further reiterates the results of the HDI and GII (also by UNDP), and shows the real gender gap in human development achievements.
The GGI (WEF) benchmarks 144 countries on their progress towards gender parity on four thematic dimensions – economic participation and opportunity, educational attainment, health and survival, and political empowerment. The Index benchmarks national gender gaps on economic, political, education- and health-based criteria, and provides country rankings that allow for effective comparisons across regions and income groups, over time.
Relevance of the GDI & GII: Since the GDI and GGI use different methodologies, and are conducted by different agencies, this report does not suggest a causality between the two indices. However, a correlation is undeniable, and both indices pick up similar rates of gender disparity in the CP 1.2 countries.
Indicative, not conclusive: In line with Booysen's argument, the GDI & GII should be treated as indicative, not conclusive. Geake Dijkstra and Hanmer find that although gender-related development indices have increased attention towards 'feminization of poverty and underdevelopment', more robust data needs and indicators are required to create aggregate

[37] *Egypt: Country Gender Assessment.* World Bank. (2010)
[38] *Lebanon: Country Gender Assessment.* European Union. (2015)
[39] *Gender in MENA Projects: Tunisia*. World Bank. (2011)
[40] UNDP. (2018)
[41] WEF. (2017)

indices that are sensitive to contemporary trends in gendered privation, particularly with the categorization of 'women'.[42]

Country	GDI – Group	GGI – Rank	Relevance
Egypt	Low equality	134th	The gender gap in Egypt is entrenched, requiring tangible efforts to address and lessen gendered disparities in the country.
Lebanon	Low equality	137th	The gender gap in Lebanon is entrenched, requiring tangible efforts to address and lessen gendered disparities in the country.
Tunisia	Medium-low equality	117th	Tunisia shows the greatest disparity in development and gender equity rankings. Despite being categorized as a country with high HDI, an entrenched gender gap is revealed.

TABLE V: SOCIOECONOMIC FACTORS

Note: This table is compiled from various sources, and determines poverty levels (according to USAID income grouping), rural-urban divide and labor force participation parity in the CP 1.2 countries.

Poverty Level: Pollution and concomitant health hazards are threat multipliers, and often their impacts combine with poverty– hence this is an important indicator, corroborating HDI ranking. To illustrate this, the Multidimensional Poverty Index has been used. OPHI and UNDP calculate the MPI, for measuring acute poverty in developing countries. It complements traditional income-based poverty measures by capturing the severe deprivations with regard to different indicators: education, health, and living standards. The index not only identifies those living in multidimensional poverty, but the extent (or intensity) of their poverty. The MPI can help the effective allocation of resources by making possible the targeting of those with the greatest intensity of poverty; it can help address some SDGs strategically and monitor impacts of policy intervention.[43]

Rural-Urban Divide: Health hazards arising out of low service delivery in the sanitation sector, nutrient pollution and groundwater contamination, and lack of wastewater infrastructure often takes different forms in rural and urban areas. However, lack of development and investment in rural areas and urban poor neighborhoods often impedes adaptive capacities of vulnerable demographics, who also derive their livelihoods from managed and natural resources (that may become contaminated), agriculture, or informal sectors where exposure may be high. Additionally, health equity, as a general trend, is harder to achieve for rural and urban poor populaces, who may not be insured or may be unable to access proper health facilities.

Labor force participation parity (% of working age population active)[44]: In the Mediterranean, one of the prime sectors facing gender disparity is labor force participation parity. The region is plagued with high unemployment rates[45] (12.5% average), and this phenomenon remains a gendered one: women and youth are less likely to be employed than men, as a general trend. Additionally, the existing gap in labor force participation indicates

[42] Geske Dijkstra, A. & Hanmer, L. C. "Measuring Socio-Economic Gender Inequality: Towards an Alternative to the UNDP Gender Index" in *Feminist Economics,* (Vol. 6, No. 2). (2000)
[43] See UNDP's Technical Notes (2016) for more.
[44] *World Employment and Social Outlook: Trends for Women.* ILO. (2017)
[45] "Unemployment: The Mediterranean Effect", World Bank. (2012)

that women possess less economic capital, and can often be limited by gendered (mostly unpaid care work) roles. This directly correlates to lessened participation in coastal economies and scarce or unstable livelihoods; lack of decision-making power both within the household (especially health decisions) and larger policy frameworks such as wastewater and sanitation policies; and, greater exposure to repercussions of marine environmental degradation, water stress and potential health hazards nutrient pollution and ground water contamination (which often acts as a threat multiplier, in this context.

Country	Poverty Indices	Rural-Urban	Labor Force Participation *(The gender gap is calculated as the difference between women's and men's labor force participation rates – simply, the number of working age men and women employed in a country, ILO 2016)*
Egypt	**27.8%** below the **National Poverty Line.**[46] Although extreme poverty has been virtually eradicated, Egypt is yet to turnaround the effects of the 2011 Arab Springs on its economy, leaving a third of Egyptians in precarious poverty. Particularly, high inflation over 2015-17 has lowered the purchasing power of households.[47]	Regional disparities continue to be a part of the country's landscape, with upper rural Egypt showing poverty rates three times higher than metropolitan Egypt.[48]	**22.8% female** **76.1% male** Female labor force participation is low in Egypt, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world.[49] This is a significant loss as including women and enabling conditions to retain them in the workforce can boost the growth rate of the Egyptian economy.[50] In recent times, Egypt's performance on health and education indicators is improving, and this could change labor dynamics.
Lebanon	**30%** below the **Middle-Income-Country Poverty Line.**[51]	Lebanon's population is 87% urban, concentrated particularly in Beirut. The dynamics of urban poor show a	**23.5% female** **70.3% male**

[46] *Egypt: Economic Outlook.*World Bank. (2018)
[47] *Ibid.*
[48] *Ibid.*
[49] ILO. *Women in Business and Law.* (2014)
[50] The Economic Research Forum (ERF), a regional forum on economic research in Arab countries, Turkey and Iran finds that encouraging the participation of women in the labor force, particularly the 'married women' demographic could usher in rapid growth for the Egyptian economy. See here.
[51] *Lebanon: Rapid Poverty Assessment.* UNDP. (2016)

	Although GDP increase in Lebanon remains steady, the country faces the economic and social impact of the Syrian crisis. With the influx of 1.5 million refugees, Lebanon's public finances, service delivery, and the environment have been strained, increasing poverty headcount and unemployment.[52]	pan-Mediterranean attribute: job creation is low, youth unemployment is high, and the vulnerable groups are trapped within the informal sector. In the rural areas, different causes entrench poverty: social protection and government service delivery are limited in these remote and mountainous regions.	Female labor force participation is low in Lebanon, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world. This is a significant loss as including women and enabling conditions to retain them in the workforce can potentially boost the growth rate of the Lebanese economy.[53] Recent studies, however, show that Lebanon is leading the growth rate of female participation in labor force in the MENA region.[54]
Tunisia	**24.7**% below the **National Poverty Line.**[55] Poverty rates in Tunisia have seen a significant increase, from 15.5% (2010) to 24.7% (2018). Income disparities are high: the top 20% of Tunisians earn 46% of the national income, while the bottom 20% earn only 5.9%.[56] Civil unrest since the 2011 has increased poverty and unemployment and discouraged entrepreneurs and private sector actors.	Rural areas in Tunisia remain marginalized and underprivileged, leading to high rates of rural to urban migration, particularly towards Greater Tunis and its agglomeration economies.[57]	**25.1% female** **71.3% male** Female labor force participation is low in Tunisia, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world.[58] Like Morocco, Tunisia faces crucial demographic transition in the coming years, yet barriers to the job market remain high. Young women are particularly vulnerable and face exclusion from economic activities.[59]

[52] *Lebanon: Economic Outlook.* World Bank. (2017)
[53] Find more on Lebanon on the ERF website.
[54] See this AN-NAHAR coverage.
[55] "Poverty has fallen in the Maghreb, but inequality persists". World Bank. (2016)
[56] *Tunisia: Economic Outlook.* World Bank. (2018)
[57] Amara, M., Jemmali, H. & Ayadi, M. "Rural-Urban Migration and Income Disparity in Tunisia". *Economic Research Forum.* (2017)
[58] ILO. *Women in Business and Law.* (2014)
[59] This ILO report expounds on the factors affecting employment and gender in Tunisia.

6. Gender Entry Points for CP 1.2 Components

Building on Table I, which showed why gender and socioeconomic conditions require mainstreaming in actions on nutrient pollution investment, wastewater and sanitation service delivery, Table V provides a break down of the project components and posits gender mainstreaming considerations for each. These entry points have been suggested after reviewing the existing literature and data, and have the potential to shift the needle on the success garnered through the project objectives – from optimal to inclusive.

TABLE V: COMPONENT-SPECIFIC GENDER CONSIDERATIONS FOR CP 1.2

COMPONENT	GENDER MAINSTREAMING CONSIDERATIONS
1. National actions: nutrient reduction investments in coastal hotspots (Egypt, Lebanon, and Tunisia)	BASELINE: In Egypt, as the World Bank finds, despite spending over LE 18 billion, and 4% of the annual recurrent budget on water supply and the sanitation sector alone, the damage costs of poor water quality are estimated at 1.8% of the national GDP.[60] Although organic and nutrient pollution primarily comes for rural areas, an urban-biased investment system has led to the creation of a unsustainable institutional structure of water and sanitation, plagued by poor service delivery.[61] In Lebanon, similarly, the World Bank finds that an expensive but poorly sequenced investment program and absence of a viable business model for wastewater have left 92% of Lebanon's sewage running untreated into water courses and the sea.[62] For Tunisia, saturation among the wastewater treatment plants seems to be a growing concern, as complex pollutants are increasingly attacking a smaller receiving and more vulnerable area.[63] Despite continued attention on these sectoral issues, and to some extent on gender and sanitation service delivery[64], sociological perspectives on the require strengthening. Particularly, rural and urban divides, socioeconomic conditions and poverty, as crosscutting issues for nutrient pollution and wastewater have to be highlighted within policy and institutional scopes. ALTERNATIVE SCENARIO: CP 1.2 can provide an in-depth and pioneering understanding of how men and women fare differently with the above issues in site-specific contexts, where subgroups (such as the urban poor or rural social groups) lie on the capacity spectrum, and which gender constraints and priorities could to be addressed. Tentatively, it will seek to address these issues through the entry point: *a.* Vulnerable and marginalized demographics are often limited by the exclusion of their needs and perspectives from water and sanitation management strategies, the lack of decision-making power regarding industrial developments near their habitats, and socioeconomic and political influence in the public sphere. *b.* Addressing the lacuna in the literature can also bolster updating of current mechanisms as well as future efforts in the region, by providing data-driven and normative information, and priming regional and national agencies to consider these parameters in the wastewater- and sanitation-related policy and action.

[60] *Egypt: Operational Framework for Integrated Rural Sanitation Service Delivery.* World Bank. (2005)
[61] *Ibid.*
[62] *Lebanon: Country Water Sector Assistance Strategy (2012 – 2016).* World Bank. (2012)
[63] *Tunisia: Water and Sanitation Strategy.* World Bank. (2009)
[64] In 2010, access to water and sanitation was officially designated as a human right by the UN, and is a recognized SDG (SDG 6) for the UN's Agenda 2030.

	c. Gender-responsive information and gender-disaggregated data, deriving from primary field sources (from small-scale surveys in selected target sites) and secondary sources, can help in fine-tuning existent policies, establish exposure scenarios for different genders and age-groups, formulate new regulations, streamline national and local action, and create a regional effort to address common issues to support vulnerable demographics. Involving vulnerable and marginalized groups, after identification through field surveys and consultations, in relevant wastewater policies and sanitation service delivery as stakeholders can increase the shelf life and ownership of the project outcomes. An illustrative example is the World Bank's recent citizen engagement efforts within rural sanitation service delivery program design in the Beheriya, Dakahlia and Sharkiya governorates in Egypt, which led to high levels of buy-in from the government and trust from local stakeholders while delivering on access outputs.[65]
PROJECT ACTIVITIES[66]	Outcome 1: *Commitments to invest in WWTPs upgrading and reusing of treated wastewater, and/or remediation of former industrial sires, and/or depollution of catchment area secured* ✓ A. Egypt: Investments in the depollution of the waters in drains and canals in the Nile Delta and the Mediterranean Sea through investments in wastewater collection and treatment ✓ B. Lebanon: Investment in wastewater collection systems ✓ C. Tunisia: Investments for the upgrading and/or extension of 10 WWTPs to improve the quality of Tunisian surface water, groundwater, and coastal waters Outputs: ✓ Preparatory Studies (A.1, B.1 and C.1); Targeted Surveys and Studies (A.3 and B.4): These studies combined with the targeted surveys and studies (A.3 and B.4) can provide relevant information on site-specific contexts on socioeconomic and gender status quos. This will help in developing strategic policy and infrastructure investment plans with a localized scope. ✓ Awareness (A.4): As mentioned previously, the dearth of knowledge and information on gender and social factors in the nutrient pollution, wastewater and sanitation domains hasve prevented effective policymaking and concerted efforts from governments. Thus, awareness-raising though workshops, can specifically address this. Additionally, the awareness-raising activity could contribute better information access for vulnerable and susceptible groups. Women's information networks are often smaller than men's, presenting fewer opportunities for learning about health hazards, pollution-risks, and mitigating actions. Spreading the information and data collected through accessible and effective delivery channels could aid in the uptake of preventive care or more sustainable practices – women are likely to address the needs of their families, particularly children, and bring changes in consumption patterns.[67] ✓ Capacity Building (A.2, B.2 & C.2): Complementing the awareness-raising efforts, capacity building can also be a strong gender-mainstreaming action point. CSOs, NGOs, labour rights groups, women's organizations and

[65] "Integrating Citizen Engagement in Program Design: Egypt's Sustainable Rural Sanitation Services Program Experience" in *MENA Knowledge and Learning Series.* World Bank. (2018)

[66] Refer to Annex X: Project Results Framework, p.x – x for detailed activity description. For the purposes of this Assessment, these activities are suggestive and will be fleshed out in alignment with project progression in later phases of the cycle.

[67] *Women and Chemicals: The Impact of Hazardous Chemicals on Women*. p. 25. Women in Europe for a Common Future & UN Environment. (2015)

	grassroots groups could be trained on the finer nuances of the socioeconomic factors determining the extent of pollution-risks and chemical hazards. They can, then, be involved to employ a bottom-up approach to include the identified stakeholders, as well as to generate inclusive policies. As the World Bank intervention in Egypt showed, such an intervention design has greater effectiveness and also generates citizen's trust as well as government buy-in. ✓ Technical Assistance: Gender-balanced technical groups have to be established for the project activities. This is because vulnerable groups are often excluded from, and limited by their lack of representation and agency in such decision-making bodies.
2. Regional actions: harmonization of standards	BASELINE: Building on the baseline presented for the earlier project component, it can be concluded that there exists a lacuna in the regional efforts towards addressing these issues. This lacuna has, in fact, resulted in the paucity of concerted and coordinated effort to also incorporate a gender-responsive perspective, and also prevented the generation of Mediterranean-specific, gender-disaggregated information and data gaps, eclipsing the extent of the problem. ALTERNATIVE SCENARIO: CP 1.2 will perform a unique function in developing common environmental standards and implementation guidelines with regards to desalination, aquaculture, and wastewater and sludge management, while also incorporating the prerogative of the Mediterranean Action Plan and the Barcelona Convention. In doing so, it can affect regional status quo of gender equality in the following ways: a. Mainstreaming gender across the northern African countries on these issues by providing a gender-informed regional metric that addresses the issues from different levels: (i) welfare: material welfare and exposure determined through the basic provision of services such as sanitation and potable water access; (ii) access: policy and management strategy negotiation roles and being able to incorporate inputs across stakeholders; (iii) conscientisation: building understanding of the differences between sex and gender roles, and how these affect outcomes; (iv) participation: encouraging grassroots involvement and engagement, ensuring mutual trust and ownership of both interventions and their outcomes. b. Providing a script for future interventions and policies through the successes and lessons learnt for the project, while also creating a foundation for regional engagement through pan-beneficiary countries standardization of protocols and policymaking.
PROJECT ACTIVITIES	Outcome 2: *Common environmental standards and implementation guidelines with regards to desalination, aquaculture, and wastewater and sludge management developed for adoption in the framework of MAP/Barcelona convention* Outputs: ✓ Regional Standards (2.1 – 2.4): Regional standards for wastewater, sludge management, aquaculture and desalination could be made gender-responsive, building on the first component – wherein a participatory and informed approach dedicated to bring the marginalized and vulnerable to the table can

	lead to effective and inclusive policies, and provide a regional metric for future interventions on similar issues. ✓ Governance Tools: Using the above steps, CP 1.2 can pioneer gender-responsive project steering and coordination, particularly ensuring that women are not only represented, but can also undertake meaningful and responsible roles in pollutants, sludge and wastewater management in the beneficiary countries.

7. Policy Environment, Legal Tools and Institutions

This section takes stock of the policy environment and legal frameworks available for gender-responsive actions in the beneficiary countries, as well as a list of potential institutions towards collaboration on gender mainstreaming during the project cycle. Legal tools and enabling policies are crucial in ensuring gender inequality can be addressed through tangible and formal procedures. Additionally, the inclusion of local and national gender partners engenders capacity and technical knowledge towards future gender efforts while establishing ownership of the project and the change narrative being implemented.

TABLE VI: POLICY ENVIRONMENT, LEGAL TOOLS & INSTITUTIONS

This table, compiled from various sources, particularly UN Women and the Equal Futures Partnership, takes stock of international conventions, national laws and policies, and country-level stakeholders that can aid CP 1.2 in gender mainstreaming and narrowing socioeconomic gaps.

Country	Policy Tools, Legal Instruments, Institutions	Provisions
Egypt	1981 – CEDAW	Egypt signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1981.
	2014 – Constitution of the Government of Egypt 1937 – Criminal Code of the Government of Egypt	The two main legislations protecting and supporting women are the Egyptian Constitution of 2014 (Articles 11, 53 and 214) and the Criminal Code of 1937. Crimes against women in Egypt are divided in two groups: misdemeanors and felonies. Misdemeanors, such as catcalling, are usually punished by fines with shortened trials. Felonies, like FGM and rape, are permanent criminal offences, punished by longer jail time.
	Integrated Gender Program (UNDP, UN Women and UNFPA)	The integrated program is helping to address multi-faceted challenges faced by women and young girl through three pillars of social, legal and economic

		empowerment. A similar EBRD project for the MENA region is active in Egypt as well.
	Institutions	National Council for Women
Lebanon	1997 – CEDAW	Lebanon signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in1997.
	1936 – Constitution of the Government of Lebanon	The Lebanese legal system is primarily based on French Civil Code and Egyptian legal systems. Whilst there is no unified civil law in Lebanon, the Lebanese Constitution promulgated in 1926 articulates the principle of equality among all citizens (Articles 7 and 12).
	Women's International League for Peace and Feminism (WILPF) – ABAAD Resource Centre of Gender Equality	WILPF and ABAAD are leading national consultations to develop the first National Action Plan towards gender equality currently. The EU wrapped up its 'Gender Equity and Empowerment of Women in Lebanon' in early 2017, which has laid groundwork towards the adoption of a quota system for women in the country.
	Institutions	National Commission for Lebanese Women
Tunisia	1985 – CEDAW	Tunisia signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1985. However, in April 2014, Tunisia officially lifted key reservations on the CEDAW.
	2014 – Constitution of the Government of Tunisia	The new constitution adopted in January 2014 includes strong protection for women's rights: Article 21 confirms equality of rights and duties; Article 34 guarantees women's representation in all elected bodies; and, Article 46 ensures protection of human rights.
	2015 - 2018 – Gender Equality Promotion Program in Tunisia (EU-Tunisia)	The financing agreement of the EU-Tunisia program was signed in April 2015. It aims to contribute to achieving gender equality in Tunisia by reducing inequalities at national, regional and local levels.

	Institutions	The National Council of Peers for Equality and Equal Opportunities between Women and Men Ministry of Women, Family and Children

8. Conclusion

This Gender Assessment has identified and expounded upon both explicit and implicit gender and socioeconomic issues that could be addressed through the project outcomes. The findings from the Assessment also form the basis for the Gender Action Plan (Section 9), which will specifically address these by mainstreaming actionable points in the Child Project 1.2 Results Framework, corresponding activities, indicators, timelines, responsible parties, and budget allocations. As gender equality gains priority in the GEF's, UN Environment's and the EIB Group's portfolio, this project partakes in the international conversation on gender mainstreaming and gender-responsive planning in nutrient pollution mitigation, sanitation and wastewater policies, water stress and security, and sludge hazards. If implemented effectively, this project has the potential to become a good practice gender mainstreaming guide to future interventions on the gender and waste domain, and on pollution risk reduction and health hazards with socioeconomic considerations, in the three beneficiary countries (Egypt, Lebanon, and Tunisia), regionally (the Mediterranean MENA region), as well as globally.

9. Gender Action Plan

CHILD PROJECT 1.2 OF THE MEDITERRANEAN SEA PROGRAMME: ENHANCING ENVIRONMENTAL SECURITY	
Programme Objective	IMPROVING WATER SECURITY, HUMAN AND ECOSYSTEMS HEALTH, AND CLIMATE RESILIENCE IN COASTAL HOTSPOTS THROUGH NATIONAL AND REGIONAL ACTION

COMPONENT 1: NATIONAL ACTIONS: NUTRIENT REDUCTION INVESTMENTS IN COASTAL HOTSPOTS

OUTCOME: Commitments to invest in WWTPs upgrading and reusing of treated wastewater, and/or remediation of former industrial sites, and/or depollution of catchment area secured

Outputs		Gender Baseline	Alternative Scenario	Gender Action Points	Means of Verification (Evaluation of Gender Mainstreaming Progress)
A: EGYPT **Investments in the depollution of the waters in drains and canals in the Nile Delta and the Mediterranean Sea through investments in wastewater collection and treatment**					
A.1	Preparatory Studies	• Knowledge and data gaps in understanding socioeconomic and gender dynamics, in the context of nutrient pollutants, wastewater and sanitation service delivery in Egypt	o Generate relevant and reliable information and data regarding gender-specific and social factor-specific exposure risks, access issues and service delivery conditions in site-specific contexts	➢ Engage short-term **Gender / Social Development Consultant** to **design social factors and gender-focused survey questionnaire** for selected sites, with a strong participatory and inclusive focus **($30,000 inclusive for potential field visit)**	✓ **Key Informant Interviews** with local target groups on gender sensitivity, exposure patterns, access to sanitation ✓ **Focus Group Discussions** with NGOs working on gender rights, local gender equality lobbying groups, trade unions, workers' associations, decentralised government bodies to identify needs and interests of each demographic, as well as to map gender relations in site-specific contexts
A.2	Capacity-building activities to enable the national water	• Wastewater infrastructure and sanitation sector decision-making often exclude women, as	o Ensure gender equitable-participation and train local stakeholders, especially	➢ Make **capacity-building workshops and training accessible, gender-equitable, with provisioning for a gender-responsive work**	✓ **Minutes and reports** from workshops and training showing gender distribution

	and sanitation companies to better operate and maintain wastewater collection and treatment systems	demonstrated by the ILO report, leading to the exclusion of their needs and perspectives	women, to participate in these structures	**environment** that incorporates the particular needs of women	✓ **Gender Consultant's report** on specific gender mainstreaming actions taken in the capacity-building activities
A.3	Targeted surveys and studies to enable informed decision-making and enhance the sustainability of the investments and their beneficial impacts	- A1 -	o Pilot small-scale gender and social dynamics study in suitable target site to pioneer gender-responsive targeted survey	➢ **Gender / Social Development Consultant** to design social survey, share results and communicate importance of these types of study	✓ **Gender-responsive study reported** within the broader targeted studies and surveys report ✓ **Policy directives culled from the survey**
A.4	Public awareness on the benefits of proper wastewater disposal	• Public awareness-raising on these issues are virtually absent, leading to misconceptions and continuation of unsustainable practices, that adversely affect women – who are particularly exposed to harmful water because of domestic duties	o Mainstream demographic and gender information in public awareness campaigns to garner consensus on the need to consider gender perspectives in these sectors	➢ **Gender / Social Development Consultant** to assist in the design of public awareness campaigns	✓ **Content** of campaigns ✓ **Acceptance/approval ratings** on gender issues from the general public
A.5				➢ **Gender / Social Development Consultant**	

	Gender equality mainstreamed in the wastewater sector	• Currently, the consensus and research on gender issues relating to these sectors are scarce, as demonstrated in the Assessment	o Incorporate gender-responsive action throughout the project portfolio to ensure a holistic and inclusive approach		✓ **Gender-responsive monitoring within the overall Monitoring and Evaluation mechanism ($5000 earmarked in the overall budget)**
B: LEBANON **Investments in wastewater collection systems**					
B.1	Preparatory Studies	• Knowledge and data gaps in understanding socioeconomic and gender dynamics, in the context of nutrient pollutants, wastewater and sanitation service delivery in Lebanon	o Generate relevant and reliable information and data regarding gender-specific and social factor-specific exposure risks, access issues and service delivery conditions in site-specific contexts	➢ Engage short-term **Gender / Social Development Consultant** to **design social factors and gender-focused survey questionnaire** for selected sites, with a strong participatory and inclusive focus **($30,000 inclusive for potential field visit)**	✓ **Key Informant Interviews** with local target groups on gender sensitivity, exposure patterns, access to sanitation ✓ **Focus Group Discussions** with NGOs working on gender rights, local gender equality lobbying groups, trade unions, workers' associations, decentralised government bodies to identify needs and interests of each demographic, as well as to map gender relations in site-specific contexts
B.2	Responsibilities defined and operation procedures developed and submitted for adoption by relevant authorities	• Wastewater infrastructure and sanitation sector decision-making often exclude women, as demonstrated by the ILO report, leading to the exclusion of their needs and perspectives	o Ensure gender equitable-participation and train local stakeholders, especially women, to participate in these structures	➢ Make **capacity-building workshops and training accessible, gender-equitable, with provisioning for a gender-responsive work environment** that incorporates the particular needs of women	✓ **Minutes and reports** from workshops and training showing gender distribution ✓ **Gender Consultant's report** on specific gender mainstreaming actions taken in the capacity-building activities
B.3	Monitoring and Evaluation Capacities of MOEWs and EWs improved		o	➢	✓

B.4	Surveys and studies to enable informed decision-making and enhance the sustainability of the investment and beneficial impacts	• The existent knowledge and information gap on these issues have led to the continuance of inefficient policies, urban-biased service delivery and unsustainability of efforts	o Mainstream demographic and gender information within the policies by conducting one small-scale gender and social dynamics study in suitable target site to pioneer gender-responsive targeted survey and inform policy-making	➢ **Gender / Social Development Consultant** to assist in the design of public awareness campaigns	✓ **Content** of campaigns ✓ **Acceptance/approval ratings** on gender issues from the general public
B.5	Gender equality mainstreamed in the wastewater ,sector	• Currently, the consensus and research on gender issues relating to these sectors are scarce, as demonstrated in the Assessment	o Incorporate gender-responsive action throughout the project portfolio to ensure a holistic and inclusive approach	➢ **Gender / Social Development Consultant**	✓ **Gender-responsive monitoring within the overall Monitoring and Evaluation mechanism ($5000 earmarked in the overall budget)**
C: TUNISIA **Investments for the upgrading and/or extension of 10 WWTPs to improve the quality of Tunisian surface water, groundwater, and coastal waters**					
C.1	Preparatory Studies	• Knowledge and data gaps in understanding socioeconomic and gender dynamics, in the context of nutrient pollutants, wastewater and sanitation service delivery in Tunisia	o Generate relevant and reliable information and data regarding gender-specific and social factor-specific exposure risks, access issues and service delivery conditions in site-specific contexts	➢ Engage short-term **Gender / Social Development Consultant** to **design social factors and gender-focused survey questionnaire** for selected sites, with a strong participatory and inclusive focus **($30,000 inclusive for potential field visit)**	✓ **Key Informant Interviews** with local target groups on gender sensitivity, exposure patterns, access to sanitation ✓ **Focus Group Discussions** with NGOs working on gender rights, local gender equality lobbying groups, trade unions, workers' associations, decentralised government bodies to identify needs and interests of each demographic, as well as to map gender relations in site-specific contexts
C.2	Capacity enhancement of	• Wastewater infrastructure and	o Ensure gender equitable-participation	➢ Make **capacity-building workshops and training**	✓ **Minutes and reports** from workshops and training showing gender distribution

	ONAS to operate and maintain wastewater systems	sanitation sector decision-making often exclude women, as demonstrated by the ILO report, leading to the exclusion of their needs and perspectives	and train local stakeholders, especially women, to participate in these structures	**accessible, gender-equitable, with provisioning for a gender-responsive work environment** that incorporates the particular needs of women	✓ **Gender Consultant's report** on specific gender mainstreaming actions taken in the capacity-building activities
C.3	Wastewater Master Plans for the targeted regions are updated	• -do-	o -do-	➢ -do-	✓ -do-

COMPONENT 2: REGIONAL ACTIONS: HARMONIZATION OF STANDARDS

OUTCOME: Common environmental standards and implementation guidelines with regards to desalination, aquaculture, and wastewater and sludge management developed for adoption in the framework of MAP/Barcelona Convention

Outputs		Gender Baseline	Alternative Scenario	Gender Action Points	Means of Verification (Evaluation of Gender Mainstreaming Progress)
2.1	Regional standards in wastewater management; regional and national measures to implement standards proposed	• There exists a lacuna in the regional efforts towards addressing these issues, resulting in the paucity of concerted and coordinated effort to also incorporate gender-responsive perspectives in	o Formulate strategic, tailored and appropriate regional standards for each issues which mainstream gender concerns, reflecting the findings from the first component	➢ Engage **Gender / Social Development Consultant** to conduct gender consultations within stakeholder engagement plans, research on the three countries and these sectoral issues and collates (and coordinates on) results from Component 1 to formulate gender-	✓ **Gender stakeholder consultations** ✓ **Key Informant Interviews** with local target groups ✓ **Focus Group Discussions** with NGOs and CSOs working on gender rights, local gender equality lobbying groups, trade
2.2	Regional standards on sludge management; regional and national		o Create a regional metric, which will		

2.3 2.4	measures to implement standards proposed Regional standards on desalination; regional and national measures to implement standards proposed Regional standards for reducing pollution from aquaculture; regional and national measures to implement standards proposed	interventions and policymaking • It has also prevented the generation of Mediterranean-specific, gender-disaggregated information and data gaps, eclipsing the extent of the problem.	be both unique and pioneering, that sets long-term gender and socioeconomic goals for these issues, in keeping with international consensus on SDG 6 and the Paris Agreement o Engage local communities, devolved stakeholders and government focal points on the need to develop gender mainstreamed regional standards	responsive regional standards for each issue to be presented within the broader regional protocols ($24,000 inclusive for potential field visit)	unions, workers' associations, decentralised government bodies to identify needs and interests of each demographic, as well as to map gender relations in site-specific contexts ✓ **Gender Consultant's inputs** within broader regional standards developed ✓ **Gender-responsive monitoring within the overall Monitoring and Evaluation mechanism ($5000 earmarked in the overall budget)**

ANNEX P

GEF/UN Environment
"Mediterranean Sea Programme (MedProgramme)
Enhancing Environmental Security"
(2019- 2024)

gef

UN environment
United Nations Environment Programme

Mediterranean Action Plan
Barcelona Convention

The strategy was developed in the framework of the Project Preparation Grant (PPG) of the MedProgramme by Lucilla Minelli, UN Environment/Mediterranean Action Plan (MAP) consultant. June-October 2018

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1. Overview and background

1.1 Purpose

The purpose of the present Knowledge Management (KM) strategy[1] is to offer a structured and integrated approach to leverage and systematically share knowledge assets generated by the Child Projects of the MedProgramme with the intended beneficiaries and audiences. In doing so, the strategy aims to maximize the MedProgramme's impact by: strengthening operational coherence; harnessing synergies and pooling resources, including time; inform policy makers and key stakeholders about the MedProgramme (its activities, needs, outputs, meetings, results, etc.) and of the benefits arising from the Programme interventions. It will also contribute to the objectives of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention), the Minamata Convention on Mercury and the Stockholm Convention on Persistent Organic Pollutants by fostering a broader culture of learning, cooperation and environmental sustainability in the region.

1.2 Context

The present KM strategy is designed to support the implementation of the GEF/UN Environment "Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security" (2019- 2024)[2].The MedProgramme represents the first GEF programmatic multi-focal area initiative in the Mediterranean Sea aiming to operationalize priority actions to reduce major transboundary environmental stresses in its coastal areas while strengthening climate resilience and water security and improving the health and livelihoods of coastal populations. The MedProgramme is implemented in nine beneficiary countries sharing the Mediterranean basin: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia. Its eight Child Projects[3] cut across four different Focal Areas of the Global Environment Facility (International Waters [IW], Biodiversity [BD], Chemicals and Waste [CW], and Climate Change [CC]) and involve a wide spectrum of developmental and societal sectors, ranging from banking institutions, the private sector, governmental and non-governmental bodies, industry, research, media, and various other organizations. It builds on the MedPartnership and ClimVar & ICZM[4] GEF projects which have enriched the knowledge on the Mediterranean environment and unraveled the implications of climate change and variability; strengthened countries' mutual trust, cooperation and common purpose; consolidated the partnership among countries,

[1] The strategy is illustrated in relevant sections of MedProgramme Child Project 4.1. The full document is annexed to individual MedProgramme Child Project documents to provide a harmonized and consistent reference across the entire portfolio of interventions.

[2] GEF Lead Implementing Agency: UN Environment. Other GEF Implementing Agency: European Bank for Reconstruction and Development (EBRD). Leading Executing Agency: UN Environment/MAP. Executing partners: UNESCO International Hydrological Programme (IHP), European Investment Bank (EIB), Global Water Partnership – Mediterranean (GWP-Med), WWF Mediterranean Programme Office (WWF MedPO), IUCN, Priority Actions Programme Regional Activity Centre (PAP/RAC), Plan Bleu Regional Activity Centre (Plan Bleu), Specially Protected Areas Regional Activity Centre (SPA/RAC) and the Sustainable Consumption and Production Regional Activity Centre (SCP/RAC).

[3] At the time of its approval in October 2016, the MedProgramme was comprised of seven Child Projects. Subsequently, a Mediterranean climate change adaptation project was developed by UN Environment/MAP for financing through the Special Climate Change Fund (SCCF). It was agreed by the UN Environment/MAP, UN Environment and the GEF Secretariat that this SCCF project would be managed for all intents and purposes as an additional Child Project of the MedProgramme. Hence the reference to eight Child Projects of the MedProgramme.

[4] More info on MedPartnership, ClimVar and ICZM (Integration of climatic variability and change into national strategies to implement the ICZM Protocol in the Mediterranean) projects: http://www.themedpartnership.org/, https://iwlearn.net/iw-projects/2600 and https://iwlearn.net/iw-projects/3990. Some partners to the MedPartnership developed a series of dedicated websites for their activities. For instance, PAP/RAC activities on MedPartnership can be found at: https://pap-thecoastcentre.org/medpartnership ; https://pap- thecoastcentre.org/climvar/ and https://pap-thecoastcentre.org/projects/

UN bodies, civil society organizations, bilateral donors and the European Union (EU); and tested on the ground the feasibility and effectiveness of technical and policy instruments aimed at addressing major present and future threats to environmental sustainability and climate related impacts.

The Mediterranean countries have worked together with GEF IW support since the late 1990s to set priorities related to national, as well as transboundary environmental concerns (Transboundary diagnostic analysis [TDA] for the Mediterranean Sea[5]) and have jointly agreed on the interventions needed to address these priorities in two Strategic Action Programmes (SAPs): 1) The Strategic Action Programme to Address Pollution from Land-Based Activities (SAP-MED); and 2) the Strategic Action Programme for the Conservation of Biological Diversity in the Mediterranean Region (SAP-BIO).

Following the formal adoption by the Barcelona Convention of the SAP-MED and SAP-BIO (2005 and 2003), the Mediterranean countries translated the SAP priorities into National Action Plans (NAPs), and benefited from international support in moving towards on the ground implementation. The MedPartnership project (2010-2015) supported countries in the initial implementation of the SAPs and of the newly developed Protocol on Integrated Coastal Zone Management (ICZM), which was adopted in 2011.

More recently, the 2015 – 2016 update of the NAPs associated with the SAP-MED has succeeded in creating additional momentum at local, national and regional levels, with a remarkable level of involvement and participation of all stakeholders. In each country, national and local authorities, the industrial sector and Non-governmental Organizations (NGOs) discussed priorities, possible actions and opportunities for investment thus making the NAPs a realistic initiative. These significant achievements, while not yet bringing about measurable changes in the levels of environmental stress or in degradation trends, have however created the indispensable foundation and the enabling conditions for initiating national actions targeting major causes of marine and coastal transboundary degradation. To confront the challenge of implementation, to execute the SAPs and to reinforce implementation of the NAPs thereby achieving concrete and lasting results, are the raisons d'être of MedProgramme.

The Barcelona Convention provides the policy framework under which the MedProgramme will operate and the UN Environment Mediterranean Action Plan (MAP) system will ultimately carry forward the legacy of the outcomes of the MedProgramme's Child Projects, and in particular of its knowledge management mechanisms, approaches and tools. The MAP Regional Activity Centers (RACs) will play a crucial role in sustaining and amplifying these efforts. Moreover, regular reporting to the Meeting of Contracting Parties to the Barcelona Convention on the progress made by the MedProgramme will be ensured through the UN Environment/Mediterranean Action Plan-Barcelona Convention Secretariat.

[5] Transboundary diagnostic analysis (TDA) for the Mediterranean Sea, UNEP/MAP, 2005 - https://wedocs.unep.org/bitstream/handle/20.500.11822/598/medtda.pdf?sequence=2&isAllowed=y

Box 1 The Barcelona Convention and the MAP system

The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (referred to as the Barcelona Convention) is a regional convention adopted in 1976 to prevent and abate pollution from ships, aircraft and land-based sources in the Mediterranean Sea. It is developed under the UN Environment Regional Seas Programme which was established in 1974 with the scope of coordinating activities aimed at the protection of the marine environment through a regional approach. The Mediterranean Action Plan (MAP) was the first UN Environment initiative to be developed under the Programme and became the model for other seas across the globe. Since 1975, MAP has provided the institutional framework for cooperation in addressing common challenges of marine environmental degradation adopted by the Mediterranean States and the European Union.

There are 22 Contracting Parties (Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, the European Union, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia, Turkey) and they decide on MAP strategies, budget and programme of work in pursuit of MAP's goal at their Ministerial level meetings, held every two years. They appoint Focal Points to review the progress of work and ensure the implementation of recommendations at the national level. A rotating Bureau of six representatives of the Contracting Parties guides and advises the MAP Secretariat (located in Athens) in the interim period between the biannual meetings.

More information on the Coordinating Unit for the Mediterranean Action Plan, Secretariat to the Barcelona Convention and its Protocols at: http://web.unep.org/unepmap/.

The Minamata Convention on Mercury[6], the Stockholm Convention on Persistent Organic Pollutants[7], the Basel Convention[8] and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activity (GPA)[7] are also among the key guiding frameworks for the Child Projects focusing on reduction of land-based pollution (Component 1 of the MedProgramme).

In terms of knowledge management (KM), the MedProgramme holds a tremendous opportunity to generate new information and consciousness, encourage transboundary cooperation, scale up needed investments and raise general awareness about the benefits arising from good governance and management of natural resources in coastal areas.

The eight Child Projects (CP) of the MedProgramme are expected to deliver a set of complementary results embracing the categories of priorities identified by the TDA for the Mediterranean Sea which are translated into three components of the program: i) Reduction of Land-Based Pollution in Priority Coastal Hotspots and measuring progress to impacts; ii) Enhancing Sustainability and Climate Resilience in the Coastal Zone; and iii) Protecting Marine Biodiversity (see Table 2, MedProgramme Components, Child Projects and GEF Focal Areas, page 16).

[6] The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the adverse effects of mercury. It entered into force on 16 August 2017. More info: http://www.mercuryconvention.org

[7] The Stockholm Convention on Persistent Organic Pollutants is an international environmental treaty, signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of persistent organic pollutants (POPs). More info: http://chm.pops.int

[8] The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries (LDCs). The Convention was opened for signature on 22 March 1989 and entered into force on 5 May 1992. As of February 2018, 185 states and the European Union are parties to the Convention. More info: http://www.basel.int

[9] The UNEP Global Programme of Action (UNEP/GPA) aims at preventing the degradation of the marine environment from land-based activities by facilitating the realization of the duty of States to preserve and protect the marine environment. It is unique in that it is the only global initiative directly addressing the connectivity between terrestrial, freshwater, coastal and marine ecosystems. More info: https://www.unenvironment.org/nairobiconvention/unep- global-programme-action-unepgpa

The fourth component (Knowledge Management and Programme Coordination) includes Child Project 4.1 "Mediterranean Sea LME Environment and Climate Regional Support Project" which plays a key role within the MedProgramme as it "implements mechanisms for Programme-wide learning and dissemination of knowledge, monitoring the Programme's progress to impacts, and fostering synergistic interactions among Child Projects". Within the GEF programmatic approaches there is a need to ensure programme coherence and impact through coordination among diverse sets of multi-focal area Child Projects contributing to the same programme outcomes. A Support Project functions as a trait d'union (a common link) among Child Projects by providing overall coordination of the programme portfolio, resource-saving services, a robust system to managing knowledge effectively and a sound action plan for gender mainstreaming.

The present strategy provides the context and the boundaries within which KM will operate in the MedProgramme, essentially answering the strategic questions: where are we now? (baseline and project needs), what do we want to achieve? (vision and objectives), and how to get there? (framework for processes, tools, activities and governance).

The present strategy does not aim to provide a final definition of the tools, software and instruments that will be used to reach its goals. Although a wide range of them is considered and analysed, their selection will take place during the inception phase of the MedProgramme together with its stakeholders (countries and executing partners). This process will be driven by the specific needs of the stakeholders and will follow a competitive process for selection ensuring an efficient use of resources.

1.3 Where are we? (Baseline Scenario)

A baseline scenario in the context of this strategy was built through a detailed scanning of existing initiatives related to KM and the objectives of the MedProgramme, and a survey addressed to project designers aimed at diagnosing needs and expectations related to KM and outreach of Child Projects.

The overview of regional (and global when relevant) initiatives on knowledge/ information management focusing on pollution reduction, biodiversity, water resources (fresh water and marine) and climate change revealed that there is a great potential for cross-fertilization and incremental innovation. At the same time, the analysis brought to light some challenges, such as fragmentation, the inability of some projects to sustain their results, insufficient resources or attention devoted to KM approaches, gaps in information sharing, among others, which point to the need to clearly address these challenges at the onset of the MedProgramme.
The responses to the web-based survey served to inform the design of the strategy and its levels, in terms of target audiences, objectives, tools and activities.

1.4 What do we want to achieve? (KM Vision and Objectives)

The MedProgramme strives to become a knowledge hub in the Mediterranean region to scale up successful practices, encourage broader adoption, promote knowledge sharing and support the common objectives of the parties to the Barcelona Convention.
In this effort, it also pioneers a new integrated KM methodology for GEF-financed programs in line with GEF programmatic approaches. The strategy puts in place a framework that will underpin and guide the MedProgramme knowledge-sharing activities and support the achievement of the programme outcome(s), reflecting the complexity of its portfolio while ensuring that its findings are effectively translated, shared and delivered to the intended audiences.

The strategy aims to maximize the MedProgramme impact by (the KM strategy objectives):

- Strengthening coordination and operational coherence among Child Projects and their partners;
- Monitoring the execution of the activities under the entire Programme to assess progress to impact;
- Leveraging and systematically sharing knowledge assets generated by the Child Projects with the intended beneficiaries and audiences;
- Strengthening the science-policy interface (SPI) and influencing decision making through data and information sharing, capacity building, and regional stakeholder engagement;
- Supporting the objectives of the Barcelona Convention and the work of the MAP system through effective stocktaking and scaling up of programme results; and
- Fostering incremental innovation within GEF programmatic approaches and enriching the knowledge base of GEF Implementing and Executing Agencies.

1.5 How to get there?

In order to achieve this vision and related objectives, three interconnected functional levels[10] have been identified to articulate the KM strategy:

1. at the **PORTFOLIO LEVEL** to support the work of project managers and executing partners by providing project management tools and training to key regional stakeholders;
2. at the **GENERAL PUBLIC LEVEL** to share results, inform and influence target audiences by reaching out to and engaging with civil society, media, and representatives of non-scientific community;
3. at the **POLICY and DECISION-MAKING LEVEL** to support the Contracting Parties of the Barcelona Convention, relevant decision makers in the region and the work of GEF Implementing and Executing Agencies by contributing to relevant regional policy processes and related GEF initiatives (particularly the IW:LEARN project).

Organizational coherence and strong synergies among MedProgramme Child Projects are considered critical to sustain effective knowledge sharing and ensure the successful achievement of the KM objectives. Careful consideration was given to the different types of knowledge that will be generated throughout the lifespan of the programme to ensure that intangible assets (tacit knowledge, intended as human and intellectual capital) as well as technical and codified information (explicit knowledge) are properly valued and managed.

1.6 Methodology

The strategy was prepared during the period June - September 2018 in the framework of the Project Preparation Grant (PPG) phase of the MedProgramme (October 2017- December 2018) in close coordination with the senior staff of the UN Environment/Mediterranean Action Plan Secretariat. It is based on the analysis of the Program Framework Document (PFD) of the MedProgramme[11] various background documentation (including the Report from the First Regional Consultation held on 7-8 March 2018 in Athens which confirmed the decision of the countries to prepare a KM strategy), the results of a dedicated online survey, exchanges

[10] Activities and tools outlined in this strategy contribute to one or more of these operational levels.

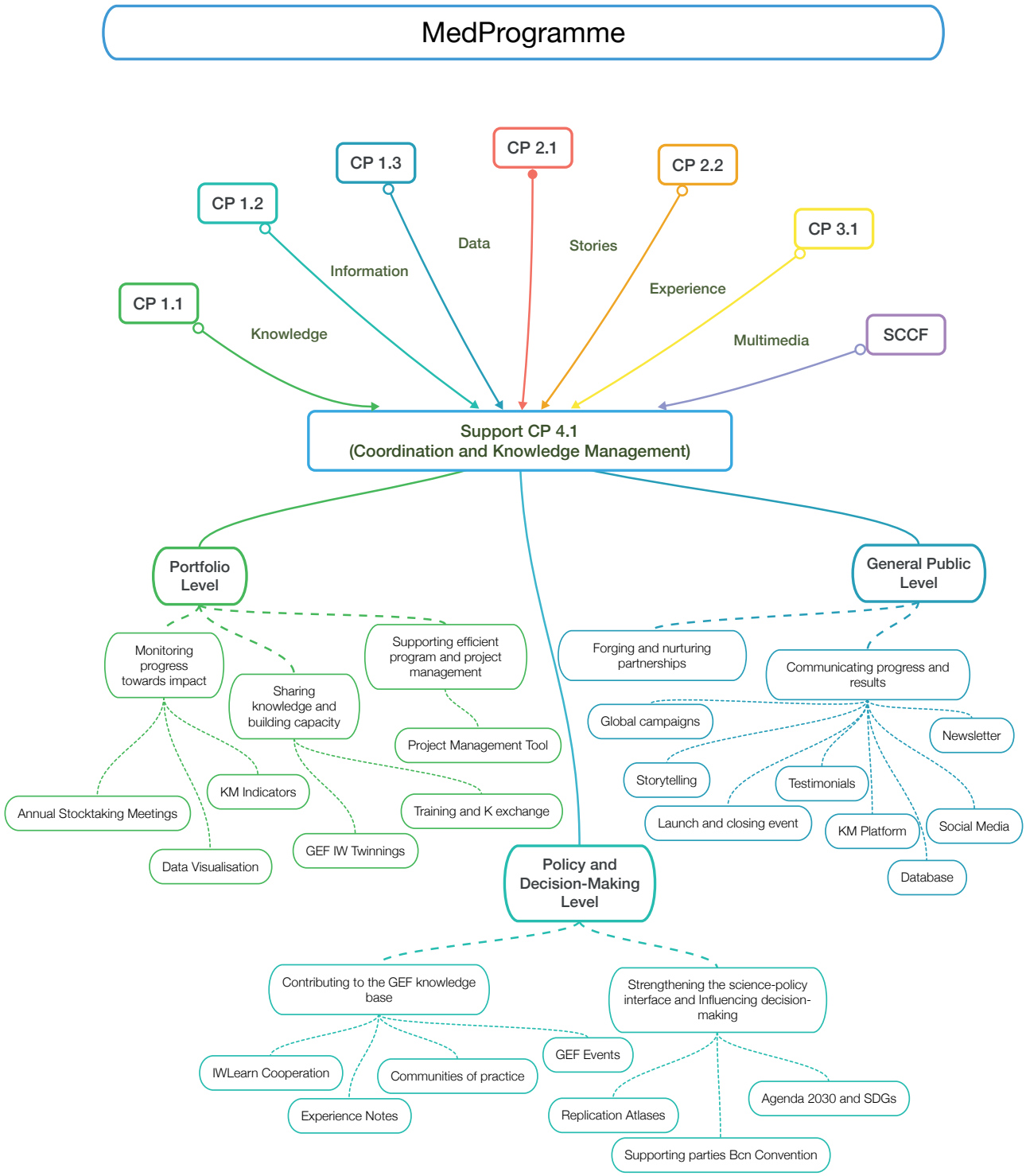
[11] The Program Framework Document (PFD) was approved by the GEF Council on 26 October 2016. More info: https://www.thegef.org/project/mediterranean-sea-programme-medprogramme-enhancing-environmental-securitynairobiconvention/unep- global-programme-action-unepgpa

with project designers (with in-depth review of available drafts of Child Project documents), desk research, contact with relevant technical counterparts (i.e. for project management tool, visualization, etc). Further inputs were collected during the Second Regional Consultations for the MedProgramme held on 20 and 21 September 2018 at UNESCO HQ in Paris. Moreover, the design of the strategy took into account lessons learned from the predecessor project of the MedProgramme, the MedPartnership Project.
The approach illustrated in the present strategy will be operationalized during the MedProgramme inception phase in 2019.

1.7 Implementation

The overall KM strategy is built within the MedProgramme Support Child Project 4.1 and executed by the MedProgramme Coordinating Unit (MedPCU) in close coordination with all Child Projects. Outcomes and outputs of Child Project 4.1 are closely aligned with the present strategy, which, in addition to the logframe in the project document, also envisions actions to be possibly undertaken in the course of the execution of the Programme. The final detailed list of tools, activities and initiatives (and their costs) will be validated during the MedProgramme inception phase and fully agreed with the countries, executing partners and stakeholders of the Programme.

Fig. 1 Knowledge production, management and dissemination in the MedProgramme



2. Baseline scenario and projects needs

2.1 Overview of regional KM initiatives

> *Connection, not collection: that's the essence of knowledge management*. –Tom Stewart

As the MedProgramme cuts across four different GEF Focal Areas (Biodiversity, Chemicals and Waste, International Waters and Climate Change), its results will be relevant for many different sectors and activities in the Mediterranean region. A review of the existing initiatives related to knowledge management in these domains was carried out with the purpose to: 1) avoid unnecessary duplication; 2) replicate and build on successful practices; and 3) establish potential synergies and partnerships. The research included knowledge platforms, databases, initiatives and projects on knowledge/information sharing in the Mediterranean region (or globally when relevant) focusing on pollution reduction, biodiversity, water resources (fresh and marine) and climate change.

The result is a detailed knowledge map that will be useful during the execution of the MedProgramme to: establish collaborations (for content sharing and use of respective networks to increase impact and dissemination), benefit from existing collected data and technical information, make reference to relevant policy and legal frameworks, get inspiration from effective data visualization examples and platform designs, and replicate/ participate in successful awareness raising campaigns and capacity building activities (see legend in Table 1 "Relevance for the MedProgramme").

Against this baseline, the MedProgramme will generate new data and develop additional capacity of beneficiary countries to reduce pollution in marine and freshwater coastal bodies, increase resilience to climate change, improve the governance of water resources, promote the nexus approach and protect biodiversity and ecosystems.

The analysis of the knowledge map shows that there is an existing wealth of information in these domains. This poses a number of challenges as well as opportunities for effective knowledge sharing. The risk of fragmentation is high, and coordination among similar or complementary initiatives is not always optimal. Often, the results of projects are not fully sustained after their closure (possibly due to lack of funds after project execution is completed, insufficient ownership of results by key stakeholders and partners, or inadequate emphasis and instruments dedicated to KM). Another crucial issue remains the integration of different environmental datasets. Aware of these challenges, the MedProgramme is tackling KM at the very outset identifying possible solutions to overcome them. Moreover, there is ample room for cross-fertilization and learning: one must avoid the temptation to reinvent the wheel, and build instead on existing knowledge useful for incremental innovation. Lastly, the wealth of partners involved in the MedProgramme and especially the MAP system, can prevent pitfalls due to lack of ownership by leveraging and sustaining the KM efforts through their networks.

Legend Table 1

Potential Collaboration for Content Sharing and use of Respective Networks to Increas Impact and Dissemination	Relevant Scientific Data and Technical Information	IW BD CW CC GEF Focal Areas (International Waters, Biodiversivity, Chemical and Waste, Climate Change)
Reference to Key Policy and legal Frameworks	Effective Example(s) of Dat Visualisation, Web Design and UX	Succesful Awareness Raising, Outreach and Capacity Building

Table 1 Overview of selected knowledge platforms and initiatives relevant for the MedProgramme (2018)

A selection of platforms, databases, initiatives and projects on knowledge - and information - sharing in the Mediterranean region (or globally when relevant) focusing on pollution reduction, biodiversity, water resources and climate change compiled for the purpose of drawing a KM baseline scenario for the GEF/UN Environment "MedProgramme".

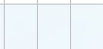
Initiative Name and URL	Organizations	Where - When - What	Relevance for MedProgramme
AMAre https://amare.interreg-med.eu https://bit.ly/2BxKG9J	**Executing Partners:** CNR, Interreg Mediterranean **Donors:** ERDF, IPA	**Geographical Area:** Mediterranean Sea **Activity Period:** 36 months (ongoing) **Description:** The objectives of this project are 1- to develop shared methodologies and geospatial tools for multiple stressors assessment, coordinated environmental monitoring, multi criteria analyses and stakeholders' engagements; 2- to translate these guidelines into concrete pilot actions and coordinated strategies in selected Marine Protected Areas (MPAs) to solve hot spots of conflicts affecting marine biodiversity and the services it provides.	BD CW
AQUACROSS http://dataportal.aquacross.eu	**Executing Partners:** IOC-UNESCO **Donors:** EU	**Geographical Area:** Europe **Activity Period:** 2018 - ongoing **Description:** Aquacross Information Platform aims to provide open access to a wide range of resources related to aquatic (freshwater, marine and coastal) ecosystem and biodiversity management at the European level. The primary focus is on data used in the various project Case Studies and Work packages, and resulting maps, model outputs and tools.	IW BD
Aquastat http://www.fao.org/nr/water/aquastat/main/index.stm	FAO	**Geographical Area:** Global (particular focus on Africa, Asia, Latin America, and the Caribbean) **Activity Period:** 1994 - ongoing **Description:** AQUASTAT started with the aim to contribute to FAO's goals through the collection, analysis and dissemination of information related to water resources, water uses and agricultural water management, with an emphasis on countries in Africa, Asia, Latin America, and the Caribbean. AQUASTAT is FAO's global water information system, developed by the Land and Water Division. It is the most quoted source on global water statistics. We collect, analyze and disseminate data and information by country on water resources, water uses, agricultural water management.	IW CW CC
Basel, Rotterdam and Stockholm Conventions Joint Clearing House Mechanism http://synergies.pops.int/Implementation/KnowledgeManagementandOutreach/Clearinghousemechanism/tabid/5382/language/en-US/Default.aspx	UN and UN Environment	**Geographical Area:** Global **Activity Period:** 2001 - ongoing **Description:** The joint clearing-house mechanism is a multi-stakeholder global system that facilitate the exchange of information and expertise relevant for the Basel, Rotterdam and Stockholm conventions. To achieve such an objective the Secretariat has developed, and is continuously enhancing, a global knowledge base made of *information* and *tools*, fed and used by all members of the clearing-house *community*.	IW CW
Biodiversity Information System for Europe (BISE) https://biodiversity.europa.eu/	European Commission, European Environment Agency	**Geographical Area:** Europe **Activity Period:** Ongoing **Description:** BISE is a single entry point for data and information on biodiversity supporting the implementation of the EU strategy and the Aichi targets in Europe.	IW BD CW
Blue Med Virtual Knowledge Centre http://www.bluemed-initiative.eu/virtual-knowledge-centre/	**Executing Partners:** UfM, EU Commission, EIB, IMO **Donors:** EU Commission	**Geographical Area:** Mediterranean Area **Activity Period:** 2014 - ongoing **Description:** The Digi-gate for Marine and Maritime Knowledge in the Mediterranean. The Virtual Knowledge Centre (VKC) was launched with the objective to provide a centralised platform for marine and maritime information and to improve synergies across different initiatives and projects in the Mediterranean region.	IW
Climate-ADAPT https://climate-adapt.eea.europa.eu	EU Commission, European Environment Agency	**Geographical Area:** Europe **Activity Period:** 2012 - ongoing **Description:** Climate-ADAPT aims to support Europe in adapting to climate change. It is an initiative of the European Commission and helps users to access and share data and information on: Expected climate change in Europe; Current and future vulnerability of regions and sectors; EU, national and transnational adaptation strategies and actions; Adaptation case studies and potential adaptation options; Tools that support adaptation planning.	CC
CONSUME-LESS Consume Less in Mediterranean Touristic Communities https://consume-less.interreg-med.eu		**Geographical Area:** Mediterranean Area **Activity Period:** 2016 - 2019 **Description:** Consume-Less aims to develop integrated sustainable energy, water and waste management strategies and to promote sustainable tourism models in Mediterranean cities. Six pilot areas are involved: Gozo, Vélez-Málaga, Saranda, Ragusa, Realmonte and Naxos.	CW
COPERNICUS Marine Environment Monitoring Service http://marine.copernicus.eu	**Executing Partners:** EU Commission, ESA, EUMETSAT, ECMWF **Donors:** EU Commission	**Geographical Area:** Global **Activity Period:** 2015 - ongoing **Description:** The Copernicus Marine Environment Monitoring Service (CMEMS) provides regular and systematic reference information on the physical state, variability and dynamics of the ocean and marine ecosystems for the global ocean and the European regional seas.	IW BD CW CC
COPERNICUS Land Monitoring Service https://land.copernicus.eu/ https://scihub.copernicus.eu/ https://www.sentinel-hub.com/	**Executing Partners:** EU Commission, ESA, EUMETSAT, ECMWF **Donors:** EU Commission	**Geographical Area:** Global **Activity Period:** 2015 - ongoing **Description:** Copernicus Land Monitoring Service (CLMS) provides geographical information on land cover to a broad range of users in the field of environmental terrestrial applications. This includes land use, land cover characteristics and changes, vegetation state, water cycle and earth surface energy variables.	BD CW CC

EMODnet http://www.emodnet.eu/	**Executing Partners:** EU **Donors:** EU Commission DG MARE	**Geographical Area:** Europe Marine Environment **Activity period:** 2013 - ongoing **Description:** The European Marine Observation and Data Network (EMODnet) consists of more than 160 organisations that together work on assembling, harmonising and making marine data, products and metadata more available to public and private users. The main purpose of EMODnet is to unlock fragmented and hidden marine data resources and to make these available to individuals and organisations (public and private), and to facilitate investment in sustainable coastal and offshore activities through improved access to quality-assured, standardised and harmonised marine data which are interoperable and free of restrictions on use. EMODnet provides access to European marine data across seven discipline-based themes: Bathymetry; Geology; Seabed habitats; Chemistry; Biology; Physics; Human activities. EMODnet motto is 'collect data once and use it many times'.						IW	BD	CW	
Environment LIVE https://environmentlive.unep.org	UN Environment	**Geographical Area:** Global **Activity Period:** Ongoing **Description:** Environment Live provides the UN Member States open access to information and knowledge on the environment at the global, regional and national levels. Environment Live is a dynamic on-line platform for sharing contextualized data and knowledge to keep the environment under review.						IW	BD	CW	CC
Euro-Mediterranean Information System on know-how in the Water sector (EMWIS) http://www.semide.net/; http://www.emwis.org	**Executing Partners:** UfM, EEA, GWP, WWC, Lebanese Minister of Energy and Water, INBO-MENBO, MED-EUWI, IME, ACWUA, AQUAMADRE, EcoMENA, MEDRC, UNU-INWEH, L'Ambassade de l'Eau **Donors:** EU Commission, EuropeAid Co-operation Office & EC DG Environment, France, Italy and Spain	**Geographical Area:** Mediterranean Sea **Activity Period:** 1999 - 2020 **Description:** EMWIS is an initiative of the Euro-Mediterranean Partnership. It provides a strategic tool for exchanging information and knowledge in the water sector between and within the Euro Mediterranean partnership countries. All the countries involved in the Union for the Mediterranean (UfM) are concerned: The 27 EU member states of the EU and the 16 Mediterranean Partner Countries (Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Jordan, Israel, Lebanon, Mauritania, Monaco, Montenegro, Morocco, Palestinian Authority, Syria, Tunisia, Turkey).						IW			
European MSP Platform https://www.msp-platform.eu/	**Executing Partners:** EASME on behalf of DG MARE **Donors:** EU Commission under the EMFF	**Geographical Area:** Europe **Activity Period:** Ongoing **Description:** The European MSP Platform is an information and communication gateway designed to offer support to all EU Member States in their efforts to implement Maritime Spatial Planning (MSP) in the years to come. Funded by the EU Directorate General for Maritime Affairs and Fisheries (DG MARE), the European MSP Platform acts as the central exchange forum for the rich knowledge generated in past, current and upcoming MSP processes and projects.						IW			
European Ocean Biogeographic Information System – EurOBIS http://www.eurobis.org	EMODnet, MarBEF, LifeWatch, Flanders Marine Institute (VLIZ)	**Geographical Area:** Mediterranean Area **Activity Period:** 2004 - ongoing **Description:** EurOBIS - the European Node of the international Ocean Biogeographic Information System (OBIS) - publishes distribution data on marine species, collected within European marine waters or collected by European researchers outside European marine waters. EurOBIS is an online marine biogeographic database compiling data on all living marine creatures. The principle aims of EurOBIS are to centralize the largely scattered biogeographic data on marine species collected by European institutions and to make these data freely available and easily accessible.						IW	BD		
FATE and impact of pollutants in terrestrial and aquatic ecosystems http://fate.jrc.ec.europa.eu/rational/home.html	**Executing Partners:** EU Commission, JRC, Institute for Environment and Sustainability **Donors:** EU, JRC	**Geographical Area:** Europe **Activity Period:** 2009 - 2015 **Description:** FATE is the ensemble name for the pool of activities related to the assessment of fate and impacts of pollutants in terrestrial and aquatic ecosystems carried out at the Institute for Environment and Sustainability (IES) of the Joint Research Centre (JRC). Contaminants spread across different environmental media through atmospheric deposition, leaching from soil to groundwater, accumulation in rivers and lakes, and discharge into the sea. FATE addresses the fate and impacts of pollutants across a range of temporal and spatial scales depending on the policy question and making the best use of available data. The results are pollution risk and vulnerability maps, which are very useful to assess the impact of EU policies, raise public awareness and facilitate planning of management scenarios.							BD	CW	
GBIF | Global Biodiversity Information Facility https://www.gbif.org	EMODnet, EU, EU BON, Japan Ministry of Environment	**Geographical Area:** Global **Activity Period:** 1999 - ongoing **Description:** GBIF—the Global Biodiversity Information Facility—is an international network and research infrastructure funded by the world's governments and aimed at providing anyone, anywhere, open access to data about all types of life on Earth. Coordinated through its Secretariat in Copenhagen, the GBIF network of participating countries and organizations, working through participant nodes, provides data-holding institutions around the world with common standards and open-source tools that enable them to share information about where and when species have been recorded.							BD		
General Fisheries Commission for the Mediterranean (GFCM) http://www.fao.org/gfcm/data/en/	FAO	**Geographical Area:** Mediterranean Sea and Black Sea **Activity Period:** 1997 - ongoing **Description:** The General Fisheries Commission for the Mediterranean (GFCM) is a regional fisheries management organization (RFMO) established under the provisions of Article XIV of the FAO Constitution. The GFCM initially started its activities as a Council in 1952, when the Agreement for its establishment came into force, and became a Commission in 1997. The main objective of the GFCM is to ensure the conservation and the sustainable use, at the biological, social, economic and environmental level, of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea (GFCM area of application).						IW	BD		
Geo-referenced information system for coastal aquifers in the Mediterranean (INWEB) http://www.inweb.gr/index.php?option=com_wrapper&view=wrapper&Itemid=220#	**Executing Partners:** UNESCO Chair and Network/International Network of Water-Environment, Centres for the Balkans (INWEB), Aristotle University of Thessaloniki. **Donors:** UNESCO	**Geographical Area:** Mediterranean Area **Activity Period:** 2003 - 2015 **Description:** The UNESCO Chair/INWEB is a network of academic and non-academic institutions. Each of the ten Balkan member countries has a focal point for its own country's members. Concentrating mainly on transboundary issues, the UNESCO Chair/INWEB promotes a multi-disciplinary approach to water resources management issues, involving scientists, engineers, economists, legal experts and sociologists. It encourages initiatives on water resources management issues from the bottom up, and promotes joint training projects and the sharing of expertise. The objectives of INWEB are to: 1. Establish an open international network of communication and shared expertise in the Balkans and other developing countries to facilitate the exchange of information and expertise in the field of water and the environment; 2. Promote the services to the region of an international body of recognised experts in water and environmental issues; 3. Create and maintain a database on transboundary water and the environment by developing an inventory of existing transboundary monitoring systems for water resources and the environment.						IW			

GODEM - Optimised Management of Waste in the Mediterranean https://lra4dev.cor.europa.eu/portal/EN/coopmonth/Pages/GODEM.aspx	EU Commission	**Geographical Area:** Mediterranean Basin **Activity Period:** 2010 - 2012 **Description:** The project is aimed at settling a network for the exchange of information and experiences between European local/regional authorities and institutions of the southern Mediterranean on the sustainable management of waste treatment.									CW	
Green Growth Knowledge Platform - GGKP http://www.greengrowthknowledge.org	**Executing Partners:** GGGI; OECD; World Bank; UNEP. **Donors:** MAVA, Swiss, Netherlands, Germany	**Geographical Area:** Global **Activity Period:** 2012 - ongoing **Description:** The GGKP is a global community of organisations and experts committed to collaboratively generating, managing and sharing green growth knowledge and data to mobilise a sustainable future.									CW	CC
H2020/SEIS Info system https://eni-seis.eionet.europa.eu/south https://www.h2020.net/	**Executing Partners:** EEA, UN Environment MAP **Donors:** EU	**Geographical Area:** South Mediterranean (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Tunisia) **Activity Period:** 2015 - ongoing **Description:** ENI SEIS II South Project aims to contribute to the reduction of the marine pollution in the Mediterranean by developing a Shared Environmental Information System (SEIS) supporting the regular production and sharing of quality assessed environmental data, indicators and information.							IW		CW	
ICZM Platform http://www.iczmplatform.org	**Executing Partners:** PAP/RAC **Donors:** MTF	**Geographical Area:** Mediterranean Area **Activity Period:** 2018 - ongoing **Description:** This interactive space is designed as a multi-disciplinary "bank" of information, documentation and good practices related to ICZM in the Mediterranean (and elsewhere), as well as a place for networking and exchange. This platform provides information on the legal and policy framework, capacity building, awareness raising, data base of projects, library and the resources for networking.							IW			CC
IMAP Info Pilot System (website under development as of 11/2018)	**Executing Partners:** UN Environment MAP, InfoRAC **Donors:** UN Environment MAP, EC	**Geographical Area:** Mediterranean Basin **Activity Period:** **Description:** Pilot IMAP compatible Data and Information System, connected to MAP Components' information systems and other relevant regional knowledge platforms, will provide data based on data standards and data dictionaries for ten selected IMAP Common Indicators.							IW			
INSPIRE Knowledge Base https://inspire.ec.europa.eu	Member States of the EU	**Geographical Area:** EU **Activity Period:** 2007 - ongoing **Description:** The INSPIRE Directive aims to create a European Union spatial data infrastructure for the purposes of EU environmental policies and policies or activities which may have an impact on the environment. This European Spatial Data Infrastructure will enable the sharing of environmental spatial information among public sector organisations, facilitate public access to spatial information across Europe and assist in policy-making across boundaries. INSPIRE is based on the infrastructures for spatial information established and operated by the Member States of the European Union. The Directive addresses 34 spatial data themes needed for environmental applications. The Directive came into force on 15 May 2007 and will be implemented in various stages, with full implementation required by 2021.										
INTEGRATED COASTAL WATER MANAGEMENT FOR MED (ICWM) https://business.esa.int/projects/icwm-for-med	ESA; Planetek	**Geographical Area:** Tyrrhenian Sea **Activity Period:** 2015 - ongoing **Description:** The objective of ICWM for MED is to demonstrate the benefits of a service based on the integration of Earth Observation based products, Satellite Communication and Navigation solutions together with Terrestrial assets and crowdsourcing features, for the set-up of an improved coastal surveillance and water quality monitoring service.							IW		CW	
Interreg Mediterranean https://interreg-med.eu; http://forum.interreg-med.eu/en/med-community/(Forum)	European Regional Development Fund, IPA fund	**Geographical Area:** Mediterranean Basin **Activity Period:** 2014 - 2020 **Description:** 13 countries are working together in the transnational European Cooperation Programme for the Mediterranean area towards low carbon economy, the protection of natural and cultural resources and the strengthening of innovation The main objective of the Interreg MED Programme is to promote sustainable growth in the Mediterranean area by fostering innovative concepts and practices and a reasonable use of resources and by supporting social integration through an integrated and territorially based cooperation approach. In the period 2014-2020, Interreg MED Programme will promote cooperation between a varied typology of actors of these thirteen Mediterranean countries.							IW	BD		CC
IODE https://www.iode.org	**Executing Partners:** UNESCO IODE **Donors:** UNESCO	**Geographical Area:** Global **Activity Period:** 1961 - ongoing **Description:** The programme "International Oceanographic Data and Information Exchange" (IODE) of the "Intergovernmental Oceanographic Commission" (IOC) of UNESCO was established in 1961. Its purpose is to enhance marine research, exploitation and development, by facilitating the exchange of oceanographic data and information between participating Member States, and by meeting the needs of users for data and information products.							IW			
IW:LEARN (Global Environment Facility's International Waters Learning Exchange and Resource Network) www.iwlearn.net	**Executing Partners:** UNDP; UN Environment. **Donors:** GEF	**Geographical Area:** Global (GEF IW portfolio) **Activity Period:** 2004 - ongoing **Description:** IW:LEARN is the Global Environment Facility's (GEF) International Waters Learning Exchange and Resource Network. The IW:LEARN project was established to strengthen transboundary water management around the globe by collecting and sharing best practices, lessons learned, and innovative solutions to common problems across the GEF International Waters portfolio. It promotes learning among project managers, country official, implementing agencies, and other partners.							IW			
IW:LEARN Groundawater Community of Practice http://groundwatercop.iwlearn.net	**Executing Partners:** UNDP, UN Environment (Implementing Agencies); UNESCO International Hydrological Programme (Executing Agency) **Donors:** GEF	**Geographical Area:** Global (GEF IW portfolio) **Activity Period:** 2012 - ongoing **Description:** The GW CoPs aims to accelerate learning from and within the GEF IW portfolio, and promote replication of good practices in transboundary freshwater management. The CoP acts as a catalytic coalition among GEF IW projects to promote learning that meets project-level priorities. It is designed to build on existing knowledge from inside and outside the GEF portfolio and be responsive to the learning needs of the GEF IW projects .The COP provide an opportunity to build capacity on groundwater resources management and promote the conjunctive management with surface freshwater and marine waters.							IW	BD	CW	

MAMIAS - Marine Mediterranean Invasive Alien Species http://www.mamias.org	UNEP/MAP, RAC/SPA	**Geographical Area:** Mediterranean Sea **Activity Period:** 2012 - ongoing **Description:** The Database includes among Alien species, cryptogenic ones. Tropical Atlantic species, which have expanded their geographic distribution in the Mediterranean, are noted as range expansion, or vagrant. The Database includes also species that have been occasionally reported as alien but were subsequently excluded from lists, along with the reasoning of their exclusion.							BD		
MAPAMED http://www.rac-spa.org/mapamed	MedPAN and SPA/RAC	**Geographical Area:** Mediterranean Sea **Activity Period:** 2012 - ongoing **Description:** MAPAMED (Marine Protected Areas in the Mediterranean) is a GIS database that gathers information on marine protected areas of the Mediterranean, and more generally on sites of interest to the conservation of the marine environment. It is developed and jointly administered by the MedPAN association and SPA/RAC. MAPAMED (i) facilitates the access and the sharing of data on Mediterranean MPAs, (ii) allows the analysis and the evaluation of the status and trends of the MPA network and (iii) identifies ecological and management issues at a supra-AMP scale.						IW	BD		
MapX https://www.mapx.org	UN Environment, World Bank, GRID-Geneva	**Geographical Area:** Global **Activity Period:** Ongoing **Description:** MapX was developed by UN Environment, the World Bank and the Global Resource Information Database (GRID-Geneva) to capitalize on the use of new digital technologies and cloud computing in the sustainable management of natural resources. One of the founding principles was to equalize information held by different stakeholders as a prerequisite to better dialogue, decision making and monitoring. MapX evolved from an initial focus on extractive resources to include a range of different resource types and themes. Of particular relevance for the MedProgramme are the data layers in MapX developed by UN Environment for MapX to support countries in meeting their reporting obligations on mercury use and emissions under the Minamata Convention, and to manage spatial information regarding PCBs and facilitate reporting for the Stockholm Convention.						IW	BD	CW	CC
Marine Biodiversity and Ecosystem Functioning EU Network of Excellence - MarBEF http://www.marbef.org	EU	**Geographical Area:** Europe Marine Environment **Activity Period:** 2004 - 2009 **Description:** A key task of the MarBEF Network is the integration of different resources related to marine biodiversity. The inventory of these resources can be found on this website. At the moment, this relational database includes information on different European marine biodiversity research sites and European marine biodiversity datasets. The European Register of Marine Species, ERMS and the European node of the Ocean Biogeographic Information System, EurOBIS is also accessible through this website. The terms of use of data are formulated in the MarBEF data policy.						IW	BD		
MED POL Info System http://www.info-rac.org/en/activities/infomap	UNEP/MAP	**Geographical Area:** Mediterranean Sea **Activity Period:** 2001 - ongoing **Description:** MED POL Info System is an online portal that allows Contracting Parties to submit their quality assured data generated from the implementation of the national marine pollution programmes designed in accordance with LBS Protocol.						IW		CW	
MED-3R Euro-Mediterranean Strategic Platform for a Suitable Waste Management - Recycle, Reduce, Reemploy http://www.med-3r.org/index.php/en/about/the-med-3r-project	**Executing Partners:** Mediterranean Sea Basin Programme ENPI CBCMED **Donors:** 90% European Union, 10% Partners	**Geographical Area:** Mediterranean Basin **Activity Period:** 2012 – 2015 **Description:** MED-3R sets up an institutional innovation of multi-level governance, implemented on the basis of strategic platform: "The Euro-Mediterranean Strategic Platform for a Suitable Waste Management" to the benefit of technical managers and experts on waste management over the Mediterranean basin.								CW	
MEDACES - Mediterranean Database of Cetacean Strandings medaces.uv.es/home_eng.htm	**Executing Partners:** RAC/SPA, ICBIBE **Donors:** Spanish Ministry of the Environment, and Rural and Marine Affairs (MMA)	**Geographical Area:** Mediterranean Sea **Activity Period:** 2001 - ? **Description:** In November 2001, the 12th Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its Protocols, within the "Biological Diversity and Specially Protected Areas" section, recommended for implementing the Action Plan for the Conservation of Cetaceans in the Mediterranean Sea, to approve the offer by Spain with regard to the establishment in Valencia of a Mediterranean database on cetacean strandings (MEDACES).							BD		
MedICIP http://medicip.grid.unep.ch	**Executing Partners:** UNEP/MAP, Plan Bleu, GWP, PAP/RAC **Donors:** GEF	**Geographical Area:** Mediterranean Basin **Activity Period:** 2009 - 2015 **Description:** MedICIP is an online multi countries effort to share data and information on Climate Change in the Mediterranean coastal areas. It is a "portal of portals" which gathers data, information and web links towards other institutions (national and regional), in support the implementation of the ICZM protocol.						IW			CC
Mediterranean Basin Biodiversity Hotspot http://www.birdlife.org/cepf-med/hotspot	**Executing Partners:** CEFP (Critical Ecosytem Partnership Fund); Bird's Life; LPO; DOPPS. **Donors:** CEPF (GEF, World Bank, AFD, CI, EU, Japan Gov.)	**Geographical Area:** Mediterranean Basin **Activity Period:** 2012 - 2022 **Description:** During the initial investment, 108 grants were awarded to 84 different organizations in 12 countries. This first investment phase demonstrated that civil society organizations do exist in each hotspot country, and that adequate financial support, combined with technical support, has the potential to build strong constituencies able to tackle conservation issues at the local level. CEPF's second phase of investment will focus on protecting plants, promoting regional networking and preserving three ecosystems—coastal, freshwater and traditionally managed landscapes. CEPF is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank.							BD		CC
MEDITERRANEAN OBSERVATORY ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT http://obs.planbleu.org/en/	**Executing Partners:** Plan Bleu, UNEP/MAP **Donors:** MAVA, UN Environment	**Geographical Area:** Mediterranean Basin **Activity Period:** Ongoing **Description:** Plan Bleu, acting as a Mediterranean Observatory on Environment and Sustainable Development, has developed an experience in collecting, managing and disseminating data on Sustainable development issues in the Mediterranean Region. One of Plan Bleu's mission is to provide the Contracting Parties of Barcelona Convention with environmental and sustainable development statistics, indicators and assessments to support their action and decision making process.						IW			CC

Mediterranean Water Knowledge Platform (MWKP) http://www.emwis.net/initiatives/MWKP	International Office for Water (IOWater); Institut Méditerranéen de l'Eau (IME); Union for the Mediterranean (UfM)	**Geographical Area:** Mediterranean Basin **Activity Period:** (Phase 1) 2013-2016 - (Phase 2) 2016-2018 **Description:** The regional project towards a Mediterranean Water Knowledge Platform got the UfM label on 8 April 2014, at the unanimity of 43 countries members of the Union for the Mediterranean. The project has two components: the 1st one, coordinated by the International Office for Water (IOWater), aims at strengthening the National Information Systems on Water in line with the regional approach taken implemented by the Euro-Mediterranean Information System on know-how in the Water sector (EMWIS); the 2nd one, coordinated by the Institut Méditerranéen de l'Eau (IME), is based on the exploitation of data and information on water for the preparation of a Mediterranean White Paper on Water. This White Paper is part of logical showcasing best practices for integrated water resources management.						IW			
MEDLEM (MEDiterranean Large Elasmobranchs Monitoring) PROGRAM www.arpat.toscana.it/medlem	ARPAT (agenzia regionale per la protezione ambientale della Toscana)	**Geographical Area:** Mediterranean Sea **Activity Period:** 2002 - ongoing **Description:** MedLem is a monitoring programme on the captures and sightings of the large cartilaginous fishes occurring in the Mediterranean Sea. A tool for storing and sharing the large shark's data collected in the mediterranean countries. The database is under maintenance: it will be on line again at the end of 2017.							BD		
MedOpen http://www.medopen.org	**Executing Partners:** PAP/RAC **Donors:** UNEP	**Geographical Area:** Mediterranean Area **Activity Period:** Ongoing **Description:** MedOpen aims at assisting Mediterranean countries in building capacities for coastal management. The training programme has been created to share ideas, knowledge and strategies to forward the art of designing and implementing local, national and regional place-based integrated coastal zone management (ICZM), as well as to enhance a policy dialogue and build / improve capacities on implications of climate variability and change (CV&C) considerations. The MedOpen training is completely free of charge.						IW			
MedPAN - The network of Marine Protected Areas managers in the Mediterranean http://medpan.org	**Executing Partners:** UNEP RAC/SPA, WWF, IUCN **Donors:** EU Commission, UNEP, WWF and others	**Geographical Area:** Mediterranean Sea **Activity Period:** 2008 - ongoing **Description:** The MedPAN network's mission is to promote, through a partnership approach, the sustainability and operation of a network of Marine Protected Areas in the Mediterranean which are ecologically representative, connected and effectively managed to help reduce the current rate of marine biodiversity loss.						IW	BD		CC
NBB PRTR (website under development as of 11/2018)	**Executing Partners:** UN Environment MAP, InfoRAC **Donors:** UN Environment MAP, EC	**Geographical Area:** Mediterranean Basin **Activity Period:** **Description:** Provides information on pollution load from sectors and activities in accordance with the requirements LBS Protocol of Barcelona Convention						IW		CW	
OBIS - Ocean Biogeographic Information System http://www.iobis.org/	IOC-UNESCO, IODE	**Geographical Area:** Global **Activity Period:** 1997 - ongoing **Description:** OBIS is a global open-access data and information clearing-house on marine biodiversity for science, conservation and sustainable development. Its aim is to build and maintain a global alliance that collaborates with scientific communities to facilitate free and open access to, and application of, biodiversity and biogeographic data and information on marine life. Obis mission is to build and maintain a global alliance that collaborates with scientific communities to facilitate free and open access to, and application of, biodiversity and biogeographic data and information on marine life.						IW	BD		
OpenChannels https://www.openchannels.org/	**Executing Partners:** Open Communication for The Ocean and Partners **Donors:** Gordon and Betty Moore Foundation	**Geographical Area:** Global **Activity Period:** 2012 - ongoing **Description:** OpenChannels aims to foster a vibrant online community of ocean planners and managers sharing experience, knowledge, and advice with peers. In doing so, we can speed the advancement of sustainable ocean management and conservation. OpenChannels is designed to be highly focused on user needs. We want to provide access to all the information that ocean planners and managers need to do their jobs most effectively, including existing high-quality content and new information products and services.						IW			
PANACeA project https://biodiversity-protection.interreg-med.eu	**Executing Partners:** Malaga University, Interreg Mediterranean, Plan Bleu **Donors:** ERDF, IPA	**Geographical Area:** Mediterranean Basin **Activity Period:** 36 months (ongoing) **Description:** Devised as a one entry point to scientific evidence supporting best practice on protected area management and environmental policymaking in the region, the Mediterranean Biodiversity Protection Platform (BPP) gathers the expert knowledge generated by the Mediterranean biodiversity protection community as main providers of content. The MedBiodiversity Knowledge platform will open in 2018.							BD		CC
Pegaso Project - People for Ecosystem-based Governance in Assessing Sustainable development of Ocean and coast http://pegasosdi.uab.es/	Universitat Autònoma de Barcelona (UAB)	**Geographical Area:** Mediterranean Sea and Black Sea **Activity Period:** 2010 - 2014 **Description:** The main objective of PEGASO is to build on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with and relevant to the implementation of the ICZM Protocol for the Mediterranean. The PEGASO SDI is a distributed sharing infrastructure made up of GeoNodes and with three main components: a map viewer, map services and a spatial catalog.						IW			
Protected Planet https://www.protectedplanet.net/marine	**Executing Partners:** UNEP-WCMC, IUCN **Donors:** UNEP, IUCN	**Geographical Area:** Global **Activity Period:** 2014-ongoing **Description:** Protected Planet is the most up to date and complete source of information on protected areas, updated monthly with submissions from governments, non-governmental organizations, landowners and communities. It is managed by the United Nations Environment World Conservation Monitoring Centre with support from IUCN and its World Commission on Protected Areas (WCPA). It is a publicly available online platform where users can discover terrestrial and marine protected areas, access related statistics and download data from the World Database on Protected Areas (WDPA).						IW	BD		
SPACE ALBORAN http://www.iucn-geoportalboran.org/	**Executing Partners:** IUCN Center for Mediterranean Cooperation **Donors:** IUCN, EU, MAVA, POCTAFEX	**Geographical Area:** Alboran sea (Gibraltar strait) **Activity Period:** 2007 - ongoing **Description:** The geoportal's aim is to promote governance of the natural resources of the Alboran sea. A space for governance that promotes the exchange of knowledge, participation, management and learning.						IW	BD		

Strategic Approach to International Chemicals Management (SAICM) http://www.saicm.org/Home/tabid/5410/language/en-US/Default.aspx	**Donors:** UN Environment, ICCA, EU + 15 countries	**Geographical Area:** Global **Activity Period:** 2006 - ongoing **Description:** SAICM was developed by a multi-stakeholder and multi-sectoral Preparatory Committee and supports the achievement of the 2020 goal agreed at the 2002 Johannesburg World Summit on Sustainable Development. SAICM overall objective is the achievement of the sound management of chemicals throughout their life cycle so that by the year 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health.									CW	
The Mediterranean Biodiversity Platform http://data.medchm.net/en/	**Executing Partners:** SPA/RAC **Donors:** MAVA Foundation	**Geographical Area:** Mediterranean Sea **Activity Period:** 2017 - ongoing **Description:** The Mediterranean Biodiversity Platform is an online tool to inventory, catalog and store data on marine and coastal biodiversity in the Mediterranean, and view them on maps.						IW	BD		
The MPA Action Agenda https://www.mpaaction.org/	WWF and partners	**Geographical Area:** Global **Activity Period:** 2014 - ongoing **Description:** The MPA Action Toolkit is an online platform designed for MPA managers and establishers, marine researchers and other MPA advocates. The objective of this online platform is to share knowledge on MPAs and tools that can contribute to MPA advocacy. On this toolkit you find infographics, videos, academic articles, reports and other types of material that can be used for MPA advocacy and relating activities.						IW	BD		
The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem (MedPartnership) Project http://themedpartnership.org	**Executing Partners:** UNEP/MAP **Donors:** GEF, EU, others	**Geographical Area:** Mediterranean Basin (Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Montenegro, Palestine, Syria, Tunisia and Turkey) **Activity period:** 2010 - 2015 **Description:** The Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem (MedPartnership) is a collective effort of leading environmental institutions and organizations together with countries sharing the Mediterranean Sea to address the main environmental challenges that Mediterranean marine and coastal ecosystems face. The goals include: to improve environmental conditions of pollution and biodiversity hotspots and other priority areas under stress, to promote the sustainable use of marine and coastal resources through integrated approaches, to reduce pollution from land-based sources, to enhance the protection of 'critical' habitats and species, and to integrate climate considerations into national marine and coastal planning.					IW	BD		
UN Environment World Conservation Monitoring Centre https://www.unep-wcmc.org/	UNEP, WCMC	**Geographical Area:** Global **Activity Period:** Ongoing **Description:** The UN Environment World Conservation Monitoring Centre (UNEP-WCMC) works with scientists and policy makers worldwide to place biodiversity at the heart of environment and development decision-making to enable enlightened choices for people and the planet. Our 100-strong international team are recognised leaders in their field and have unrivalled understanding of the institutional landscape surrounding biodiversity policy and ecosystem management. Based in Cambridge, UK, UNEP-WCMC is a collaboration between UN Environment and the UK charity, WCMC. By working with expert partners worldwide, we draw together, analyse and interpret information on biodiversity, and strengthen the ability of others to do so.						IW	BD		
Water Information Network System (WINS) http://ihp-wins.unesco.org/	UNESCO IHP	**Geographical Area:** Global **Activity Period:** 2017 - ongoing **Description:** Launched in January 2017 by the International Hydrological Programme of UNESCO, WINS is an open-access and participatory platform to share, access and visualize water-related information at all levels. It provides also a networking hub through online working groups, which aims to facilitate exchange among stakeholders. As of june 2018, 40 Member States have joined the platform.						IW			
WISE - Water Information System for Europe https://water.europa.eu; https://water.europa.eu/freshwater; https://water.europa.eu/marine	**Executing Partners:** DG-ENV, JRC, EEA, Eurostat **Donors:** EU Commission, European Environmental Agency (EEA)	**Geographical Area:** Europe Marine Environment **Activity Period:** 2007 - ongoing **Description:** The Water Information System for Europe (WISE) is a partnership between the European Commission (DG Environment, Joint Research Centre and Eurostat) and The European Environment Agency. WISE is a gateway to informations on European marine issues in support of ocean governance and ecosystem based management						IW	BD	CW	
WOCAT - World Overview of Conservation Approaches and Technologies https://www.wocat.net/en/about	Universitat Bern, SDC, GIZ, CIAT, ICARDA, FAO, ISRIC, ICIMOD	**Geographical Area:** Global **Activity Period:** 1992 - ongoing **Description:** The World Overview of Conservation Approaches and Technologies (WOCAT) is a Network that was established in 1992. The WOCAT Network launched efforts to compile, document, evaluate, share, disseminate, and apply sustainable land management (SLM) knowledge. It was far ahead of others in recognizing the vital importance of SLM and the pressing need for corresponding knowledge management. In early 2014, WOCAT's growth and ongoing improvement culminated in its being officially recognized by the UNCCD as the primary recommended database for SLM best practices.						IW		CW	CC
World Resource Institute http://www.wri.org	WRI	**Geographical Area:** Global **Activity Period:** 1982 - ongoing **Description:** World Resources Institute (WRI) is a global research organization that spans more than 60 countries. Our more than 700 experts and staff turn big ideas into action at the nexus of environment, economic opportunity and human well-being. We start with data, creating user-friendly information systems, protocols and standards. We conduct independent, unbiased research to analyze relationships and design solutions, and communicate our findings in a compelling manner.						IW	BD		CC
World Water Quality Portal http://www.worldwaterquality.org	**Executing Partners:** UNESCO-IHP, IIWQ (International Initiative on Water Quality), EOMAP **Donors:** UNESCO-IHP	**Geographical Area:** Global **Activity Period:** Ongoing **Description:** UNESCO, through its International Initiative on Water Quality (IIWQ) under IHP, has launched the first comprehensive worldwide water quality online portal for freshwater systems, lakes and rivers, retrieved from satellite-based earth observation data, to assist with global water quality assessment and capacity building.						IW		CW	

2.2 Analysis of preliminary survey results

Every project creates knowledge. Every project depends on knowledge. –Unknown

The eight Child Projects of the MedProgramme are expected to produce different sets of outputs and results while contributing to the overarching goal of enhancing environmental security in the region, embracing three categories of transboundary concern (components 1, 2 and 3) as illustrated in Table 2. The fourth component hosts the Support Child Project on coordination and knowledge management.

Table 2 MedProgramme Components, Child Projects and GEF Focal Areas

Mediterranean Sea Programme (MedProgramme)		
MedProgramme Component	**Child Project**	**GEF Focal Areas**
1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and measuring progress to impacts.	1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts"	**IW and CW**
	1.2 "Mediterranean Pollution Hot Spots Investment Project"	**IW**
	1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"	**IW**
2. Enhancing Sustainability and Climate Resilience in the Coastal Zone.	2.1 "Mediterranean Coastal Zones Climate Resilience Water Security and Habitat Protection"	**IW**
	2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem NEXUS"	**IW**
	SCCF "Enhancing regional climate change adaptation in the Mediterranean Marine and Coastal Areas"	**CC**
3. Protecting Marine Biodiversity	3.1 "Management Support and Expansion of Marine Protected Areas in Libya"	**BD**
4. Knowledge Management and Programme Coordination	4.1 "Mediterranean Sea Basin Environment and Climate Regional Support Project"	**IW and CW**

In order to diagnose KM-related needs and expectations of Child Projects (CP), a preliminary survey[12] was prepared and shared with project designers (July-August 2018). The designers of all projects participated in the web-based survey (27 questions), sometimes with representation of more than one person per CP. The analysis of the answers helped building the KM approach, identifying tools and levels of intervention particularly related to:

- Target audiences
- Project / Programme management
- Managing and Visualizing the data
- Information and Knowledge Management

Relevant results of the survey are presented below by cluster topics, however overall the following can be observed:

- The Child Projects of the MedProgramme will produce a rich and heterogenous amount of data and results (quantitative, qualitative, normative). A responsive system to manage the information flow is therefore needed to: capture, store and digest raw data; ensure smooth reporting and coordination; offer a digital representation of the progress through visualization tools for both spatial and non-spatial information; and use the collective information to package appropriate products and knowledge-sharing assets for the intended target audiences of the MedProgramme.

- Data sharing and data collection modalities are critical for generating and managing knowledge. Defining how projects will prepare and make available their data should be addressed at the beginning of the Inception phase of the MedProgramme, once indicators are selected for all Child Projects. A dedicated workshop should be organized to identify sharing standards, protocols and practices for data collection and reporting, including to ensure data quality, respect of privacy and compatibility with data visualization tools on the MedProgramme portal.

- The primary audience of the MedProgramme CPs are policy- and decision-makers in the region. However, in order to influence policy making there is a need to engage and involve a large number of diverse stakeholders to inform them about the findings and benefits arising from the MedProgramme interventions. To this end, three different functional levels (see page 32) and groups of audiences/ stakeholders have been identified to articulate the KM strategy.

- Technical practitioners are among the principal consumers of scientific reports and detailed assessments; therefore, each Child Project shall consider specific groups of technical practitioners in their stakeholder analysis to make sure that the KM strategy can incorporate these views at the programme level.

- The mapping of stakeholders and related engagement plan is crucial to ensure the impact of the KM strategy and of the MedProgramme as a whole. It is important to identify knowledge suppliers/ brokers, knowledge recipients/ beneficiaries and potential change agents at the project level (to be done during the inception phase) and then make sure that these are involved and engaged at the Programme level (see more page 25).

- During the Project Preparation Grant (PPG) phase (June-September 2018) details on activities, stakeholders, outputs and indicators of every Child Project were not available due to the staggered timeframes in preparing the individual project documents. However, through the survey (and several bilateral consultations) it was possible to collect enough insights into the planning of each CP to suggest appropriate solutions and frameworks to manage knowledge holistically across the MedProgramme portfolio.

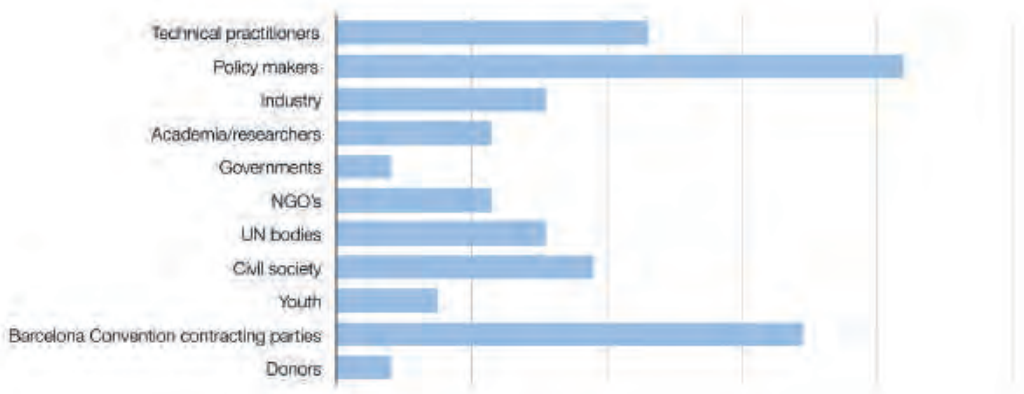
[12] Ref. The preparation of the survey benefitted from the expert and kind advice of staff from UN Environment, Plan Bleu and PAP/RAC. The full questionnaire, which was shared through Google Forms, is annexed in .pdf

Target audiences

[Q2] Who will the primary target audience for your project results be?

The respondents identify as their principle target audience policy makers and the parties to the Barcelona Convention, followed by technical practitioners and civil society. Other relevant audiences are: industry, academia and other UN bodies are: industry, academia and other UN bodies.

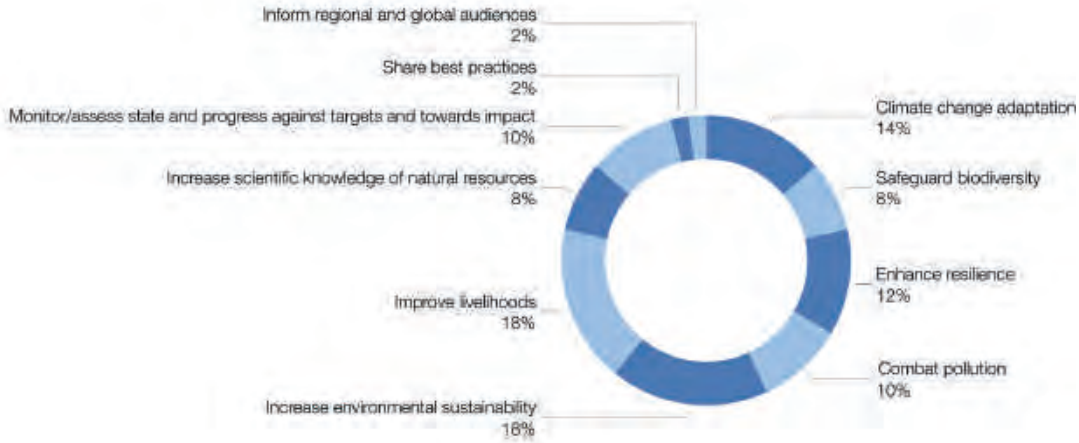
Chart 1



[Q4] Why is your data important?

The data produced will have different objectives, including the priorities to enhance environmental sustainability, increase livelihoods, and adapt to climate change.

Chart 2



Project/Programme management

[Q3] When will your project start to produce data/results?

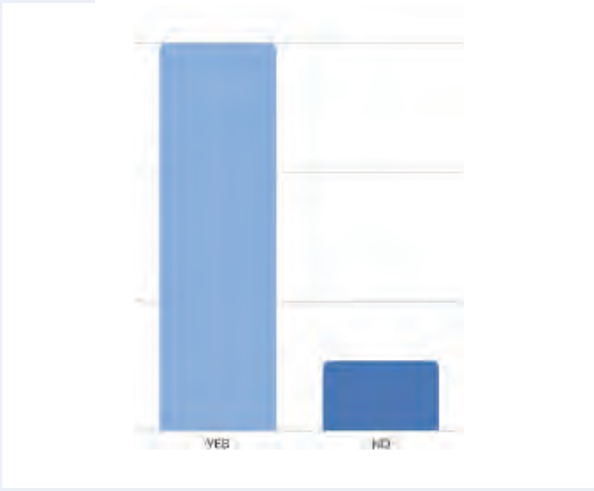
Three projects will start producing data right away while other projects will produce data at different times.

Chart 3

[Q7] Will you and your collaborators be willing to adopt the selected project management tool?

85% of respondents are willing to adopt a web-based project management tool with initial training provided.

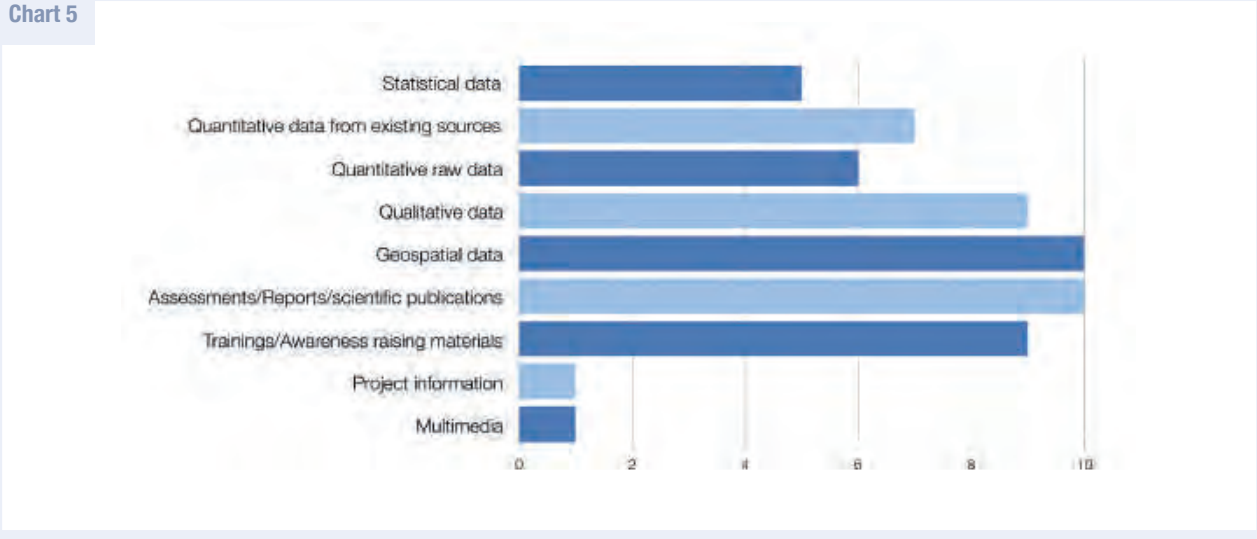
Chart 4



Managing and Visualizing the Data

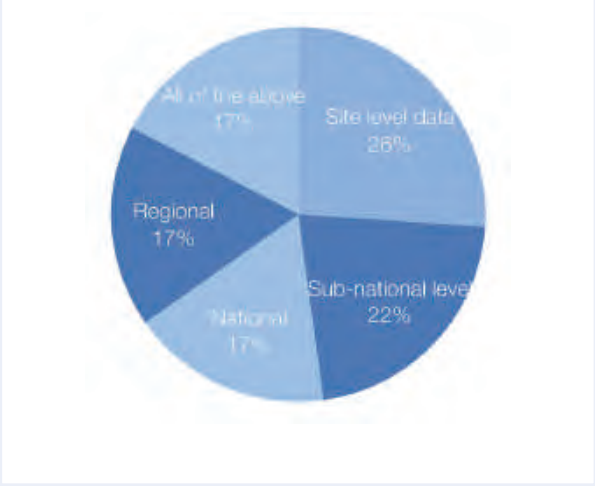
[Q10] What type of data will you collect and manage as part of your project?

Chart 5



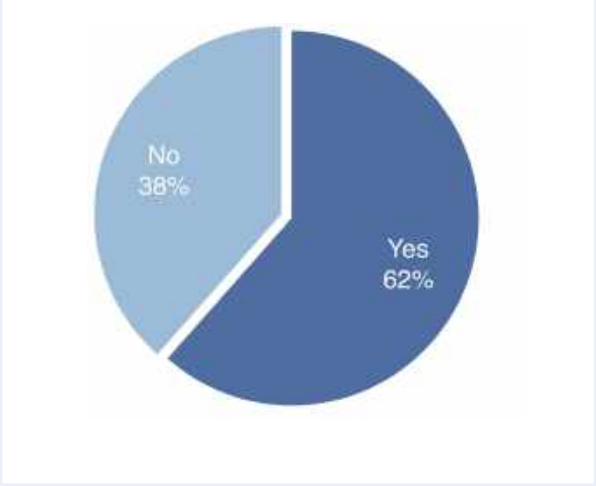
[Q11] If your project works with geospatial data, what scale do you work at?

Chart 6



[Q13] Does your project include the collection and management of time series data?

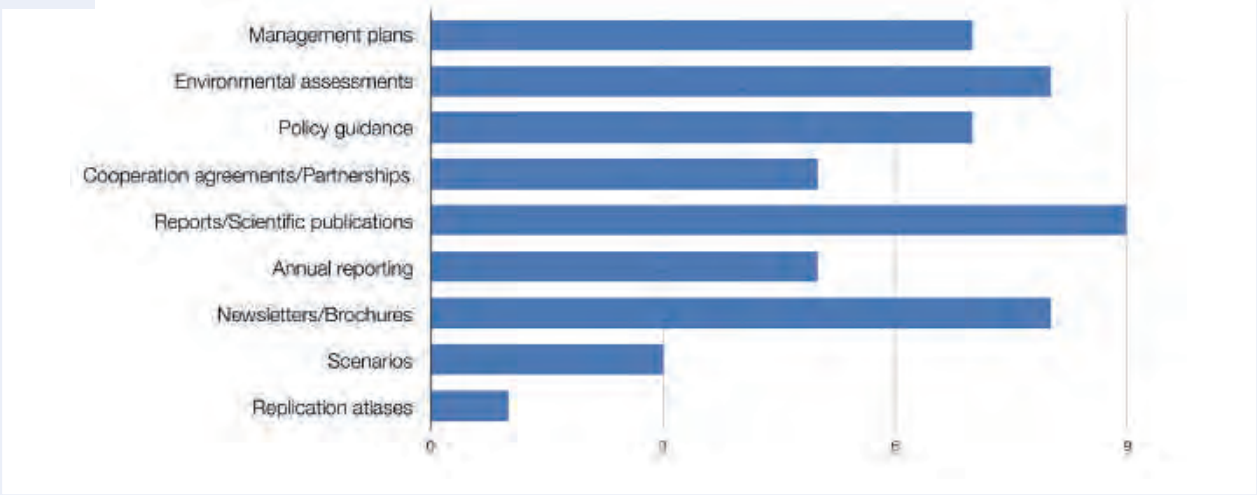
Chart 7



[Q10,11,13,14] Six of the CPs will produce geospatial data from site to regional levels, five will produce qualitative data (see also [16], data from surveys), four will use existing data from external sources, and three will generate new raw data, some of which will be in the form of time series with varying update frequency.

Chart 8 [Q12] If your project produces qualitative data, what kind is it?

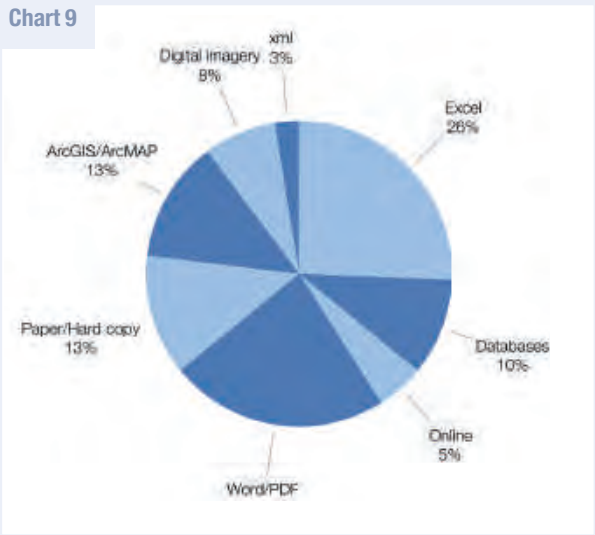
Chart 8



[Q16] What format will you prepare your data in?

A majority of respondents will use Excel to manage their data. Four will use MS Access or similar. Most projects will also manage (qualitative) data in Word, xml and even hard copies (e.g. from questionnaires and surveys). Five projects will manage ArcGIS or ArcMap files and three expect to generate digital images.

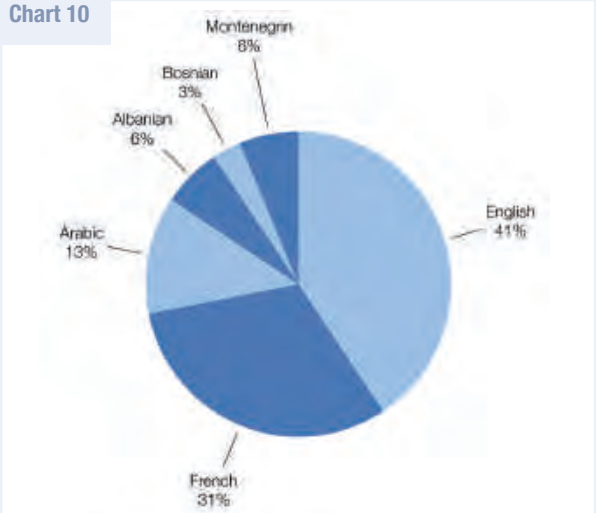
Chart 9



[Q5] What language(s) will your data be produced in?

Data will be produced in six different languages, with the vast majority producing data in English (41%) and/or French (31%) and Arabic.

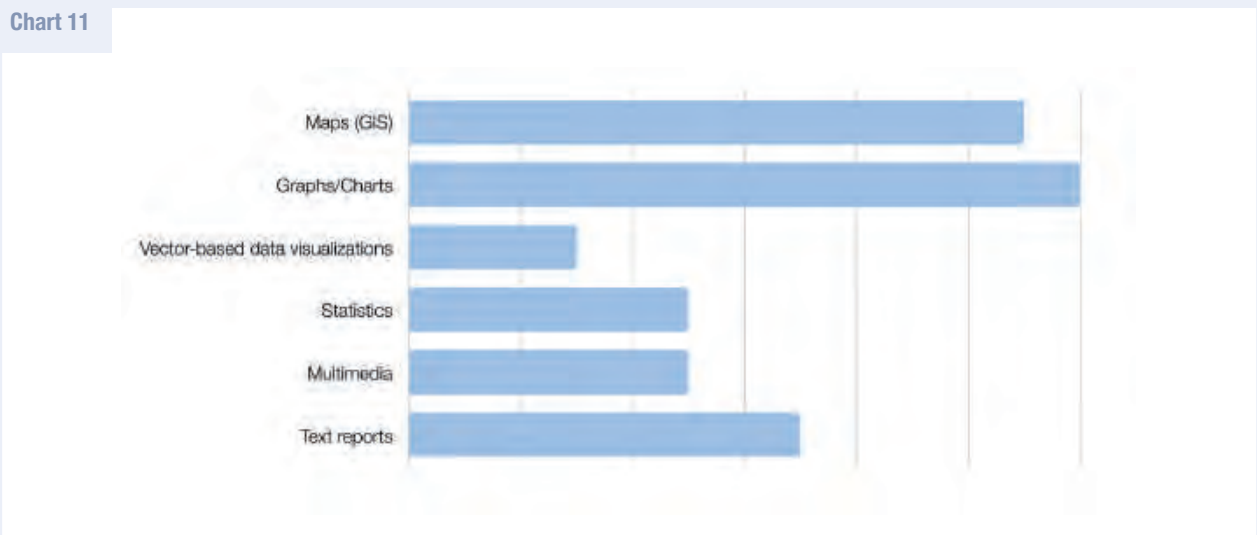
Chart 10



[Q17] Within your Organization/Institution, what type of online visualization tools have you been using so far (if any)?

Most respondents have used charts/graphs and GIS to visualize their data in the past while a smaller number use reports, multimedia and statistics.

Chart 11

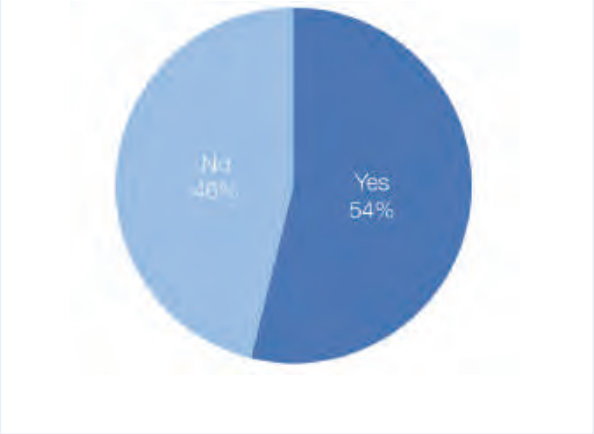


Information and Knowledge Management

[Q8] Have you ever used a Knowledge and Information Management platform?

About half of the respondents have used information and knowledge management platforms before.

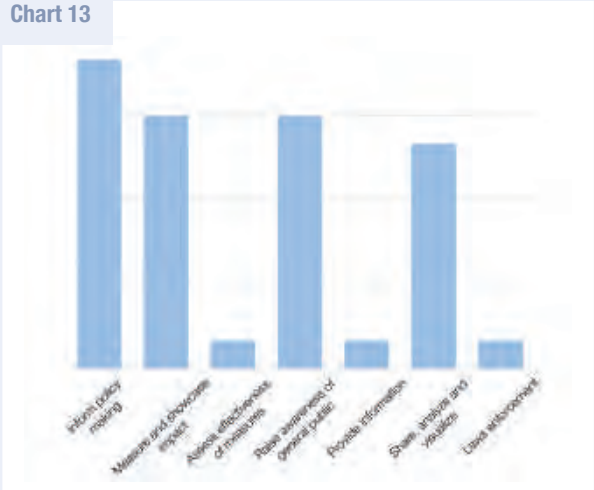
Chart 12



[Q23] What is your key objective for an online (geospatial) platform?

Respondents' expectations in relation to the platform are multiple and include an internal dimension related to data management and information/knowledge sharing among projects, and a public dimension related to showcasing impact, raising awareness and informing policy making in a transparent way. The platform should also help gather the elements that will be needed to tell engaging stories over the lifespan of the programme.

Chart 13



[Q26] What is your key objective for an online (geospatial) platform?

To this open question, respondents illustrated a variety of needs including:

- Engage partners from the beginning so they know they have a channel to promote their work (addressed at the 3 functional levels);
- Help track progress towards set goals (addressed at the portfolio level);
- Improve the internal work between executing partners and the way to communicate (addressed at the portfolio level);
- Facilitate reporting to the GEF (e.g. by timely gathering relevant information from executing partners) (addressed at the portfolio and policy levels);
- Effectively manage documents collaboratively among the co-executing partners (addressed at the portfolio level);
- Provide a roster of environmental experts (addressed at the portfolio level and policy levels);
- Provide a solid and centralized structure as well as cost-effective tools to collect, assess and share data and information (addressed at the portfolio level);
- The strategy should be designed in a way to primarily serve the governments of the contracting parties who have the executive powers to manage the environment, coast, biodiversity, natural resources (addressed at the policy level);
- The strategy should timely inform partners about expectations regarding their contributions to the communication strategy and the amount of work expected (addressed at the portfolio level); and
- The KM strategy should become a best practice for other programmatic approaches and projects.

2.3 MedProgramme Stakeholders

Stakeholder participation is an inherent part of the structure of MAP and the Barcelona Convention where all countries (represented by the MAP focal points) form the Contracting Parties to the Barcelona Convention. In addition, about 100 NGOs and Intergovernmental Organizations (IGOs), termed "partners" are participants to the meetings of the Barcelona Convention. It should also be stressed that stakeholders participated in the formulation of the TDA-MED, SAP-MED, SAP-BIO and the NAPs of the countries, on which the MedProgramme is based. In summary, the key stakeholders that CP 4.1 will strive to involve at national level include:

- Public Sector: ministries responsible for water resources; environment; spatial and development planning; transport; tourism; fisheries; industry; maritime affairs; health; fire-fighting; community development; education; culture and local government authorities.

- Private Sector: national and regional organizations representing: farmers; fisher folk; manufacturers/ industrialists; tourism and aquaculture sector; banks; insurers.

- Non-governmental Organizations (NGOs): national trusts; conservation associations; women's organizations; community-based organizations (CBOs);

- Scientific community: researchers; sociologists; environmental managers; engineers (water, civil, environmental); environmental economists; biologists; climatologists, geographers, oceanographers; teachers; curriculum specialists; media practitioners;

- General public such as the entire coastal population of the Mediterranean Basin (in particular those living in identified hotspots and sensitive areas) and the 176 million tourists visiting the Mediterranean annually.;

At a regional and global level, the stakeholders will be the various signatories to the relevant Multilateral Environmental Agreements (e.g. Barcelona Convention and its Protocols, Convention on Biological Diversity, Basel Convention, United Nations Convention to Combat Desertification, Rotterdam Convention, Stockholm Convention) and all individuals and organizations associated with the achievement of the 2030 Sustainable Development Goals.

The Terminal Evaluation of MedPartnership observed that in spite of the wide stakeholder engagement during implementation of the MedPartnership, the involvement of NGOs, private sector, and Mediterranean countries that are not eligible for GEF funding could have been greater. In the implementation of MedProgramme and its Child Projects, the Lead Implementation and Executing Agencies will foster opportunities to more closely involve NGOs and the private sector in project activities and to engage more closely with non-GEF eligible countries that share the Large Marine Ecosystem (LME) of the Mediterranean Sea. Child Project 4.1 will play an important role in this effort by broadly disseminating information on, and the progress and results of the MedProgramme, stimulating all other Child Projects to design and implement effective stakeholder participation strategies, and promoting involvement in the project's milestone events of relevant NGOs, of the private sector (in particular the tourism industry), and of all non-beneficiary Mediterranean countries.

As regards to specific stakeholders, each Child Project shall undertake its own research and analysis based on respective project objectives to identify partners, target groups and beneficiaries. This analysis is essential to understand who the different players are, their expectations and interest, their characteristics, commitment and constraints, their influence over others, etc. The MedProgramme KM Strategy will support the jump-start and continuous engagement of these groups at the programme level with targeted actions and outreach tools.

Box 2 Glossary: Stakeholders, Beneficiaries, Target groups, Partners

Stakeholders: groups that have a role and interest in the objectives and implementation of a programme or project; they include target groups, direct beneficiaries, those responsible for ensuring that the results are produced as planned, and those that are accountable for the resources that they provide to that programme or project.

Target groups: the main stakeholders of a programme or project that are expected to gain from the results of that programme or project; sectors of the population that a programme or project aims to reach in order to address their needs based on gender considerations and their socio- economic characteristics. When the target group is not sufficiently differentiated, the problem analysis tends to be superficial or too broad and does not allow the effect of the core problem within the various subgroups to be captured.

Direct beneficiaries: usually institutions and/or individuals who are the direct recipients of technical cooperation aimed at strengthening their capacity to undertake development tasks that are directed at specific target groups. In micro-level interventions, the direct beneficiaries and the target groups are the same.

Ultimate (or indirect) Beneficiaries: This is the target group that is expected to be better off as result of the project. The project may provide services directly to this group or more commonly target this group through the strengthening of institutions and organizations (i.e., the direct recipients), which support, increase awareness, or advocate on behalf of the ultimate beneficiaries. The distinction between direct recipients and ultimate beneficiaries is particularly important for donor-funded technical cooperation projects, where donors are primarily concerned with the impact of the project on the latter group. As a result, the project proposal should spell out the intended results of the project beyond just the direct recipients.

Partners: The individuals and/or organizations that collaborate to achieve mutually agreed upon objectives. Note: The concept of partnership connotes shared goals, common responsibility for outcomes, distinct accountabilities and reciprocal obligations. Partners may include governments, civil society, non-governmental organizations, universities, professional and business associations, multi- lateral organizations, private companies, etc.

Source: adapted from UNDP and ILO

2.4 Contributing to the Programme-wide KM

Each Child Project is expected to participate in the common knowledge management (KM) strategy to maximize efficien , ensure good governance of the programme and achieve greater impact at the diffe ent functional levels identified (portfolio level, general public level and po icy- making level).

While specific needs related to the diverse outputs of the individual projects will be analyzed on a case-by-case basis, all CPs are evenly contributing to the various activities illustrated in this document. A standard text included in each Child Project document reflects this approach and is aimed at harmonizing individual contributions. The synergetic approach is also reflected in the allocation of evenly distributed budget under each CP that will be used to support KM activities, production of knowledge and data. CP 4.1 will cover for example the costs of developing the KM platform (including the project management tool), organizing activities and events and producing communications material. Each CP will use the dedicated allocation of funds to, for instance, feed the platform with processed data, produce specific information for the preparation of advocacy material, etc.

3. Why a KM strategy?

> *Much of knowledge management is common sense, but not common practice.* –Unknown

3.1 KM in the literature

Since the early 1990s there has been growing attention to the process of managing knowledge within organizations and businesses, mostly with the objective of improving performance and capitalizing on lessons learned. Pioneering professors Ikujiro Nonaka and Hirotaka Takeuchi, were among the first to investigate the benefits of Knowledge Management in organizations and popularize the concepts of "tacit" and "explicit" knowledge. In their 1991 groundbreaking article "The Knowledge-Creating Company", they affirm that: "In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge". Through the work of dedicated scholars, knowledge management (KM) has gained a consolidated reputation leading to its establishment as a recognized discipline. KM is now viewed as an organization's most valuable and strategic asset deserving to be treated accordingly.

There are many definitions of KM (see Box. 2) but it can be commonly described as the "systematic process to identify, capture, structure, value, leverage, and share an organization's intellectual assets to enhance its performance and competitiveness through a multidisciplinary approach".

Box 3 Definitions

Knowledge Management (KM): the systematic processes, or range of practices, used by organizations to identify, capture, store, create, update, represent, and distribute knowledge for use, awareness and learning across and beyond the organization.

Knowledge Management Systems (KMS): any kind of IT system that stores and retrieves knowledge, improves collaboration, locates knowledge sources, mines repositories for hidden knowledge, captures and uses knowledge, or enhances the KM process.

Knowledge Products and Services: these refer to outputs such as databases, publications, visual material, maps (knowledge products) and outcomes such as awareness raising, information sharing, and capacity building (knowledge services).

Knowledge Assets: are the accumulated intellectual resources of an organization in the form of information, ideas, learning, understanding, memory, insights, cognitive and technical skills, and capabilities.

Source: Stocking, M. et al. 2018. Managing knowledge for a sustainable global future. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC.

Knowledge Sharing: A subset of knowledge management encompassing the exchange of knowledge (information, skills, experiences, or expertise) within and across organizations. Although it can be one- directional, knowledge sharing in most cases is a two-way or multilateral exchange in which the parties learn from each other. Knowledge sharing is more than mere communication because much knowledge in organizations is hard to articulate. In development work, some knowledge sharing has a regional aspect. For example, South-South knowledge sharing refers to exchanges among partners and peers across developing countries.

Source: Steffen Soulejman Janus. 2016. Becoming a Knowledge-Sharing Organization: A Handbook for Scaling Up Solutions through Knowledge Capturing and Sharing. Washington, DC: World Bank. doi:10.1596/978-1-4648-0943-9. License: Creative Commons Attribution CC BY 3.0 IGO

KM is based on two critical activities:

1. the capture and documentation of explicit (technical and codified information) and tacit knowledge (intangible assets intended as human and intellectual capital);

2. their dissemination amongst the intended audiences and stakeholders.

There are two key challenges: knowledge is difficult to assemble, and it is difficult to encourage its use. Many managers see it as a time-consuming distraction from their core role. However, proper knowledge management can reduce risks and increase efficiency through the re-use of proven approaches and avoidance of known pitfalls. It can also produce a virtuous circle as individuals and teams see their contributions recognised and re-used, thus encouraging further participation in the process. Accurate knowledge management is a powerful enabler of organizational learning and an indispensable ally for strengthening the science-policy interface. Writing a report or producing scientific data is only a part of the broader effort to promote environmental sustainability, because without effective sharing of information (in terms of language, tools, channels, etc) and dialogue among all stakeholders involved, the impact of the knowledge produced remains very limited. Considerable progress in raising awareness and improving scientific dissemination has been achieved in recent decades, but the urgency posed by challenges worldwide calls for accelerated and renewed efforts to raise the awareness of policy makers and the public at large about the measures needed to achieve sustainable development and the protection of natural resources.

3.2 KM under GEF programmatic approaches

The policy recommendations emanating from the GEF-7 replenishment[13] clearly refer to knowledge as a "critical asset of the GEF Partnership" and commend "the steps taken to build the GEF's knowledge management systems and practices in GEF-6, as well as the increasing attention to learning and knowledge exchange in GEF projects and programs, notably the integrated approach pilot programs, and in outreach to recipient countries".
The call for more investments in knowledge management systems and practices also stems from recent GEF OPS (Overall Performance Studies) which have found that "the relevance of knowledge management to the GEF mandate has been increasingly recognized, and efforts to improve knowledge management in the partnership have been made on several fronts". The GEF2020 Strategy emphasizes "strategically generating knowledge" as a priority. In 2014, the policy recommendations in the GEF-6 Replenishment Document similarly emphasized "the importance of developing a knowledge management (KM) system that aims to improve the GEF partnership's ability to learn by doing and thereby enhance its impact over time".[14]

At the same time, the GEF-7 Programming Directions commend programmatic approaches (see Box 3) to tackle environmental degradation, making the case for better performance and higher impact of projects within a program. It is noted that "Child projects generally performed better than stand-alone projects on all rating dimensions, especially on execution quality, sustainability and M&E design. Child projects have also improved in design and are now better linked to the overall program in terms of objectives, result based

[13] Ref. GEF-7 Replenishment, Policy Recommendations, Fourth Meeting for the Seventh Replenishment of the GEF Trust Fund, GEF/R.7/18, p.9,www.thegef.org/council-meeting-documents/gef-7-policy-recommendations

[14] Ref. Global Environment Facility Independent Evaluation Office (GEF IEO), OPS6 Final Report: The GEF in the Changing Environmental Finance Landscape. Washington, DC: GEF IEO, 2018, p. 147 www.thegef.org/sites/default/files/council-meeting-documents/GEF.A6.07_OPS6_0.pdf

management and M&E."[15] In addition, OPS6 reports that "multi-focal area projects are better at achieving global environmental and socio- economic outcomes at completion compared to single-focal area projects"[16]. A recent IEO brief[17] further noted that country stakeholders cite "improved knowledge sharing and synergies with other GEF projects among the incentives for joining a program.

Box 4 GEF Programmatic approaches

Programmatic approaches, formalized in 2008[18], are particularly relevant to the Global Environment Facility (GEF), given the long-term nature of the environmental problems the GEF addresses. The GEF-7 Replenishment Programming Directions[19] reaffirms this approach noting that "more complex programs and sets of child projects will tend to offer more entries for development links due to multi-sectoral approach, multi-stakeholder engagements and platforms, and potential for delivering socio-economic co-benefits, along with enhancing the sustainability of the associated investments."

Managing knowledge holistically within programs is a key undertaking, posing additional challenges due to the extra complexity and number of partners and stakeholders involved. The STAP[20] notes that "as the GEF moves further towards integrated approaches, multi-focal projects and impact programs, it is increasingly important to facilitate acquisition of formal and tacit knowledge, organize knowledge assets from complex situations and make them available to inform future investments. The Integrated Approach Pilot (IAP) programs and Impact Programs impose greater needs for connections between 'child' projects and program objectives. KM is the obvious means to tie these connections together, to collect evidence-based learning, and to achieve sustained impact that deliver benefits far into the futu e."[21]

This emphasis from the GEF on both integrated knowledge management systems and holistic multi-focal area programmes, clearly sets the ground for a purposeful, concrete and action- orientated KM strategy for the MedProgramme. During its execution, the MedPCU will make sure that actions are closely aligned with GEF KM-related guidelines[22].

[15] Ref. GEF-7 Replenishment, Programming Directions, Fourth Meeting for the Seventh Replenishment of the GEF Trust Fund, GEF/R.7/19, p.6, https://www.thegef.org/council-meeting-documents/gef-7-programming-directions

[16] Ibid

[17] Evaluation of Programmatic Approaches in the GEF, IEO Brief, The Independent Evaluation Office (IEO) of the GEF, 2017. Full brief at: http://www.gefieo.org/sites/default/files/ieo/signposts/files/programmatic-approaches-2016- brief.pdf

[18] "Programs have been part of the GEF since its establishment. [...] In 2008, the Council endorsed the objectives and principles for programmatic approaches. For the first time, detailed procedures for designing pro- grams were approved, including the introduction of the program framework document (PFD). This resulted in an increase in the submission of programs to the Council and a change in their nature from phased to clustered ones. Importantly, a stimulus to program ownership was introduced by defining programs as "a more strategic level interaction with the GEF" for countries. [...] Until GEF-5, Council discussions about programs centered more on administrative than technical matters. This changed in 2014, when the Council approved a re- vised modality based on program scope: (1) thematic—the program addresses an emerging issue (e.g., a driver of environmental degradation), and (2) geographic— the program focuses on a particular geography. In GEF-6, the GEF introduced the IAPs, which focus on drivers of environmental degradation through supporting broad stakeholder coalitions and scalable activities." IEO BRIEF, Evaluation of Programmatic Approaches in the GEF, January 2018

[19] The full document of the GEF-7 Replenishment Programming Directions is available at: https://www.thegef.org/sites/default/files/council-meeting-documents/GEF-7%20Programming%20Directions%20- %20GEF_R.7_19.pdf

[20] STAP stands for the Scientific and Technical Advisory Panel of the Global Environment Facility. More info: http://www.stapgef.org

[21] Stocking, M. et al. 2018. Managing knowledge for a sustainable global future. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC. p. 3

[22] At the time of the PPG phase (June-September 2018) final GEF guidelines on KM were not yet available. However, due consideration of provisions contained in the GEF Knowledge Management Approach Paper (2015, https://www.thegef.org/sites/default/files/council-meeting- documents/EN_GEF.C.48.07.Rev_.01_KM_Approach_Paper.pdf) and other relevant documents was taken into account when preparing this strategy.

4. Getting there: a modular architecture

> *Knowledge is the new capital, but it's worthless unless it's accessible, communicated, and enhanced.*
> –Hamilton Beazley

In order to achieve the objectives of the KM strategy, three interconnected functional levels have been identified to structure actions, activities and tools:

1. at the **PORTFOLIO LEVEL**;
2. at the **GENERAL PUBLIC LEVEL**;
3. at the **POLICY** and **DECISION-MAKING LEVEL**

Each level is articulated along different objectives. Activities and tools contribute to one or more KM levels and to the two Components of Child Project 4.1 (see Table 3, page 32). They are presented associated with objectives (such as "Monitoring progress towards impact"), but in most cases they are meant to respond to the needs of more than one KM level.

Table 3 Contribution of activities and tools to KM levels and CP 4.1 Components

Activity/Tools	Portfolio Level	General Public Level	Policy Level	CP 4.1 Component 1 Knowledge Sharing and Dissemination	CP 4.1 Component 2 Coordination and Synergies
Project/Program Management Tool	X				X
Database and Visualization tools	X	X	X	X	X
Public portal		X	X	X	
Annual Stocktaking Meetings	X	X	X	X	X
Replication Atlases		X	X	X	X
Trainings for portfolio	X				X
MedProgramme identity	X	X		X	
Med Bulletin/Newsletter	X	X	X	X	X
Storytelling (movies, graphic novels, podcasts, infographics, ...)		X	X	X	
Social media		X	X	X	
Technical reports and scientific publications, IW:LEARN Experience Notes		X	X	X	
MedProgramme Launching event and Final Conference	X	X	X	X	X
IW:LEARN IWC and twinnings, GEF events	X		X	X	X
Global campaigns and processes		X	X	X	
Engagement with testimonials		X		X	
Partnerships	X	X	X	X	

4.1 Portfolio Level

The work of project managers and executing partners is supported through provision of project management tools, monitoring frameworks, trainings and knowledge exchanges. A series of IT- based solutions and knowledge-mining and -sharing techniques are used to capture codified information as well as intangible assets.

4.1.1 Supporting efficient project management

4.1.1.1 Project Management Tool

A multilingual online project management tool[23] (integrated in the KM platform) can respond to the need of supporting efficien project (and programme) management by facilitating communication and information exchange among key actors of the Programme; promote knowledge sharing and peer-to-peer learning; facilitate tracking and monitoring of progress; and meet reporting requirements. A review of options currently available on the market (such as Asana, Freedcamp, Wrike, Slack, Microsoft Project, Basecamp, among others) has been carried out in the preparatory phase of the MedProgramme with a view to inform the selection of the most suitable tool to serve the needs of the portfolio. The final selection and adoption of the tool will occur during the inception phase of CP 4.1.

This decision-support system employs effective data-mining techniques and can be customized to suit the programme's needs, and project managers (and designated project collaborators) will receive specific training on its use and adoption to ensure portfolio-wide consonance.

Key features for such a tool include (but are not limited to): automated reporting, shared calendars, live editing/ collaboration on document development, workflow and task monitoring, Gantt–Chart, time tracking, file management and cloud repository, encrypted security, back-ups, integration with email and other products, mobile apps, and role-based access control and discussion boards.

The majority of respondents to the online survey on projects needs welcomed the idea of utilizing a PMT (and benefitting from ad hoc training). Previous experience from MedPartnership showed little use of a similar tool, however since then these online tools have greatly improved their features and levels of customization, and have been adopted widely to manage complex, multi- partner and multi-lingual projects.

4.1.2 Sharing knowledge and building capacity

One of the objectives of the MedProgramme is to improve the capacity of key regional stakeholders and build socio-economic resilience of impacted communities. To this end, a series of knowledge exchanges will take place at diffe ent levels taking inspiration and practical lessons learned from the GEF Partnership (reflecting the wealth of experience and examples from projects and programs around the world) and other relevant Organizations involved. A milestone activity in this sense is represented by the series of MedProgramme Annual Stocktaking Meetings (see next section).

[23] Project management tools (PMT) are aids to assist an individual or team to effectively organize work and manage projects and tasks. PMTs can either be desktop software, web-based and as a mobile app. Most of the tools are web- based only with a few providing also desktop and mobile based versions, regardless of the kind of version all the work is updated instantly across all devices and accounts.

4.1.2.1 Knowledge Exchanges

At the portfolio level, the MedPCU will capacitate Child Project teams with knowledge and training that can help them to deliver better project results and achieve greater impact. The identification of topics and modalities of exchange (face-to-face, virtual meetings, Communities of Practice, Expert visits, Study Tours, manuals, among others[24]) will be defined at the beginning of the Programme implementation. Preliminary topics could include:

1. Gender mainstreaming and stakeholders' engagement;
2. Scientific communication: bridging the gap between scientists/technical practitioners and media specialists;
3. Lessons learned from the MedPartnership and the ClimVar and ICZM projects.

It is expected that these knowledge exchanges will further empower project stakeholders, enhance cooperation, strengthen the institutions they represent and ultimately influence policies and norms for better management of natural resources in coastal areas.

Additionally, Child Projects will participate in learning exchanges by twinning with other relevant GEF IW projects as facilitated by the GEF IW:LEARN Project (see more at page 44).

Moreover, the MedPCU will support specific capacity building activities foreseen by each Child Project by taking stock and amplifying results through the programme-wide outreach.

4.1.3 Monitoring progress towards impact

4.1.3.1 Annual Stocktaking Meetings (ASM)

The Annual Stocktaking Meetings (ASM)[25] are one of the milestone activities of the MedProgramme. They are major regional events aiming to establish synergistic interactions among Child Projects and with other relevant initiatives and stakeholders, including with all other Mediterranean countries not participating in the MedProgramme.

ASMs hold a two-fold objective: 1) provide a forum for peer-to-peer learning among the Programme portfolio, and 2) catalyze regional and global attention on the progress made towards impact in the entire Mediterranean region.

The ASMs will be an occasion for face-to-face knowledge exchanges, south-south and north- south learning, and promotion of the broader adoption of MedProgramme approaches and solutions. Project managers, stakeholders and beneficiaries will have the opportunity to learn from each other, tap into respective tacit knowledge, and at the same time benefit from experiences and expertise generated by GEF and non-GEF projects and other relevant experts in diffe ent disciplines with diverse backgrounds. Moreover, Child Projects will have the chance to showcase their implementation advancement, discuss problems encountered, and engage with a broad audience of peers and stakeholders. The participation of regional and global media

[24] Useful guidance can be found in the following publications: ""The Art of Knowledge Exchange. A Results-Focused Planning Guide for the GEF Partnership" 2015 (https://www.thegef.org/sites/default/files/publications/GEF_WB_AoKE_English.pdf); "Becoming a Knowledge-Sharing Organization"2016 (http://documents.worldbank.org/curated/en/306761478498267644/pdf/109809-PUB- Box396311B-PUBLIC-DOCDATE-11-2-16.pdf); and

[25] The importance of, and need for stocktaking meetings emerged during the execution of the Strategic Partnership for the Danube and Black Sea Basin, the first GEF experiment in multi-project programs.

will raise public awareness across the Mediterranean countries and beyond. These knowledge exchanges will further enhance cooperation, strengthen the institutions they represent and ultimately influence policies and norms for better management of natural resources in coastal areas. The meetings will involve: all Child Projects and Governments of the participating countries, the MedProgramme's implementing and executing agencies, the GEF Secretariat and Independent Offic of Evaluation (IOE), Convention Secretariats, the UN Environment Global Program of Action (GPA), as well as major regional and global NGOs, representatives of those Mediterranean countries not participating in the MedProgramme; bilateral and multi-lateral donors, IFIs, the UfM, other regional intergovernmental organizations (OSS, etc.), and major private sector coastal area actors, water users, tourism associations and the shipping industry. Representatives of faith- based leaders, women's organizations, youth organizations, fashion/art/sport testimonials, media specialists, among other relevant groups will also be invited to participate in these events, following a dedicated stakeholders' analysis.

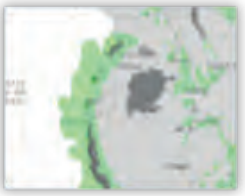
All project partners are expected to attend, and meaningfully participate in, the ASMs. They will be organized by the MedPCU in cooperation with all CPs and country representatives and will take place on a rotation basis in diffe ent project countries.

The ASM design, objectives and architecture will be defined during the first year of MedProgramme operation and approved at the CP 4.1 Steering Committee level. The first ASM will be held during the second year of MedProgramme operation.

4.1.3.2 Data visualization

Data visualization tools effectively support monitoring and reporting through easy visualization of selected data thus taking stock of progress. The table below illustrates possible types of visualization for geospatial and other types of data[26].

Table 5 Visualization examples for geospatial data and other types of data

GEOSPATIAL DATA		
Type of visualization	**Type of data example**	**Visual example**
Pin, symbol (with or without color or icon coding)	Coastal contamination hotspots, industrial wastewater treatment plants, etc.	
Polygon (with or without color coding, with or without color following a scale)	Number of water system clients connected to modern wastewater facilities, Coastal contamination hotspots, Concentration of mercury in coastal waters, Landscape and seascape under improved management, etc.	
Proportional symbol (color and/or size follow a scale)	Amounts of POPs disposed of /recycled on-site, Amounts of Mercury/ disposed of recycled on-site, Volume of industrial wastewater receiving secondary treatment, Volume of treated industrial wastewater reused, etc.	

GEOSPATIAL DATA		
Type of visualization	**Type of data example**	**Visual example**
Heatmap	Concentration of POPs in coastal waters, etc.	
Choropleth maps	Countries implementing comprehensive Integrated Coastal Zone Management, Countries implementing sustainable consumption and production (SCP) approaches, Countries having completed inventories of submarine groundwater discharges, etc.	

OTHER TYPES OF DATA		
Type of visualization	**Type of data example**	**Visual example**
Animated gauge	Real-time progress towards target of 3,250 tonnes reduction in POPs contamination, progress towards target of 50 tonnes reduction in mercury contamination, etc.	
Pie chart	Training distribution by type of training and by gender, etc.	

Note: For each geospatial visualization above, more information could be displayed in overlays (which appear when hovering the mouse).

4.1.3.3 Measuring Knowledge Management impact

> *Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.* –Albert Einstein

Unlike other activities that can be justified in terms of explicit and measurable monetary savings, the added value of knowledge management is more difficult to quantify. Knowledge management benefits are both far reaching and hard to measure as they relate primarily to preventing the waste of money, time and human resources. It is difficult to quantify the expense – in terms of time and money – of finding the right information or reproducing knowledge that already exists, or of using obsolete rather than up-to-date information. The prevention of errors and the savings that are often achieved through better use and reuse of existing knowledge are practically invisible in accounting terms[27].

Nevertheless, it is important to assess the performance of KM efforts and measure the impact of the KM strategy. Measurement, benchmarking and incentives are essential to accelerate the learning process and to drive cultural change. When distilling recommendations to improve the systematic treatment of the need for KM, the STAP recommends that "knowledge management progress indicators should be included in the GEF Results-Based Management system"[28] .

A menu of indicators (both quantitative and qualitative) will be considered by the MedPCU in order to monitor knowledge-related activities (Table 5). Once indicators are discussed and approved during the inception phase of the MedProgramme, related targets can be developed to measure the achievement of the objectives.

Table 6 Possible KM Indicators

What to measure	Indicators	Means of verification
How often are internal users I) accessing, II) contributing to, or III) using the knowledge assets and sharing processes at their disposal?	• Number of connections per day/week/month • Number of knowledge assets downloaded • Number of discussions or messages shared, etc.	Usage data will be provided by the MedProgramme portal analytics
What is the level of internal user satisfaction with the MedProgramme project management tools and how is it impacting their work?	• User friendliness of the tool from 1 to 5 (e.g. interface, design, navigation, etc.) • Technical quality of the tool from 1 to 5 (features, speed, etc.) • Overall level of satisfaction from 1 to 5 • Has facilitated collaboration within your CP from 1 to 5 • Has facilitated collaboration with other CPs from 1 to 5 • Has helped you save time by giving your access to resources from 1 to 5	This can be measured through internal satisfaction surveys that will also provide a venue for users to suggest improvements, (virtual) meetings, etc. Stakeholders should be engaged in a structured manner, for example through interviews, focus groups, or peer learning activities.

[27] Steffen Soulejman Janus. 2016. Becoming a Knowledge-Sharing Organization: A Handbook for Scaling Up Solutions through Knowledge Capturing and Sharing. Washington, DC: World Bank. doi:10.1596/978-1-4648-0943-9. License: Creative Commons Attribution CC BY 3.0 IGO

[28] Stocking, M. et al. 2018. Managing knowledge for a sustainable global future. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC. p. 5

What to measure	Indicators	Means of verification
How often are public users IV) accessing the MedProgramme portal, and V) accessing the knowledge assets?	• Number of visits, • Average time spent • Number of downloads • Pages visited • Number of recipients opening the newsletter • Ease of finding knowledge esources on the portal from 1 to 5, etc.	Usage data will be provided by the MedProgramme portal analytics. A feedback form can also be available at all time on the portal.
Is MedProgramme producing quality knowledge assets?	• Level of satisfaction of stakeholders with knowledge asset • Are stakeholders using knowledge assets in their work	This can be measured through a stakeholder survey.
Is MedProgramme contributing to the GEF knowledge base?	• Knowledge assets shared on other GEF platforms (IW:LEARN and others)	This will be monitored by the MedPCU.
Is MedProgramme building the capacity of key regional stakeholders?	• Key regional stakeholders have been identifie • Number of knowledge exchange activities implemented • Number of participants at the Annual Stocktaking meetings	This will be monitored by the MedPCU.
Is MedProgramme participating / contributing to global and regional campaigns, events and processes?	• Number of regional and global events with MedProgramme participation (as presenter) • Number of #MedProgramme mentions on SDG social media channels	This will be monitored by the MedPCU.
Is MedProgramme getting the attention of the media?	• Number of media hits in target languages / countries • Number of media hits in first tier media outlet • Number of Op-eds placed, etc.	This can be monitored by a media agency for a fee or with free tools such as Google Alerts.
Are Parties to the Barcelona, Stockholm, Minamata, and Basel Conventions VI) aware of the MedProgramme outputs / outcomes? VII) using the MedProgrammes outputs?	Number of briefing o ganized with Parties to the Barcelona Convention Number of countries attending the briefin Number of countries using MedProgramme outputs	This will be monitored by the MedPCU and country representatives can be surveyed through face-to-face interviews, etc.

4.2 General Public Level

Civil society, media, and representatives of non-scientific community are informed about MedProgramme's results and engaged in knowledge sharing activities both as brokers and beneficiaries

4.2.1 Communicating progress and results

The KM strategy foresees a large component on communications and outreach aimed at ensuring that results are properly shared with the intended audiences to maximize, replicate and scale up best practices and lessons learned.
A number of traditional communications activities (such as newsletters, brochures, etc.) will be blended with innovative and creative approaches (graphic novels, documentaries, podcasts, etc). to ensure visibility of the Programme.

4.2.1.1 Knowledge Management Platform

The engine of the KM strategy is enshrined in a powerful web-based knowledge hub comprised of a

data and information management system (with both public and restricted access) and a combination of visualization tools to serve the portfolio's needs.

The platform will serve as central repository of all the data generated by the Child Projects and will be designed with a view to the following strategic knowledge management objectives:

- Facilitate information sharing and promotion of the Programme achievements among the partners and the regional stakeholders.
- Reflect the indicators of all Child Projects in the establishment of the relevant tools and frameworks, and seek coherence with efforts underway in the GEF's Chemicals and Waste Focal Area to create a platform to assist countries in meeting the reporting requirements of the Stockholm and Basel Conventions.
- Support policy development through its data collection and management tools.
- Strengthen the science-policy interface, incorporating relevant data already generated by the countries, with the clear understanding that no data would be disseminated without the permission of its owner.
- In the long term, become a tool of the Contracting Parties of the Barcelona Convention.
- Assist countries in meeting their IMAP reporting requirements.
- Ensure that the highly valuable legacy of the MedPartnership, which produced a substantial volume of knowledge and information as well as a number of tools and guidelines, lessons, and experiences, is carefully preserved and easily accessible, including translations of key documents.

Such an integrated platform should host: 1) a project management tool; 2) a public/outward-facing portal, including sub-webpages for each CP; 3) visualization tool(s) to display a digitalized representation of data through GIS and other suitable means; and 4) a database for raw/primary data.

1. The project management tool was described previously (page 33)
2. The outward-facing MedProgramme portal will be populated with key information showcasing progress towards impact and the contribution of the MedProgramme to global and regional environmental goals. The portal will serve as a gateway for information related to international waters, coastal zones, biodiversity and climate resilience in the Mediterranean sea basin, bringing together information from GEF and non-GEF projects (for example results from the MedPartnership project will be made available and possibly re-packaged in new material) for broad dissemination and cross-fertilization (several platforms identified in the Baseline can be cross-referenced from the MedProgramme platform to reach out to vaster audience and stakeholders). It will closely dialogue with the GEF's new portal (corporate database for projects, reports, and documentation) and the IW:LEARN website. The MedProgramme portal will feature a highly user-friendly interface including effective search functions, filters (such as drop-down menus) and analytical capabilities. Each Child Project will have dedicated sub-pages about their specific activities. CPs are expected to provide regular information (in diffe ent multimedia formats) to generate content for their respective project sub-pages and the overall programme portal. The MedPCU will be responsible for curating the information provided and packaging them for the intended audiences.

3. Visualization tools[29] will be used to display spatial and non-spatial data (be they quantitative or qualitative) generated by the projects. Data need to be stored and mined in a way that makes them readily available not only to track progress but also to support decision making by the diffe ent stakeholders. GIS (geographic information system[30]) will be largely used as well as textual information, photos, story maps, pie charts, graph charts, infographics, map dashboards, trend line charts, among others (see examples in Table 5). Users can build a query based on specific criteria such as geographic area, data layer or specific indicators. Alternatively, users can simply browse for information using the icons provided. There are a number of visualization software tools available both as open source and commercial options. A number of products (with license or open access) could be suitable for integration in the MedProgramme knowledge platform, such as Esri ArcMap and ArcGis, Geonode, QGIS, MapX[31] and Google Earth Outreach[32] . The final selection will be made during the inception phase.

4. Raw/primary data will be stored in a database with flexible restricted/public access. A shared data model/protocol should be agreed at the beginning of the Programme to ensure that projects will compile relevant data with a standardized approach and enable a harmonized data entry system (the INSPIRE directive[33] could be taken as reference to harmonize the process). Issues related to open data, ownership, quality and review of data will be addressed in this exercise; a mapping of voluntary standards can help to evaluate feasible options. Contributors of data are all stakeholders of the MedProgramme, including the Executing Partners. Child Projects are responsible for producing their own data.

4.2.1.2 MedProgramme identity

In terms of visibility, the MedProgramme will be presented in a holistic and coherent way through the development of clear vision statement and positioning, visual identity, logo design, etc. showing consistency and integration across the portfolio. At the same time, each Child Project will be granted individual identities within the overall MedProgramme-branding in order to promote specific activities and benefit from ad hoc services. This will entail the design of consistent logos for each CP, creation of sub-websites within the Programme platform, organization of tailor-made trainings, preparation of specific publications, social media services, among others.

The MedPCU will develop a proposal[34] in close consultation with project teams and, once adopted at the Steering Committee level, Child Projects are expected to use it consistently.

[29] Data visualization is the presentation of data in a pictorial or graphical format, and a data visualization tool is the software that generates this presentation. Data visualization provides users with intuitive means to interactively explore and analyse data, enabling them to effectively identify interesting patterns, infer correlations and causalities, and supports sense-making activities.

[30] The information about location associated with observation and statistical analysis is called geographic information.

[31] MapX was developed by UN Environment, the World Bank and the Global Resource Information Database (GRID-Geneva) to capitalize on the use of new digital technologies and cloud computing in the sustainable management of natural resources. More info: www.mapx.org

[32] A recent partnership has been established between UN Environment and Google.

[33] The INSPIRE Directive aims to create a European Union spatial data infrastructure for the purposes of EU environmental policies and policies or activities which may have an impact on the environment. This European Spatial Data Infrastructure will enable the sharing of environmental spatial information among public sector organisations, facilitate public access to spatial information across Europe and assist in policy-making across boundaries. INSPIRE is based on the infrastructures for spatial information established and operated by the Member States of the European Union. The Directive addresses 34 spatial data themes needed for environmental applications. The Directive came into force on 15 May 2007 and will be implemented in various stages, with full implementation required by 2021. More info: https://inspire.ec.europa.eu

[34] In line with both UN Environment and GEF policies on branding and use of logos.

4.2.1.3 Newsletters (Med Bulletin)

Periodic MedProgramme Bulletins will be published (every six months or on a quarterly basis) to showcase progress of the Programme as a whole and of individual Child Projects, including highlights of results, success stories and project events, and relevant global, regional and national relevant meetings and events. It will be one of the primary tools for tracking achievement of targets and milestones for all Child Projects, based upon the corresponding results frameworks. Bulletins will feature a "journalistic" style making the content appealing for a wide range of audiences. Therefore, all CPs are expected to contribute to these Bulletins with diffe ent types of inputs in order to document their activities and progress, such as high-quality pictures, articles, statistics, quotes, interviews, footage, among others.

4.2.1.4 Storytelling for advocacy

A number of traditional storytelling instruments will be blended with innovative and creative approaches to increase dissemination and advocacy efforts. Particular emphasis will be given to the preparation of high-quality short movies, animations and documentaries, graphic novels[35], documentaries, podcasts[36]/ radio programmes, infographics, art exhibitions, digital interactive stories/articles/interviews, professional photos, microblogging, e-books, art exhibits, among others. The MedPCU will collect diffe ent multimedia material from the CPs necessary to prepare these products. Translations of key communications outputs will be carried out in English, French and Arabic to ensure ample dissemination in the participating countries. Specific translations in other national languages will be sought pending budget constraints and upon due consideration of stakeholders' needs.

4.2.1.5 Social Media

Facebook, Instagram, YouTube and Twitter are four social media tools suggested for use by the MedProgramme. Development of timely and appropriate content and material to populate these channels is indispensable to achieve the desired impact. CPs will be prompted to contribute with relevant and ad-hoc information, pictures, statistics and other data to enrich the social media campaign.

The use of hashtags will be coordinated with the GEF IAs and EAs and project and country representatives of the Programme in support also of other related initiatives and campaigns.

The registration on the above-mentioned channels (or a selection of them) will take place at the beginning of the Programme and content population will start as soon as data and information from the projects becomes available.

4.2.1.6 Participation to global campaigns, events and processes

Experiences and lessons learned from the MedProgramme will be of relevance for a number of global processes shaping polices related to the sustainable management of natural resources in coastal areas. In turn, global processes are important for the MedProgramme to align with national, regional and global priorities and be receptive to new "waves" (policies, socio-economic trends, tech advances, etc). MedProgramme activities in this sense will build on existing successful campaigns, for example the "ICZM Mediterranean awareness-raising Strategy (MARS)". Contribution to these events will take diffe ent forms, ranging from physical attendance, production of specific products, content and multimedia material to be packaged in suitable products, among others. Examples of processes and events that could be relevant for the MedProgramme include the Agenda 2030 and SDGs conferences, the United Nations Environment Assembly (UNEA), Mediterranean-wide policy-dialogues, the UN Environment campaigns against chemical and plastic pollution, the EU Development Days

[35] Graphic novel or graphic journalism" is an increasingly popular literary genre that uses comics and poignant texts to explain complex matters. It is a compelling way of storytelling for scientific dissemination.

[36] A mix of radio and audiobooks, podcasts are a very incisive and entertaining way of sending messages across and inform and spark debate on pressing issues. They are easy to share and can reach a vast and varied audience.

and other key gatherings at the EU level, International Days (such as Coast Day, Environment Day, World Water Day, Health Day, etc), among others.

4.2.1.7 Engagement with media and testimonials

The MedPCU will reach out to a diffe ent number of media outlets and journalists with a view to establish long-lasting collaborations. To this end, CPs will be asked to liaise with national and local media of the project countries (for instance, by providing the MedPCU with a list of relevant contacts). A series of direct interactions with communications specialists, media experts and social media influencers is foreseen throughout the duration of the Programme to increase mutual understanding and flow of information. The MedPCU will also reach out to renowned personalities from diffe ent realms (such as art, sports, entertainment or fashion) to invite them to serve as ambassadors for the Programme and raise awareness about the main environmental challenges (and solutions) in the coastal areas of the Mediterranean. CPs will be prompted to suggest names, and facilitate contacts when possible, of suitable and potential "goodwill ambassadors" of relevance in the region.

4.2.1.8 Launching/Closing events of the MedProgramme

The design and practical details of these events will be planned during the inception phase of the MedProgramme. Considering the staggered initiation timeframes of the diffe ent Child Projects, a launching event of the MedProgramme could be organized in the form of a press conference to coincide with the kick-o` of the Support Child Project 4.1. Basic communications material about the objectives of the MedProgramme (such as visual identity, slogan, mission statement, description of Child Projects, informative brochure, short promo video, basic online pages, etc) should be prepared prior to the launching event. Participation to these events will not necessarily be open to the large public, however the information and messages emanating by these two occurrences will be relevant for a general audience as well.

4.2.2 Forging and nurturing Partnerships

> *If you want to go fast, go alone. If you want to go far, go together.* –African Proverb

Opportunities to enlarge the existing partnership of the MedProgramme should not only be welcomed, but actively sought. By reaching out to diffe ent stakeholders – individuals, organizations or companies – and engaging them directly in selected MedProgramme activities, a series of distinct advantages will be produced. These include:

- Contributing to transformational change: groups that are likely to evade the radar of "usual suspects" mapping (intended as classic stakeholders for environmental projects) will be intentionally targeted, moving away from the old-fashioned top-down view of passive beneficiaries of knowledge to a new vision in which conscious citizens are regarded as source of knowledge and potential allies in the strive against environmental degradation. For example, a collaboration with Faith-Based Organizations[37] to prepare a workshop or joint statements disseminated through their networks would tremendously increase the chances to inform and influence a large portion of general public that is not reached by traditional channels. Another possibility is a partnership with a fashion magazine to sensitize readers about sustainable business in coastal areas.

[37] Faith-Based Organizations could be a very important stakeholder group to engage in environmental decision-making. "Religion plays a significant role in the understanding and shaping of attitudes, opinions and behaviours including for management and use of the environment and natural resources". UN Environment Foresight Brief 008, April 2018.

- Facilitating a more rapid achievement of the Programme results: for example, a partnership with tourism institutions in the diffe ent participating countries could accelerate the adoption of more sustainable touristic habits to reduce pollution load into water bodies and increase the acceptance and reuse of treated freshwater for human consumption.

- Raising the profile of the GEF investments in the Mediterranean and of the countries and partners participating to the effort. A partnership with National Geographic for instance, or with national TVs and radio stations, could enhance the dissemination of knowledge and results generated by the MedProgramme as well as by related initiatives and policy-frameworks, like the Barcelona Convention.

- Further stimulating a sense of ownership and contributing to the sustainability of Programme results: making tight connections for example with the Bibliotheca Alexandrina to host a permanent or temporary exhibition about the MedProgramme, which could then travel around museums of the entire Mediterranean basin (starting with participating countries), and thus ensure that the legacy of the MedProgramme will continue to inspire people even after the programme closure.

- Providing additional means to further expand Programme activities: by adding ad hoc co-financing (cash or in-kind) to produce, for example, through a publication or a short movie for the general public, the MedProgramme could gain positive returns in terms of resources and reputation. Bringing together renown artists from project countries and the private sector to jointly produce a graphic novel on the MedProgramme, for instance, could be rewarding in many regards.

The MedProgramme holds the possibility to create a fertile hub for diffe ent partners to come together and share experiences and solutions to common challenges related to environmental degradation and pollution of freshwater/marine waters in the region. The private sector is a prime stakeholder in this effort and should be always engaged to cross-fertilize the MedProgramme's interventions. As emphasized in the GEF 2020 strategy: "Coordination failures abound in environmental management, in part because of the prevalence of 'tragedy of the commons' issues. Moreover, the complexity of environmental challenges requires that actions be taken simultaneously by many diffe ent stakeholders to be effective; [...] Partnerships with the private sector, civil society, research groups, and indigenous and local communities are vital in this regard."[38]

The importance of tightening relations with the private sector is again stressed in the GEF 2020 strategy: "The IAPs (Integrated Approach Pilots) will give special attention to engaging the private sector and improving evidence-based design and implementation to enhance learning and the effectiveness of the IAP interventions."[39]

Furthermore, in strengthening collaboration with a vast and diverse, yet relevant, groups of stakeholders, the MedProgramme will contribute to the vision encapsulated in the Sustainable Development Goal 17: "A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level."

[38] 2020 Strategy for the GEF, April 2015. p.27 Full document: https://www.thegef.org/sites/default/files/publications/GEF-2020Strategies-March2015_CRA_WEB_2.pdf

[39] 2020 Strategy for the GEF, April 2015. p.22 Full document: https://www.thegef.org/sites/default/files/publications/GEF-2020Strategies-March2015_CRA_WEB_2.pdf

4.3 Policy and Decision-Making Level

The Contracting Parties of the Barcelona Convention, relevant decision makers in the region, technical practitioners as well as GEF Implementing and Executing Agencies are supported in their work through contributions to relevant regional policy processes and related GEF initiatives (particularly through the IW:LEARN project).

4.3.1 Strengthening the Science-Policy Interface (SPI) and Influencing Decision-Making

4.3.1.1 Replication Atlases

A number of highly informative National Replication Atlases, translated in relevant languages, will be produced to stimulate replication of successful practices demonstrated by the Programme and encourage regional and global dialogue. Broader adoption and replication of the successful policies, practices and technologies implemented under the Programme will be promoted through these means, highlighting areas and situations where replication of the Programme's demonstrations should preferentially occur.

Relevant results of Child Projects will be featured in the Atlases and the MedPCU will inform about the participatory process to collect and present the inputs.

4.3.1.2 Agenda 2030 and the Sustainable Development Goals

The MedProgramme will produce regional environmental benefits contributing to the Sustainable Development Goals, in particular the goals on responsible consumption and production (SDG 12), climate action (SDG 13), life below water (SDG 14), and life on land (SDG 15), which reflect to a large extent the GEF's core mission. By fighting environmental degradation in coastal areas and improving livelihoods, the MedProgramme is supporting beneficiary countries, and all populations living in the Mediterranean basin, to increase their capacity to build climate resilience, reduce pollution from nutrients and persistent toxic substances (POPs and Mercury), sustainably manage coastal freshwater and marine resources, protect biodiversity, and restore coastal ecosystems. Moreover, its focus on improving freshwater quality and quantity will directly contribute to SDG 6 on water and sanitation, while a dedicated gender strategy will ensure compliance with the SDG 5 on gender equality and women's empowerment.

4.3.1.3 Supporting countries to implement IMAP

Since the 2005 Mediterranean TDA, the situation in the Mediterranean in terms of transboundary issues in the marine and coastal areas has evolved. In terms of monitoring, the adoption in 2008 of the EU Marine Strategic Framework Directive (MSFD) led to the development in EU countries of national monitoring plans based on a set of detailed common criteria and indicators. UN Environment/MAP initiated the Ecosystem Approach in 2008, which led to the adoption of 11 Ecological Objectives, 61 indicators and definition of GES and targets in 2012 at the COP17of the Barcelona Convention. This led to the Integrated Monitoring and Assessment Programme (IMAP) for the Mediterranean, which was adopted in 2016 at the Barcelona Convention COP19. IMAP is the best available common set of tools for informing the science-policy interface (SPI) which is critical to achieve meaningful progress on stress reduction. Now the challenge is for countries, especially the non-EU countries, to redesign their national monitoring programs in line with IMAP and the 23 common indicators covering also the areas beyond national jurisdiction. Regarding monitoring of pollution, countries will build upon their MED POL monitoring program and database that has been in existence since 1999, with agreed parameters and stations in key hotspots and coastal areas. However, very few data exist for the majority of the common indicators, other than some contaminants, nutrients and chlorophyll data, particularly in the GEF eligible countries of the Mediterranean.

4.3.2 Contributing to the GEF knowledge base

The results produced by the MedProgramme (hot spots of coastal/marine pollution and habitat degradation, implementing ICZM and nexus planning, conjunctive surface water and groundwater management, protecting coastal groundwater-related ecosystems and coastal/marine biodiversity) will substantially contribute to the GEF knowledge base and to relevant GEF process, events and activities involving the four focal areas of International Waters, Chemicals and Waste, Biodiversity, Climate Change. Technical practitioners and scientists are also addressed as direct consumers of technical reports and assessments, and they are key agents to strengthen the science-policy interface.

4.3.2.1 Technical reports and scientific publications

The MedPCU will ensure that relevant scientific reports and scientific peer-reviewed publications are prepared by the various CPs providing technical information about the achievements of the Programme.

4.3.2.2 Synergies with the GEF IW:LEARN and LME:LEARN Projects

The MedProgramme will closely collaborate with the GEF International Waters Learning and Resource Exchange Network (IW:LEARN) Project[40] to facilitate uptake of lessons learned and knowledge exchange from/to the MedProgramme portfolio.

Cooperation in the following activities will be particularly addressed:

- Participation to the GEF International Waters Conferences (landmark biannual events of the IW portfolio). The first MedP ogramme contribution is expected for the 10th edition of the IWC in 2020.
- Production of Experience Notes (short case studies) produced by Child Projects to showcase worthy results and disseminated through IW:LEARN channels and the MedProgramme KM platform. The format of Experience Notes is standard (https://iwlearn.net/documents/experience-notes)
- Participation to IW:LEARN Twinnings with other GEF relevant projects and programs.
- Contribution to IW:LEARN.net with specific content (i.e. data visualization).
- Contribution to social media, news, events, etc.
- Participation to GEF Communities of Practice (CoPs) on IW, CW, when relevant.

4.4 Governance

Both the strategy and its implementation are critical to successful exploitation of knowledge. Many KM strategies fail not because there is something intrinsically wrong with them, but because they are not well implemented.
There must be a good strategy, but also appropriate organizational structure, systems, resources and the right people to execute it.
It is crucial to create teams that are centers of excellence for their specific knowledge skills and experience. Also, the appropriate technical equipment (hardware and software) and adequate expertise are key ingredients to ensure expected results. The GEF STAP concurs with the need for adequate resources noting that “KM delivers cost-efficiencie and savings, for example, reduced failure of projects, and it needs up-front resourcing to cover for additional time, specific tools and database needs. [...] KM professionals are essential in applying the discipline, including creating tools and products that help establish KM as a standard practice throughout the organization[41]” .

[40] More info at www.iwlearn.net

The KM strategy of the MedProgramme will require diffe ent sets of expertise for its execution. It is anticipated that the following professional profiles will be required throughout the duration of the programme (either full-time and/or part-time):

- Knowledge Management Specialist (to coordinate the implementation of the KM strategy)
- Communications assistant (to support the execution of the communications plan)
- Data Analyst (to help harmonize data produced by Child Projects and maintain the database)
- Web Developer (to develop the KM platform)
- IT Specialist (to administer the IT-based platform and systems)
- Experts in copy-editing, video-making, graphic design, translations, etc. to be contracted as needed.

These and other services will be provided by the staff of the MedPCU, consultants hired to carry out specific tasks and by outsourcing the work to companies (such as for the project management tool, hosting providers, licenses, etc).

"Knowledge-sharing is at the crossroads of core and support functions"[42] . Knowledge-sharing tasks and responsibilities should be as much as possible integrated in the jobs descriptions and terms of reference of projects' executing teams.

As efforts leading to an effective knowledge management system can be seen as time-consuming and not immediately benefitting the project outputs, there must be a good system in place to incentivize project teams to dedicate time and resources to KM. As noted by the GEF Strategic Technical Advisory Panel (STAP[43]): "there needs to be better recognition for KM inputs, achievements and publicity. Rewarding projects at mid-term, for example, for demonstrating the use of knowledge to improve and/or adapt the project to meet project objectives may be an effective incentive". The form of these rewards can vary, but in the case of the MedProgramme they can range for instance from prizes announced at the Annual Stocktaking Meetings, to public recognition mentions (internally or externally the portfolio, such as in the Med Bulletins), among others.

[41] Stocking, M. et al. 2018. Managing knowledge for a sustainable global future. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC. p. 9

[42] Steffen Soulejman Janus. 2016. Becoming a Knowledge-Sharing Organization: A Handbook for Scaling Up Solutions through Knowledge Capturing and Sharing. Washington, DC: World Bank. doi:10.1596/978-1-4648-0943-9. License: Creative Commons Attribution CC BY 3.0 IGO, p. 24.

[43] Stocking, M. et al. 2018. Managing knowledge for a sustainable global future. Scientific and Technical Advisory Panel to the Global Environment Facility. Washington, DC. p. 9

5. Legacy and Sustainability

> *Share your knowledge. It is a way to achieve immortality.* –Dalai Lama XIV

The benefits arising from managing knowledge properly are both far reaching and hard to measure. This strategy represents one of the first attempts to manage knowledge holistically within a GEF-financed program with multi-focal areas Child Projects, and the role played by the Support Child Project 4.1 in implementing the programme-wide KM strategy is innovative yet challenging. The envisaged result is to effectively support portfolio coordination, provide beneficiary countries with long-lasting capacity and tools to improve national and transboundary coastal ecosystems, and enrich the GEF Partnership with replicable solutions and lessons learned for future interventions in the Mediterranean region. Its success will be determined by the commitment and ownership of all executing partners and stakeholders, in addition to adequate resources and means in place. Its sustainability will translate into reinforced capacity (information, expertise, awareness...) of MedProgramme stakeholders to address environmental challenges making use of a modular knowledge hub which will continue to evolve after the programme ending.

The contracting parties of the Barcelona Convention will be the custodians of the KM structure implemented for the MedProgramme and will carry forward the legacy of the MedProgramme by supporting informed decision-making, paving the way for more investments and interventions, and encouraging broader adoption and knowledge transfer to improve environmental security in the coastal areas of the Mediterranean.

GEF/UN Environment "Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security" GEF ID 9607

Implementing Agencies

UN environment

European Bank for Reconstruction and Development

Leading Executing Agency

UN environment
United Nations Environment Programme

Mediterranean Action Plan
Barcelona Convention

Executing Partners

United Nations Educational, Scientific and Cultural Organization

International Hydrological Programme

European Investment Bank

IUCN

WWF

Global Water Partnership

PAP/RAC

Regional Activity Centre for Sustainable Consumption and Production

Plan Bleu

SPA/RAC

ANNEX Q

THE MEDITERRANEAN SEA PROGRAMME:
ENHANCING ENVIRONMENTAL SECURITY (2019 – 2024)

GENDER MAINSTREAMING STRATEGY

UN ENVIRONMENT/MEDITERRANEAN ACTION PLAN
OCTOBER 2018

This strategy was prepared during the Project Preparation Grant (PPG) phase of the MedProgramme (June – September 2018)

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1. *Introduction*

1.1 *Defining Gender Mainstreaming – from 1997 to 2017*

In 2017, shortly after the 23rd Conference of the Parties (COP) in Bonn concluded with the 'Fiji Momentum for Implementation', the United Nations Framework Convention on Climate Change (UNFCCC) announced its pioneering Gender Action Plan. The COP23 Presidency underscored the priority of the Plan[1] to increase awareness of, and generate support for the development and effective implementation for, gender-responsive climate and environmental action. Showcasing not only the consensus of the State Parties on these key issues, this critical achievement encapsulates the growing international efforts towards gender mainstreaming and the integration of gender equality perspectives in sectoral policies and programs, since articulated by the UN Economic and Social Council (ECOSOC) twenty years ago.

In July 1997, the Group of Specialists on Mainstreaming, appointed by the ECOSOC, laid out the tenets of gender mainstreaming, which continue to spur and inform UN action:
"Gender Mainstreaming is the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and social spheres so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal is to achieve gender equality".[2]

Elaborating upon this definition, the Division for the Advancement of Women on Gender Mainstreaming, added:
"Gender Mainstreaming requires more than a quantitative change in numbers of women and men participating in, or benefiting from, policies and programs. It requires a transformation of all sectoral policies at all levels, and of institutions, organizational practices, attitudes and systems that shape them so that they fully consider the realities, needs, and views of women."[3]

The conceptualization and definition of Gender Mainstreaming, as presented above, derives from, and builds on, the preceding conversation of inclusion of women and gendered considerations in development policy. To elucidate, it does not represent a 'totally' new approach – but rather, a unique take on gender and developmental policy antecedents dating back to the early 1970s. Functioning as a pivot, gender mainstreaming builds on the Gender and Development (GAD) approach, which differentiates itself from the preceding Women in Development (WID) and Women and Development (WAD) approach, by discarding the notion that gender perspectives should automatically entail the demarcation of women as a target group. The image below[4] visualizes the timeline of these different approached leading up to gender mainstreaming, the approach chosen for the Mediterranean Sea Program (MedProgramme): Enhancing Environmental Security Gender Strategy towards

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1 See *Recommendations of the Subsidiary Body of Implementation on Gender and Climate Change* (Agenda No. 20). UNFCCC. (2017)

2 See *Gender Mainstreaming: An Overview* for more. United Nations. (2002)

3 *Ibid.*

4 The image was developed by the author from: Rathgeber, E. "WID, WAD, GAD: Trends in Research and Practice". International Development Research Centre (Ottawa). Paper Presentation at the meetings of the Canadian Institute for the Advancement of Women held in Quebec City. (1988)

incorporating gender-responsive project outcomes, gender-sensitive policy formulations, and gender-aware decision-making.

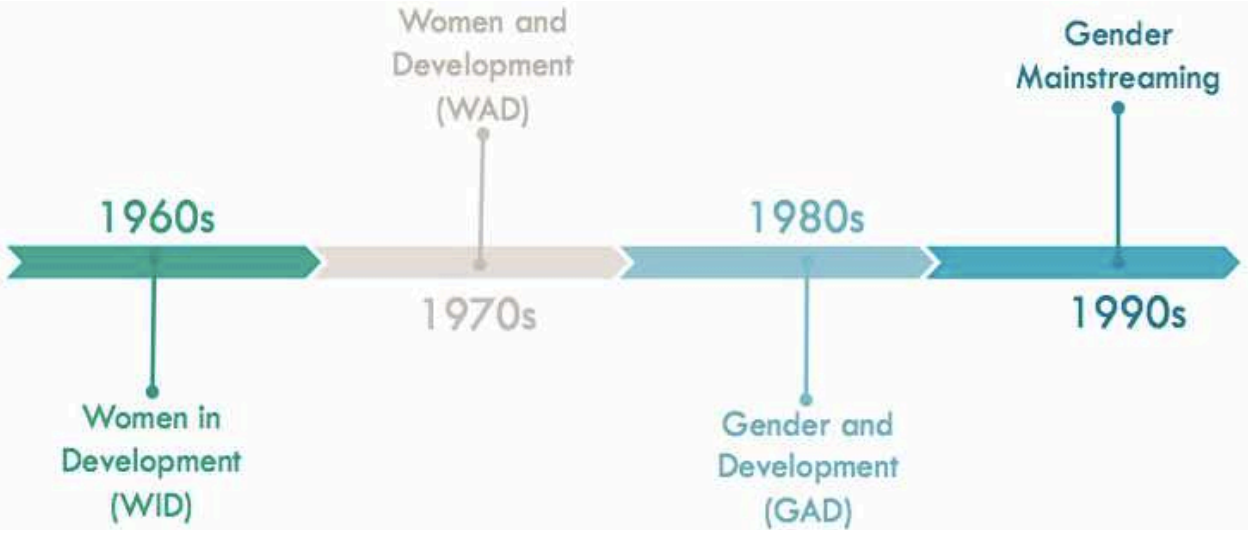

Figure 1: Timeline towards present-day Gender Mainstreaming approach. (adapted from Rathgeber [1988] by author)

1.2 *Global Environment Facility (GEF) and UN Environment*

Keeping with the above mandate of gender mainstreaming and promoting women's empowerment, both the GEF and UN Environment have prioritized delivering inclusive and gender-responsive environmental results, and adaptation and mitigation solutions towards climate risks.

Having launched its initial gender policy in 2011, the GEF approved a reinforced policy in November 2017[5] at the 53rd Council Meeting, shifting the focus from a *'gender-aware, do no harm'* approach to a *'gender-responsive, do good'* approach. This requires robust standards in the design, implementation and evaluation of GEF activities, and introducing measures that will allow the GEF, over time, to better leverage strategic opportunities to address gender gaps critical to the achievement of global environment benefits.[6] More recently, the GEF-7 Programming Directions, prepared by the Secretariat in the April 2018 Stockholm meeting further clarifies the GEF's evolving and progressive gender strategy – by providing action points for each GEF focal point.[7] It lays out clear gender standards for each domain under the GEF, and for the MedProgramme, gender directives of the:

a. Biodiversity focal area (such as: assessments to understand gender-disaggregated biological resource, providing women and other natural resource-dependent groups equal partnership in protection management);
b. Climate Change focal area (such as: incorporating action points to address the different climate risks faced by men, women, boys and girls and providing adaptation alternatives that improve the status quo);

[5] See here for the latest GEF Gender Mainstreaming guide (EN). GEF. (2017) (publication)
[6] "A new Policy on Gender Equality for the GEF". GEF official website. (2017) (news update)
[7] GEF-7 Replenishment – Programming Directions. Meeting Report from the 4th meeting held at Stockholm, Sweden for the Seventh Replenishment of the GEF Trust Fund, in April 2018.

c. Chemicals and Waste focal area (such as: understanding the socioeconomic dynamics that expose men and women to different chemicals, as well as their biological implications),

d. IW focal area (such as: gender assessments and social analysis during project preparation, and differentiated reporting of output indicators and additional measures based on the GEF's Gender Action Plan[8])

are particularly relevant and have been incorporated as action points for the operationalization for this Strategy.

UN Environment recognizes the role of gender equality as a 'driver of sustainable environment development'[9], particularly to enhance environmental security and climate resilience; to assuage the stresses on natural resources and dependent communities, including unsustainable management of coastal resources; and to preserve the health of large marine ecosystems (like the Mediterranean) which provide environmental and economic services to coastal populaces. Overall, the organization focuses on the increased visibility and capacity of vulnerable groups in sustainable development policy- and decision-making. To that end, the agency has produced a lessons-learnt report[10], through gender case study compilation, on issues homologous with the overall MedProgramme agenda: gender integration in Integrated Coastal Zone Management (ICZM) and Integrated Water Resources Management (IWRM), marine and coastal pollution, coastal disaster risk reduction and climate change adaptation, coastal developmental planning, and advocacy for gender-inclusive marine ecosystem management and research.

1.3 *The MedProgramme Gender Mainstreaming Strategy*

The MedProgramme represents a pioneering effort, being the first GEF programmatic multi-focal initiative in the Mediterranean region, aiming to operationalize agreed-upon priority actions to reduce major transboundary environmental stresses in its coastal areas, while strengthening climate resilience and water security, as well as improving the health and livelihoods of coastal populations. The MedProgramme will be implemented in nine beneficiary countries sharing the Mediterranean basin: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia. The Lead GEF Agency is UN Environment[11]. Its eight Child Projects[12] cut across four different Focal Areas of the GEF (Biodiversity, Chemicals and Waste, Climate Change, and International Waters), and involve a wide spectrum of developmental and societal sectors, ranging from banking institutions, the private sector, government and non-government bodies, industry, research, media, and various other organizations.

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[8] *Ibid*, p. 55.

[9] *Gender Equality and the Environment: Policy and Strategy*. UN Environment. (2015)

[10] *Regional Seas Reports and Studies No. 207* (forthcoming). Marine and Coastal Ecosystems Unit. UN Environment. (2018)

[11] GEF Lead Agency: UN Environment. Other GEF Agencies: European Bank for Reconstruction and Development (EBRD). Executing Partners: UNEP/MAP, European Investment Bank (EIB), UNESCO International Hydrological Program (IHP), Global Water Partnership (GWP) Med, World Wildlife Fund (WWF), MEDPOL, UNIDO, and IUCN.

[12] At the time of its approval in 2016, the MedProgramme comprised of seven Child Projects. Subsequently, UN Environment/MAP developed a Mediterranean-focused climate change adaptation project, for financing through the Special Climate Change Fund (SCCF). It was agreed by the UN Environment/MAP, UN Environment and the GEF that this SCCF project would be managed, for all intents and purposes, as an additional Child Project of the MedProgramme. Hence, the number of Child Projects now stands at eight.

Seeking to maintain funding agency (GEF) and lead agency (UN Environment) organizational priorities outlined above, as well as preparing for a proactive GEF-7 ready portfolio, this Gender Mainstreaming Strategy, developed in the Project Preparation Grant (PPG – between June to September, finalized in October) phase, will: provide tailored action points to improve the gender status quo in the countries; place gender-responsive activities and gender-aware policy-making at the core of the MedProgramme agenda; and partake as well as further the existing efforts on gender equality, to leverage opportunities for inclusive and accessible environmental and social co-benefits.

2. *Methodology*

This Gender Mainstreaming Strategy (GMS), as contextualized above, has been tailored for the MedProgramme. Developed with a two-fold framework, the Strategy is informed by: (a) political ecology and gender studies literature[13](presented below) to establish a mixed methodology, and (b) Program component- and country-level diagnostics to identify the baseline scenario (Section 3), which the Strategy expects to positively impact with strategic, selective and appropriate mainstreaming measures in project-specific contexts.

At the outset, this Strategy adopts a political ecology lens, which aims to influence policy development, environmental action and investment programs by 'offering chains of explanations' rather than single and disjointed root causes. This perspective, when combined with a gender-lens, highlights the socio-political dimensions of coastal and natural resource access, control, distribution and agency, which further govern issues such as environmental degradation, climate risks and resource management policies.
In the words of Rocheleau (1996), gender is relevant to a political ecology perspective as:
"A critical variable in shaping resource access and control, interacting with class, caste, race, culture and ethnicity, to shape process of ecological change, the struggle of men and women to sustain ecologically viable livelihoods, and the prospects of community for sustainable development."[14]

Thus, as the Gender Mainstreaming Strategy for the MedProgramme, this Strategy will espouse and embed the use of a combined political ecology- and gender-lens for the constituent projects. This will create a Program-wide focus (albeit, in different site-specific contexts) on understanding the spatially and temporally contingent ways in which gender issues, social relations, and the environment interact. This programmatic approach will, then, be able to consider the gamut of gendered dimensions present in the Mediterranean, such as: gender division of labor, male and female participation in labor, gendered environmental rights and responsibilities, environmental politics and governance, and collective action and resilience.

Secondly, the importance of gender-relevant and vetted data to provide empirical evidence to the policy and program needs is prioritized. Thus, available data indicators (particularly,

[13] Bauhardt, C. & Harcourt, W. *Feminist Political Ecology and the Economics of Care*. (2018) has been a critical influence on this Gender Mainstreaming Strategy.
[14] Rocheleau, D. E. *Gender and Environment: A Feminist Political Ecology Perspective*. (1996)

from the World Bank Gender Data Portal and UNDP indices) and country-specific (and where available, local site-specific) statistics have been extensively used to justify the concerns raised by the Strategy. The data on each country has been collated through gender diagnostics of desk-reviewed literature and secondary statistics, which has further revealed the existing inconsistency and low relevance accorded to gender considerations and corresponding statistics within on-going environmental projects, programs and policies.

Thus, by using gender-relevant data to contextualize its priorities, the Strategy will attempt to set an example and highlight both the need to incorporate targeted and selective gender actions based on empirical data within the MedProgramme, as well as the urgency to bolster internal and country-level monitoring systems for the collection and reporting of sex-disaggregated, environmentally-related data from project, sub-national and national levels.

3. *Baseline Scenario for MedProgramme Components*

The MedProgramme builds on the significant achievements of the MedPartnership[15] and ClimVar & ICZM[16] GEF Projects. The latter have enriched the knowledge on the Mediterranean environment and unraveled the implications of climate change and variability in the region; strengthened countries' mutual trust, cooperation and common purpose; consolidated the partnership among countries, UN bodies, Civil Society Organizations, bilateral donors and the European Union; tested on the ground feasibility and effectiveness of technical and policy instruments aimed at addressing major present and future threats to environmental sustainability and climate-related impacts. However, despite these different successes, the two projects were limited by the lack of adequate gender-responsive planning in their sectoral strategies and programs. This represents a 'missed opportunity', as incorporating the gender-lens from project preparation phase through to the monitoring and evaluation phase aid in the mapping of links between gender and environment, as well as identifying positive synergy and improve social/gender and environment outcomes from the outset. This Gender Mainstreaming Strategy, which has been developed as an input in the MedProgramme's preparation phase with the scope of scaling up in parallel with the advancement of the program cycle, thus addresses the gender-blind baseline represented by earlier initiatives.

The MedProgramme represents a comprehensive and powerful response to the environmental and socioeconomic challenges faced by the Mediterranean, in light of continued degradation of coastal zones, growing impacts of climate variability, and loss of livelihoods and deterioration of social conditions. Its objective is to kick-start the implementation of agreed-upon priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas, while

[15] Strategic Partnership for the Mediterranean Large Marine Ecosystem-Regional Component: Implementation of Agreed Actions for the Protection of the Environmental Resources of the Mediterranean Sea and its Coastal Areas (MedPartnership) – GED ID 2600

[16] Integration of climatic variability and change into national strategies to implement the ICZM protocol in the Mediterranean (ClimVar & ICZM) – GED IF 3990.

strengthening climate resilience and water security, and improving the health and livelihoods of coastal populations. The focus will be primarily on hotspots of land-based pollution, harmful chemicals and wastes (POPs and mercury), and excess nutrients; critical sections of the coastal zone particularly affected by climatic variability, freshwater stress and habitat degradation the efficient and sustainable management of priority marine protected areas; measuring progress to impacts and overall Program coherence. Dedicated Child Projects (eight) will prioritize each of these key issues. The Child Projects will be entry points for gender mainstreaming actions through gender assessments and action plans that determine targeted gender-responsive action through project objectives and outcomes at the project, local and national level.

The following table posits the hypothetical effects of a gender-blind approach to the MedProgramme components (the tentative child project – CP – is mentioned alongside), as opposed to mainstreaming robust gender outcomes within the same:

TABLE I: GENDER-BLIND v. GENDER-RESPONSIVE APPROACH

MedProgramme Component	CP	What is a *gender-blind* approach?	What is a *gender-responsive* approach?
Reduction of land-based pollution in priority coastal hotspots, and measuring progress to impacts	1.1	Top sources of land-based pollution, contaminating marine and coastal hotspots, result out of anthropogenic activities such as usage of heavy metals and untreated dumping in river systems, sewage, litter, plastic pollution, usage of pesticides and fertilizers and synthetic organic compounds.[17] Due to the ubiquitous access and usage of marine resources, the coastal populace is vulnerable to the detrimental effects of	Oxfam's *Handbook of Development and Relief* provides one of the pioneering accounts of the connections between poverty and environmental degradation, noting a *'downward spiral of cause and effect' – 'poverty can cause environmental degradation, as poor people over-exploit already strained resources, and environmental degradation causes further poverty as people are unable to find the resources to meet their daily needs.'*[18] Environmental change, climate disruptions and damage to marine systems and coastal zones have gendered impacts, and women and men shoulder these burdens differently. In what is identified as the *'feminization of poverty'* or women's increasing burden of and share in global poverty, economists and development analysts have observed that '*women constitute an estimated 70% of the world's poor people, and households headed by*

[17] Windom, H. L. "Contamination of marine environment from land-based sources" in *Marine Pollution Bulletin,* (Vol. 25, No. 1-4). (1992)

[18] Eade, D. & Williams, S. *The Oxfam Handbook of Development and Relief.* (1994)

	1.2	land-based pollutants, and therefore, marine pollutants, both in health and livelihood indicators.	*women alone…. are the world's poorest households as a general trend.*'[19] For example, environmental degradation-induced livelihood impacts are differentiated in coastal areas – fishing communities, based on local gender norms and informal nature of work, relegate remunerative activities (which often tend to be associated with risk, like 'going out to the waters) to the men, while women perform post-harvest work, which may not always be remunerated properly, if at all. The gendered allocation of remuneration, thus, creates a disparity in economic capital, and in turn impedes the capacity to adapt to environmental change and climate disruptions. Marine contaminants threaten both human health and the health of marine organisms. However, health impacts are gender-differentiated as well. Many marine and coastal contaminants are particularly dangerous for pregnant women and lactating mothers, as well as for fetal development.[20]
	1.3		

19 *Ibid.*

20 See*Global Gender Environment Outlook*, Section 2.5 for more. UN Environment. (2016)

Enhancing sustainability and climate resilience in coastal zones	2.1	According to a recent report[21], ocean-related activities in the Mediterranean Sea generate an annual economic value of 450 billion dollars with economic assets for coastal economies and communities amounting to 5.6 trillion dollars. The need for enhancing sustainability and climate resilience in the region is crucial, as the Mediterranean is experiencing a number of immediate coastal problems, which require both short-term and long-term coastal management. Regional scale studies indicate that the Mediterranean is particularly vulnerable to increased flooding and saltwater intrusion as sea levels rise.[22] The region has also been marked out as a 'hot spot of climate change', with an increase in air temperature range of 2.2°C to 5.1°C predicted over the period of 2080 – 2099.[23]	While impacts of environmental degradation and climate risks are undoubtedly severe for the entire coastal populaces, men and women, privileged and vulnerable communities, young and the elderly shoulder burdens unequally. Often the vulnerable and marginalized groups are limited by the exclusion of their needs and perspectives from regional negotiations and management policies. The immediate and long-term coastal problems being faced by the Mediterranean have implications for complex gender relations in the region, which are a kaleidoscope[24] of overlapping social, economic and cultural roles, spread across a diverse multitude of countries and communities. The European Mediterranean countries have distinct social patterns and gender norms, which differ from the Middle East and North Africa (MENA) Mediterranean countries, for example. Additionally, the varying political situations in the region also determine how women and men are able to access and leverage sustainable development opportunities to be able to cope with environmental degradation, pressures on natural resources and coastal and marine ecosystems, and climate risks. For the northern Mediterranean countries (the Western Balkan nations), labor market dynamics exhibit a significant gender gap: women's employment rates (especially for marginalized communities such as Romas) are lower, along with an existing gender wage gap. Since economic capital is among the important determinants of coping capacities to external shocks (in this case, water stress, degradation of coastal aquifers, loss of

[21] See *Reviving the Economy of the Mediterranean Sea: Actions for a Sustainable Future* for more. WWF and The Boston Consulting Group. (2017)

[22] Nicholls, R. J. & Hoozemans, F. M. N. "The Mediterranean: vulnerability to coastal implications of climate change" in *Ocean and Coastal Management,* (Vol. 31, No. 2-3). (1996)

[23] See *Climate Change and Energy in the Mediterranean*for more. European Investment Bank. (2008)

[24] See this report by the Union for the Mediterranean (UfM) regarding an action plan towards investing in gender equality in the region.

	2.2		coastal livelihoods, climate impacts et al), women (and other marginalized groups, including ethnic minorities) are more likely to be vulnerable. The 'double disadvantage' of the situation should also be reckoned with: due to lack of viable economic capital, vulnerable groups are often excluded from socio-political control over coastal zone and water resources (coastal aquifers, particularly) management policies – increasing the possibilities of exposure to the threats looming in the Mediterranean region. For MENA countries, coupled with barriers to the labor market and employment opportunities, women face institutionalized exclusion from civil society and political spheres. Decision-making power within the household and the polity is limited, reducing women's capacities to engage in the public sphere and gear development opportunities to safeguard their interests. In recent years, however, women have been capitalizing on opportunities presented by pluralistic interpretations of traditional gender norms and entering both the work force and the public space. The gains achieved through social change in this region may not keep pace with the risks and threats arising from the lack of proper management policies for natural resources and the coastal zone, and growing threats of climate change and environmental degradation in the region. As with the European Mediterranean countries, burdens of emerging risks and shocks may fall on the vulnerable groups. *(Refer to footnote 12, for more information on the SCCF Project – and why it is a Child Project under the MedProgramme)*
	SCCF		
Protecting marine biodiversity	3.1	The Mediterranean's biodiversity underpins the ability of ecosystems	Until recently, there was a lacuna in the empirical and normative literature on gender and marine biodiversity. However,

		to provide humans with the services they require to survive – although as Hooper shows, delineating the role of biodiversity in ecosystem services and relative roles of difference functional groups has been extremely complex. The Mediterranean's predominantly coastal population is increasingly threatened by the loss of biodiversity, due to mismanagement and unsustainable use, and this situation is projected to worsen with the coupled effects of human-induced climate impacts, such as warming sea surface temperatures, altering ocean chemistry and increasing run-off of land-based pollutants and sediments.[25] Resuscitating and protecting these marine ecosystems, which form the resource base for coastal economic and social activities, requires all possible expedition.	with reviewed studies on the role of gender with respect to conservation, particularly that of mangroves and their ecological significance, brought to light the clear link between gender and biodiversity and conservation outcomes. According to the Convention on Biological Diversity, considering gender issues in relation to biodiversity involves identifying the gender roles and relations have on the use, management and conservation of biodiversity. To begin with, this MedProgramme component should address the knowledge gap regarding gendered biodiversity practices in the region, through extensive data and information collection, stakeholder consultations and focused-group discussions. This would contribute towards gender-responsive policies within marine resource management and biodiversity conservation plans that can increase the sustainability of outcomes by incorporating artisanal and traditional knowledge gathered from both women and men. Exposing gender-differentiated biodiversity practices[26] will also help demarcate the different levels of harm caused by different groups (income-generating activities, traditionally relegated to men, may be more exploitative in some instances), as well as the inequalities in control of resources. Biodiversity conservation plans can be truly effective if they address poverty, inequality and resource access dynamics among coastal communities.[27]
Knowledge management and program coordination	4.1	Knowledge management and program coordination, if carried out with a top-down approach and without a stakeholder-facing participatory approach, risks excluding the needs	Robust coordination and knowledge management strategies panning the MedProgramme have to be operationalized to ensure its success. Given the breadth and value of the initiative, as well as the numerous partners and focus points, these strategies will ensure: stakeholder representation

[25] Lockwood, M. et al. "Marine biodiversity conservation governance and management: Regime requirements for global environmental change" in *Ocean and Coastal Management,* (Vol. 69). (2012)

[26] See the gender tab on *Convention on Biological Diversity*for more.

[27] The Secretariat of the Convention on Biological Diversity hosted a meeting in Bangkok (December 2017) to develop training material to advance gender inclusion in biodiversity planning in the Asia-Pacific region. See the reporting here.

		and concerns of beneficiaries. Additionally, procedural and red tape hurdles tend to disproportionately affect those with limited resources and access to governing mechanisms, support organizations and implementing agencies.	and engagement, technical and administrative coordination of the program; establish a commune of practice and initiative among different stakeholders and partners; management of knowledge generated on an accessible platform (both data and normative) as well as dissemination of lessons learnt and best practices in later stages of the program cycle; high-quality and timely systems for monitoring of the Program's progress to impacts. In tandem with a knowledge management and program coordination strategy, a gender mainstreaming strategy for the MedProgramme will be developed to provide critical gender-responsive research inputs for Programme components, as well as to espouse a gender-aware policy in the region, taking stock of the existent inequities and gender norms of the Mediterranean. Gender mainstreaming shall be pursued within the different Child Projects, with tailored gender assessments and action plans determining strategic and selective action to improve the baseline inequality within project- and country-specific dimensions. This will safeguard the interests and priorities of the vulnerable and marginalized communities among the Mediterranean coastal populaces, as well as increase the sustainability and inclusion of the MedProgramme's priorities in the region and contribute to the regional conversation on decreasing inequality, poverty and vulnerability.

4. *Baseline Scenario for MedProgramme Countries*

The nine Mediterranean countries participating in the MedProgramme (Albania, Algeria, Bosnia and Herzegovina (BiH), Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia), face different developmental challenges and socioeconomic disparities, as seen from the country profiles, developed for this Gender Mainstreaming Strategy.. These data profiles borrow from UNDP's Human Development Index, Gender Inequality Index, and Gender

Development Index. Additionally, they refer to the Global Gender Gap Index (World Economic Forum) and compiles national-level poverty statistics (conducted by national authorities of the nine countries, as well as the World Bank, in some cases). These indices have differing methodologies, and are being employed, at the outset, as indicative (and *not* conclusive) measures of current levels of development, gender equality, and poverty and labor force participation.

As Booysen's research[28] shows, composite indices present both challenges and advantages. It should be noted that numerous fallacies have been identified in the methodologies employed in composite indexing. These indices are mainly quantitative, and present empirical and aggregate measures of complex development phenomena, making values apparently objective, at the cost of subjective nuances. Yet, these also remain invaluable as useful supplements to income-based development indicators, understanding relative degrees of development, simplifying complex measurement constructs as well as providing access to non-technical audiences. To balance this dichotomy, ranks have been removed in certain indices and have been linked in the footnoting, and the broader development categories (high/medium/low development) have been used.

TABLE II: HUMAN DEVELOPMENT INDEX (HDI)[29]

(out of 188 countries – United Nations Development Program – UNDP, 2018)

Defining the HDI: This index measures and combines three basic dimensions of human development (long and healthy life, knowledge and decent standard of living) and provides an overall socioeconomic landscape of a country.
Relevance of the HDI: Since socioeconomic capital and security are crucial determinants of the capacities to adapt towards natural resource stress, loss of coastal livelihoods, marine and environmental degradation, and climate risks, this index indicates how poised each country may be to consider different resource management, resilience, adaptation and mitigation options.
Indicative, not conclusive: In line with Booysen's argument, the HDI should be treated as indicative, not conclusive. It provides an overview of relative degree of development in a particular country but remains a 'synthetic indicator'. Recent research has shown the need to supplement the HDI with other indicators associated with economic and social cohesion, sound development strategies, and sustainability in growth models.[30]

Country	Rank	Relevance
Albania	68th	With 'high human development', Albania's capacity to adapt to climate risks and variability is pegged well. However, due to regional variation in poverty rates (high in the Kukës prefecture – 22% v. Gjirokastër prefecture (qarks) – 8%, in particular[31]) in the country, environmental services and social co-benefits may not be equitably shared.

[28] Booysen, F. "An Overview and Evaluation of Composite Indices of Development" in *Social Indicators Research,* (Vol. 59 No. 2). (2002)
[29] UNDP. (2018)
[30] Bilbao-Ubillos, J. "The Limits of *Human Development Index"* in *Sustainable Development,* (Vol. 21 No. 6). (2011)
[31] *Portraits of Poverty and Inequality in Albania.* INSTAT (Albanian Institute of Statistics) & World Bank. (2015)

Country	Rank	Relevance
Algeria	85th	With 'high human development', Algeria wields capital, largely derived from its oil economy, in readiness against climate shocks. However, due to high inequality in consumption, high unemployment rates (particularly, women and youth) and largely informal workforce[32], environmental services and social co-benefits may not be equitably shared.
Bosnia and Herzegovina (BiH)	77th	With 'high human development', BiH's capacity to adapt to climate risks and variability is pegged high and similar to Algeria. As a post-conflict nation, however, educational attainment and labor market access continue to be determined by poverty status[33] in the country, thus, environmental services and social co-benefits may not be shared.
Egypt	115th	With 'medium human development', Egypt's readiness towards adopting climate risk mitigation and adaptation opportunities might be limited, wherein the government may prioritize other pressing developmental pursuits.[34] With a volatile political climate, and entrenched gender inequality, environmental services and social co-benefits may not be equitably shared.
Lebanon	80th	With 'high human development', Lebanon's capacity to adapt to climate risks and variability is pegged well. However, due to high concentration of income and wealth in the country[35] and the spill-over effects of the Syrian civil war, environmental services and social co-benefits may not be equitably shared.
Libya	108th	With 'medium human development', Libya's readiness towards adopting climate risk mitigation and adaptation opportunities might be limited, wherein the government may prioritize other seemingly pressing developmental pursuits. With a volatile political climate challenging economic stability[36], dependence on oil production and entrenched gender inequality, environmental services and social co-benefits may not be equitably shared.
Montenegro	50th	With 'very high human development', Montenegro is poised to adapt well to climate risks. However, due to historic ethnic exclusionism (the Roma population, in particular[37]) in the country, environmental services and social co-benefits may not be equitably shared.
Morocco	123rd	With 'medium human development', Morocco's readiness towards adopting climate risk mitigation and adaptation opportunities might be limited, wherein the government may prioritize other seemingly pressing developmental pursuits. Pronounced gender inequality in the country slows economic growth[38], environmental services and social co-benefits may not be equitably shared.
Tunisia	95th	With 'high human development', Tunisia's capacity to adapt to climate risks and variability is pegged well. However, due to concentration of income and wealth in the country[39], high unemployment rates (particularly, youth) and economic unrest challenging political stability, environmental services and social co-benefits may not be equitably shared.

32 "Poverty has fallen in the Maghreb, but inequality persists". World Bank. (2016)
33 *Poverty and Inequality in BiH.* World Bank. (2011)
34 *Inequalities, Uprisings and Conflicts in the Arab World. MENA Monitor.* World Bank. (2015)
35 Assouad, L. "Rethinking the Lebanese Economic Miracle". WID. (2017)
36 *Libya Economic Outlook.* World Bank. (2018)
37 *Gender at a Glance: Montenegro.* World Bank. (2015)
38 "Reducing gender inequality in Morocco can boost growth". IMF. (2017)
39 *Tunisia: Economic Outlook.*World Bank. (2018)

TABLE III: GENDER INEQUALITY INDEX (GII)[40]

(out of 159 countries – UNDP, 2018)

Defining the GII: This index, showing inequality in achievement between men and women in three aspects (reproductive health, empowerment and labor market), provides a useful gender baseline in terms of health equity, economic capital and financial access, speaking to the gender opportunities of men and women in the countries. This baseline has been elaborated upon using existing gender studies literature on each country.
Relevance of the GII: This index provides a primary understanding of the different levels of achievements on basic development indicators between men and women. This displays useful features towards the gender status quo hypotheses, which could then be derived in the context of this project.
Indicative, not conclusive: In line with Booysen's argument, the GII should be treated as indicative, not conclusive. Pernmayer finds that the functional form of the index could be unclear, particularly the inclusion of indicators of relative performance of women vis-à-vis men, along with absolute women-specific indicators.[41]

Country	Rank	Relevance
Albania	52nd	In Albania, traditional beliefs continue to influence gender roles, particularly in the household setting. During socialist rule, although policies promoted women's presence in the public sphere (through education and work), the continued responsibility for unpaid domestic work remained with women (leading to time poverty or 'double shifts'). During the transition to a capitalist economy, gender equality laws were not put in place for private sector jobs, and thus, employment for Albanian women could not be safeguarded.[42]
Algeria	100th	In Algeria, social codes affect women's empowerment. Since labor force participation disparity is pronounced, women lag behind on economic capital needed to combat risks arising from environmental degradation, mismanagement of water and coastal resources, and climate shocks. According to the Arab Barometer, in 2017, compared to 2013, a greater number of Algerians regarded higher education as more important for men, as well as reinforced the notion that married women should be ideally relegated to household duties.[43] This also makes them dependent on the patrilocal structure of Algerian society.
Bosnia and Herzegovina (BiH)	37th	Despite progress in closing the gender gap in endowments - mainly in education among the younger generation - BiH still faces a number of gender issues, particularly in women's access to economic and employment opportunities. Alongside improved educational outcomes, significant gaps remain in labor market participation and employment in favor of men, as women continue to face challenges in accessing economic opportunities.[44] Additional obstacles continue to exist for women in exercising agency (the power to choose and decide options to preserve to act for oneself), particularly managing domestic work, lack of political representation and participation as well as widespread gender-based violence.

40 UNDP. (2018)
41 Pernmayer, I. "A Critical Assessment of the UNDP's Gender Inequality Index" in *Feminist Economics,* (Vol. 19 No. 2). (2013)
42 World Bank. (2012)
43 "Droits des femmes en Algérie: les lois progressent mais pas les mentalités". Middle East Eye. (2017)
44 *BiH: Economic Mobility, Jobs and Gender*. World Bank. (2016)

Country	Rank	Relevance
Egypt	101st	Political, social and economic capitals are not equitably distributed among Egyptian men and women. Without access to these vital resources, the risks identified by MedProgramme will only burden those at the lower echelons of society. Despite improvement of young women's education levels in recent times (Egypt's rank improved by 34 spots in the latest GII quoted here), the workforce participation and retention rates remain unperturbed, signaling a stagnated job market and scarce employment opportunities.[45] Egypt also faces some particular gender-specific barriers in high numbers, such as FGM and sexual harassment, arising out of sexual inequality between men and women in the country.
Lebanon	85th	Lebanese women face the least gender disparity in the Arab world with their male counterparts. Despite this, discriminatory social codes, particularly the focus on intersectional civil and family laws, continue to impede women's empowerment.[46] Although the gender gaps at higher levels of education are reversing, women continue to face entry barriers to the labor market as well as time poverty due to the predominance of unpaid care work.
Libya	38th	Women in Libya have had a long history of actively participating in the economic, social and political development of the country, going back to the 1950s. Yet, with Gaddafi's introduction of the *Declaration of the Authority of the People* in 1977 and the *Great Green Charter of Human Rights in the Age of the Masses* in 1988, these rights were compromised at a substantive level.[47] Furthermore, traditional family laws, as a general trend in the MENA region, continue to disadvantage women and exacerbate their time poverty. The 2011 uprisings signaled that women were entering the public space, yet changes in women's empowerment has been sluggish in the past seven years.
Montenegro	32nd	Montenegro is relatively advanced in terms of progress towards gender equality. This enhances the capacities of Montenegrin men and women to face climate-risks and capitalize on adaptation opportunities. However, gender-inequitable dynamics remain in important determinants such as access to labor markets, health equity et al, rendering certain demographics vulnerable.
Morocco	119th	Political, social and economic capitals are not equitably distributed among Moroccan men and women. Without access to these vital resources, climate risks will only burden those at the lower echelons of society. Gender equity in labor force participation is one of the lowest in the world[48], disadvantaging women further: women lag behind on economic capital needed to combat climate shocks and risks.
Tunisia	63rd	In Tunisia, traditional social codes affect women's empowerment. Since labor force participation disparity is thoroughly pronounced, women lag behind on economic capital needed to combat climate shocks and risks. This also makes them dependent on the patrilocal structure of Tunisian society. However, the January 2011 uprisings signaled that women were entering the public space, leveraging opportunities for their economic empowerment,[49] although it remains to be seen if the force of this societal shift can keep pace with climate risks.

45 *Egypt: Country Gender Assessment.* World Bank. (2010)
46 *Lebanon: Country Gender Assessment.* European Union. (2015)
47 *Libya: Country Profile.* Gender Concerns International. (2015)
48 *Morocco: Country Gender Assessment.* World Bank. (2015)
49 *Gender in MENA Projects: Tunisia.* World Bank. (2011)

TABLE IV: GENDER DEVELOPMENT INDEX (GDI)[50]

(grouped in 5 categories, 1: high equality to 5: low equality – UNDP, 2018)

& GLOBAL GENDER GAP INDEX (GGI)[51]

(out of 144 countries – World Economic Forum – WEF, 2017)

Defining the GDI & GGI: The GDI (UNDP) index shows the ratio of female to male HDI values. GDI expresses values in deviation, hence, in order to facilitate understanding GDI grouped categories have been used (as grouped by UNDP) to show the absolute deviation from gender parity in HDI values. This further reiterates the results of the HDI and GII (also by UNDP), and shows the real gender gap in human development achievements.

The GGI (WEF) benchmarks 144 countries on their progress towards gender parity on four thematic dimensions – economic participation and opportunity, educational attainment, health and survival, and political empowerment. The Index benchmarks national gender gaps on economic, political, education- and health-based criteria, and provides country rankings that allow for effective comparisons across regions and income groups, over time.

Relevance of the GDI & GII: Since the GDI and GGI use different methodologies, and are conducted by different agencies, this report does not suggest a causality between the two indices. However, a correlation is undeniable, and both indices pick up similar rates of gender disparity in the MedProgramme countries.

Indicative, not conclusive: In line with Booysen's argument, the GDI & GII should be treated as indicative, not conclusive. Geake Dijkstra and Hanmer find that although gender-related development indices have increased attention towards 'feminization of poverty and underdevelopment', more robust data needs and indicators are required to create aggregate indices that are sensitive to contemporary trends in gendered privation, particularly with the categorization of 'women'.[52]

Country	GDI – Group	GGI – Rank	Relevance
Albania	Medium-high equality	38th	Despite being categorized as a country with high HDI, a pronounced gender gap in Albania is evinced from the grouping and ranking.
Algeria	Low equality	127th	Algeria, with Tunisia, shows the greatest disparity in development and gender equity rankings. Despite being categorized as a country with high HDI, an entrenched gender gap is revealed.
Bosnia and Herzegovina (BiH)	Medium-low equality	66th	Despite being categorized as a country with high HDI, a pronounced gender gap in BiH is evinced from the grouping and ranking.
Egypt	Low equality	134th	The gender gap in Egypt is entrenched, requiring tangible efforts to address and lessen gendered disparities in the country.
Lebanon	Low equality	137th	The gender gap in Lebanon is entrenched, requiring tangible efforts to address and lessen gendered disparities in the country.

50 UNDP. (2018)

51 WEF. (2017)

52 Geske Dijkstra, A. & Hanmer, L. C. "Measuring Socio-Economic Gender Inequality: Towards an Alternative to the UNDP Gender Index" in *Feminist Economics,* (Vol. 6, No. 2). (2000)

Country	GDI – Group	GGI – Rank	Relevance
Libya	Medium-high equality	Not available	NA
Montenegro	Medium-high equality	77th	Although Montenegro features among the upper categories of the previous indices, this reveals a more entrenched gender gap. Women lag behind their male counterparts, in a greater amount than expected, despite very high human development achievements in the country.
Morocco	Low equality	136th	The gender gap in Morocco is entrenched, requiring tangible efforts to address and lessen gendered disparities in the country.
Tunisia	Medium-low equality	117th	Tunisia, with Algeria, shows the greatest disparity in development and gender equity rankings. Despite being categorized as a country with high HDI, an entrenched gender gap is revealed.

TABLE V: SOCIOECONOMIC FACTORS

Note: This table is compiled from various sources, and determines poverty levels (according to USAID income grouping), rural-urban divide and labor force participation parity in the MedProgramme countries.
***Poverty Level:** Environmental degradation and climate change is a threat multiplier, and often its impacts combine with poverty, hence this is an important indicator, corroborating HDI ranking. To illustrate this, the Multidimensional Poverty Index has been used. (The Oxford Poverty and Human Development Institute (OPHI), and UNDP calculate the MPI, for measuring acute poverty in developing countries. It complements traditional income-based poverty measures by capturing the severe deprivations with regard to different indicators: education, health, and living standards. The index not only identifies those living in multidimensional poverty, but the extent (or intensity) of their poverty. The MPI can help the effective allocation of resources by making possible the targeting of those with the greatest intensity of poverty; it can help address some SDGs strategically and monitor impacts of policy intervention.[53]
***Rural-Urban Divide:** Climate risks take different forms in rural and urban areas, but lack of development and investment in rural areas (particularly in the Mediterranean) often impedes adaptive capacities of vulnerable demographics, who also derive their livelihoods (in this case, coastal livelihoods) from managed and natural resources.
***Labor force participation parity (% of working age population active)[54]:** In the Mediterranean, one of the prime arenas of gender disparity is labor force participation parity. The region is plagued with high unemployment rates[55] (12.5% average), and this phenomenon remains a gendered one: women and youth are less likely to be employed than men, as a general trend. Additionally, the existing gap in labor force participation indicates that women possess less economic capital, and are limited to gendered (mostly unpaid care work) roles. This directly correlates to lessened participation in coastal economies and scarce or unstable livelihoods; lack of decision-making power both within the household and larger policy frameworks such as coastal resource use and water management; and, greater exposure to repercussions of marine environmental degradation, water stress and potential climate risks (which often acts as a threat multiplier, in this context).

53 See UNDP's Technical Notes (2016) for more.
54 *World Employment and Social Outlook: Trends for Women.*ILO. (2017)
55 "Unemployment: The Mediterranean Effect", World Bank. (2012)

Please find table contents on p. 21 (adjusted for footnoting).

Country	Poverty Indices	Rural-Urban	Labor Force Participation *(The gender gap is calculated as the difference between women's and men's labor force participation rates – simply, the number of working age men and women employed in a country, ILO 2016)*
Albania	**1.2%** below the **National Poverty Line.**[56] The Multidimensional Poverty Index reveals that 7.2% of Albanians are precariously 'near' poverty.	Diber and Kukes *qarks* (prefectures) show lowest rates of urbanization, and related issues: fragmentation, population decline, *et al.* Tirana and Durres, on the other hand, have the highest level of urbanization and best performance on demographic and geographic indicators.[57] Rural to urban migration is common, and often unbridled, leading to environmental complications as well as socioeconomic tussles.	**39.3% female** **60.7% male** During the socialist rule, the government policy of full employment boosted female participation and, as a consequence employment rates were higher than the average figures of the OECD countries. Policies such as investment in childcare facilities and female education stimulated women to enter and remain in the labor market. The market economy disadvantaged women by providing unstable employment opportunities, although education outcomes and employment sectoral options have improved in recent decades, leading to the widening of the gender gap in labor force participation.[58]

56 *Regional disparities in Albania.* UNDP. (2010)

57 *Regional disparities in Albania.* UNDP. (2010)

58 Garcia-Pereiro, T. "The Determinants of Female Employment in Albania". Open access on *ResearchGate*. (2016)

Algeria	**11.8%** below the **National Poverty Line.**[59] The MPI is unavailable for the country. However, the *Ligue Algérienne pour la Défense des Droits de l'Homme (LADDH)* reports that about 35% (14 million) of Algerians are in poverty.[60]	Poverty in Algeria has a distinctly urban face: 75% of the country's poor live in cities, undertaking informal jobs without access to social safety nets. Additionally, the disproportionate rates of urban poor show that the incidences of poverty in the Algerian Sahara are twice as much than among people living in the Steppe.[61]	**19.0% female** **70.4% male** Female labor force participation is low in Algeria, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world.[62] However, according to ILO, the status quo is slowly altering (although not quite at an ideal pace), as there are marked difference between participation rates from 2011 to 2018.[63]
Bosnia and Herzegovina (BiH)	**15%** below the **National Poverty Line.**[64] The MPI reveals that 3.2% of the populace are precariously 'near' poverty.	BiH remains one of the most rural countries in Europe – with over 60% of its populace residing in rural areas.[65] The rural poverty rate is higher than urban areas, although income dynamics are similar.[66]	**34.4% female** **58% male** Between the years 1992-1995, Bosnia and Herzegovina went through a destructive war that resulted in mass emigration of around 50% of the total population. In the period after the war, although considerable number of refugees returned, it remains unclear how the jobs market was affected around the time. With the failing of the state's strong social protection services such as long-term care, child care and elderly care, and new categories of 'returnee refugees' and 'internally-displaced people', women bear the brunt of unpaid care work. Although more women attend university than men, they continue to face sociocultural barriers in entering the labor force.[67]

59 Poverty has fallen in the Maghreb, but inequality persists". World Bank. (2016)

60 See *Ligue Algérienne pour la Défense des Droits de l'Homme*(LADDH)for more.

61 "Poverty has fallen in the Maghreb, but inequality persists". World Bank. (2016)

62 Women face the highest proportion of legal restrictions (*de jure* discrimination) in the MENA region, as well as sociocultural norms (*de facto* discrimination) that stipulate limits to women's entry in the public, and working sphere. Young females are particularly discouraged from seeking employment.

63 This ILO report (2014) expounds on the factors affecting employment and labor force participation in Algeria.

64 *Poverty and Inequality in BiH.* World Bank. (2011)

65 *Rural Development in BiH: Myth and Reality.* UNDP. (2013)

66 *Poverty and Inequality in BiH.* World Bank. (2011)

67 This ILO report (2011) expounds on the factors affecting employment and gender in BiH.

Egypt	**27.8%** below the **National Poverty Line.**[68] Although extreme poverty has been virtually eradicated, Egypt is yet to turnaround the effects of the 2011 Arab Springs on its economy, leaving a third of Egyptians in precarious poverty. Particularly, high inflation over 2015-17 has lowered the purchasing power of households.[69]	Regional disparities continue to be a part of the country's landscape, with upper rural Egypt showing poverty rates three times higher than metropolitan Egypt.[70]	**22.8% female** **76.1% male** Female labor force participation is low in Egypt, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world.[71] This is a significant loss as including women and enabling conditions to retain them in the workforce can boost the growth rate of the Egyptian economy.[72] In recent times, Egypt's performance on health and education indicators is improving, and this could change labor dynamics.
Lebanon	**30%** below the **Middle-Income-Country Poverty Line.**[73] Although GDP increase in Lebanon remains steady, the country faces the economic and social impact of the Syrian crisis. With the influx of 1.5 million refugees, Lebanon's public finances, service delivery, and the environment have been strained, increasing poverty headcount and unemployment.[74]	Lebanon's population is 87% urban, concentrated particularly in Beirut. The dynamics of urban poor show a pan-Mediterranean attribute: job creation is low, youth unemployment is high, and the vulnerable groups are trapped within the informal sector. In the rural areas, different causes entrench poverty: social protection and government service delivery are limited in these remote and mountainous regions.	**23.5% female** **70.3% male** Female labor force participation is low in Lebanon, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world. This is a significant loss as including women and enabling conditions to retain them in the workforce can potentially boost the growth rate of the Lebanese economy.[75]Recent studies, however, show that Lebanon is leading the growth rate of female participation in labor force in the MENA region.[76]

68 *Egypt: Economic Outlook.*World Bank. (2018)

69 *Ibid.*

70 *Ibid.*

71 ILO. *Women in Business and Law*. (2014)

72 The Economic Research Forum (ERF), a regional forum on economic research in Arab countries, Turkey and Iran finds that encouraging the participation of women in the labor force, particularly the 'married women' demographic could usher in rapid growth for the Egyptian economy. See here.

73 *Lebanon: Rapid Poverty Assessment.* UNDP. (2016)

74 *Lebanon: Economic Outlook.* World Bank. (2017)

75 Find more on Lebanon on the ERF website.

76 See this AN-NAHAR coverage.

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Libya	**40%** below the **Middle-Income-Country Poverty Line.** Although economic growth is projected to rebound at around 15% in 2018, Libya's oil-dependence does not benefit the majority of the Libyan populace. High inflation coupled with weak basic service delivery have exacerbated socioeconomic exclusion in the country. Libya continues to experience conflict and insecurity.	Libya's population is 85% urban, concentrated particularly in Tripoli, Benghazi, Misrata and Bayda. The dynamics of urban poor show a pan-Mediterranean attribute: job creation is low, youth unemployment is high, and the vulnerable groups are trapped within the informal sector.	**27.8% female** **78.7% male** Female labor force participation is very low in Libya, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world. Women often take on informal sector roles, particularly starting their own small business, despite receiving higher rates of advanced education than men (77% versus 63%). Movement in Libya for women is severely limited and is another deterrent to workforce participation.
Montenegro	**8.6%** below the **Middle-Income-Country Poverty Line.**[77] In Montenegro, there has been sustainable reduction in poverty in the last five years.	60.5% of the rural populace is classified poor.[78] In 2010, MONSTAT finds that not only are the rural populace are at a higher poverty risk, they also face more entrenched forms of poverty.[79]	**42.5% female** **55% male** As the country emerged from dirigisme, social property was privatized, and the economy sprouted 'grey areas' of undeclared or unregulated work. Post-conflict Montenegro is still reeling from the economic effects of war, which increased unemployment (17.8% in 2016)[80] and bolstered GDP loss. The Roma populace face entry barriers to the workforce, and employment rates are far below national averages: 47% Roma male and 8% Roma female are employed.
Morocco	**15.5%** below the **Lower-Middle-Income-Country**	3 million out of the 4 million poor live in rural areas[82]	**25% female** **74.1% male**

[77] The middle-income country Poverty Line, as defined by the World Bank, stands at consumption below the standardized poverty line of $5.50/day. World Bank. (2017)

[78] MONSTAT. (2010)

[79] MIDAS Project, World Bank. (2016)

[80] World Bank. (2016)

[82] Fair Observer. (2017)

	Poverty Line.[81] In Morocco, there has been steady decline in poverty, though the underlying factors may be remittances, deceleration of population growth and macroeconomic stability. Inequalities between rich and poor are still abounding, and poverty essentially has a rural face in the country. The MPI also reveals that an additional 12.6% of Moroccans are dangerously 'near' poverty. Among the 15.5% poor, 5% are in 'severe' multidimensional poverty.	The subjective poverty rate has increased by 15% from 2004 figures in rural Morocco. Meanwhile, the urban poverty rate is half of the national average in 2001, and in 2014, stands at one-third.[83]	Female labor force participation is low in Morocco, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world.[84] However, Morocco is entering a period potential demographic dividend, with the number of working-age population, relative to below 15 and above 64 years, increasing. This could either signal a potential economic boom or an unemployment crisis, if economic activity is not encouraged and made inclusive for the marginalized.[85]
Tunisia	**24.7%** below the **National Poverty Line.**[86] Poverty rates in Tunisia have seen a significant increase, from 15.5% (2010) to 24.7% (2018). Income disparities are high: the top 20% of Tunisians earn 46% of the national income, while the bottom 20% earn only 5.9%.[87] Civil unrest since the 2011	Rural areas in Tunisia remain marginalized and underprivileged, leading to high rates of rural to urban migration, particularly towards Greater Tunis and its agglomeration economies.[88]	**25.1% female** **71.3% male** Female labor force participation is low in Morocco, relating to the phenomenon that the gender difference in the labor force participation of the MENA region is the widest in the world.[89] Like Morocco, Tunisia faces crucial demographic transition in the coming years, yet barriers to the job market remain high. Young women are particularly vulnerable and face exclusion from economic activities.[90]

81 The lower-middle-income country Poverty Line, as defined by the World Bank, stands at consumption below the standardized poverty line of $3.10/day. World Bank. (2017)

83 World Bank. (2018)

84 ILO. *Women in Business and Law*. (2014)

85 This IFAD report expounds on the factors affecting employment and gender in Morocco.

86 "Poverty has fallen in the Maghreb, but inequality persists". World Bank. (2016)

87 *Tunisia: Economic Outlook.*World Bank. (2018)

88 Amara, M., Jemmali, H. & Ayadi, M. "Rural-Urban Migration and Income Disparity in Tunisia". *Economic Research Forum.* (2017)

89 ILO. *Women in Business and Law*. (2014)

90 This ILO report expounds on the factors affecting employment and gender in Tunisia.

	has increased poverty and unemployment and discouraged entrepreneurs and private sector actors.		

TABLE VI: POLICY ENVIRONMENT, LEGAL TOOLS & INSTITUTIONS

This section explores the policy environment in the countries participating in the MedProgramme, and presents a potential list of gender stakeholders, relevant for the site-specific activities and collaborations during the project cycle. Legal tools, and enabling policies are crucial in ensuring gender inequality can be address through tangible and formal procedures. This table, compiled from various sources, particularly UN Women and the Equal Futures Partnership, thus, takes stock of international conventions, national laws and policies, and country-level stakeholders that can aid the MedProgramme in gender mainstreaming and narrowing socioeconomic gaps.

Country	Policy Tools, Legal Instruments, Institutions	Provisions
Albania	1994 – CEDAW	Albania signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1994.
	1998 (amended 2012) – Constitution of the Government of Albania	Article 18 establishes that all are equal before the law. No one may be unjustly discriminated against for reasons such as gender, race, religion, ethnicity, language, political, religious and philosophical beliefs.
	2016 - 2020 – National Strategy and Action Plan on Gender Equality	The Strategy and the Action Plan represent a commitment for 2016 – 2020, with concrete interventions towards economic empowerment of women and men, ensuring actual participation and engagement in political and public decision-making processes; reducing gender-based violence and domestic violence and strengthening the coordination and monitoring role of the national mechanism of gender equality.
	Institutions	Ministry of Social Welfare and Youth (with contribution of the Inter-Agency Working Group) Ministry of Justice National Referral Mechanisms
Algeria	1996 – CEDAW	Algeria signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1996.
	2008 – Constitution of the Government of Algeria	Under the Algerian Constitution, women enjoy the same civil and political rights as men and have the status of full citizens (Articles 29 and 31).
	Institutions	Ministry of National Solidarity, Family Affairs and Status of Women

Bosnia and Herzegovina (BiH)	1993 – CEDAW	BiH signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1993.
	2006 – Law on Gender Equality	Bosnia's Gender Equality Law provides definitions for direct and indirect discrimination, as well as gender-based violence and sexual harassment. It mandates the creation of gender equality of gender equality strategies and programs in education, employment, access to resources, social protection, etc.
	2014 - 2017 – National Action Plan on Gender	The NAP addresses the gender rights principles laid out in the national law, and works towards improving women's participation in public life and decision-making, and particularly target the legacy of human trafficking and sexual slavery in the country's post-conflict context.
	Institutions	Agency for Gender Equality of Bosnia and Herzegovina Ministry of Human Rights and Refugees
Egypt	1981 – CEDAW	Egypt signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1981.
	2014 – Constitution of the Government of Egypt 1937 – Criminal Code of the Government of Egypt	The two main legislations protecting and supporting women are the Egyptian Constitution of 2014 (Articles 11, 53 and 214) and the Criminal Code of 1937. Crimes against women in Egypt are divided in two groups: misdemeanors and felonies. Misdemeanors, such as catcalling, are usually punished by fines with shortened trials. Felonies, like FGM and rape, are permanent criminal offences, punished by longer jail time.
	Integrated Gender Program (UNDP, UN Women and UNFPA)	The integrated program is helping to address multi-faceted challenges faced by women and young girl through three pillars of social, legal and economic empowerment. A similar EBRD project for the MENA region is active in Egypt as well.
	Institutions	National Council for Women

Lebanon	1997 – CEDAW 1936 – Constitution of the Government of Lebanon Women's International League for Peace and Feminism (WILPF) – ABAAD Resource Centre of Gender Equality Institutions	Lebanon signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in1997. The Lebanese legal system is primarily based on French Civil Code and Egyptian legal systems. Whilst there is no unified civil law in Lebanon, the Lebanese Constitution promulgated in 1926 articulates the principle of equality among all citizens (Articles 7 and 12). WILPF and ABAAD are leading national consultations to develop the first National Action Plan towards gender equality currently. The EU wrapped up its 'Gender Equity and Empowerment of Women in Lebanon' in early 2017, which has laid groundwork towards the adoption of a quota system for women in the country. National Commission for Lebanese Women
Libya	1989 – CEDAW 2011 - 2013 – Interim Constitutional Declaration of the Government of Libya	Libya signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1989. After the end of Gaddafi's rule, the UN-back interim government (Government of National Accord) has overseen the development of draft constitution. Women activists in Libya are currently in the process of including substantive demands[91] in the draft, which will be presented to the Libyan people for referendum. This Constitution will lay out the new framework for gender equality legal tools and policy environment in the coming years.
Montenegro	2006 – CEDAW 2007 – Law on Gender Equality 2008 – Action Plan to Achieve Gender Equality in Montenegro – PAPRR Institutions	Montenegro signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 2006. The first Law on Gender Equality was adopted in July 2007. The Law on Amendments to the Law on Gender Equality was adopted in June 2015, in line with international specifications of the UN, the EU, and the Council of Europe. This document was drafted in the context of the accession of Montenegro to the EU, based on CEDAW. Action Plan is updated every 4 years, and out of the critical areas covered in Beijing Declaration, Montenegro has opted for 9. The Ministry of Human and Minority Rights The Department of Gender Equality Affairs
Morocco	1993 – CEDAW 2011 – Constitution of the Government of Morocco	Morocco signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1993. Article 19 establishes that men and women should enjoy equal rights and freedoms in all civil, political, economic, social, cultural and environmental matters.

[91] *Libya Women's Demands in the Constitution*(UNDP-led Cairo consultations). (2017)

	2013 – IKRAM	The Government Plan for Equality was developed by the Government of Morocco along with key stakeholders. .
	Institutions	The Ministry of Human Rights The Ministry of Family, Solidarity, Equality and Social Development
Tunisia	1985 – CEDAW	Tunisia signed the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1985. However, in April 2014, Tunisia officially lifted key reservations on the CEDAW.
	2014 – Constitution of the Government of Tunisia	The new constitution adopted in January 2014 includes strong protection for women's rights: Article 21 confirms equality of rights and duties; Article 34 guarantees women's representation in all elected bodies; and, Article 46 ensures protection of human rights.
	2015 - 2018 – Gender Equality Promotion Program in Tunisia (EU-Tunisia)	The financing agreement of the EU-Tunisia program was signed in April 2015. It aims to contribute to achieving gender equality in Tunisia by reducing inequalities at national, regional and local levels.
	Institutions	The National Council of Peers for Equality and Equal Opportunities between Women and Men Ministry of Women, Family and Children

5. *The MedProgramme's Gender Approach, Target and Components*

5.1 *Means to an End: Transformative Gender Mainstreaming Towards Gender Equality*

The conversation on gender mainstreaming to mobilize efforts on gender equality and reduction of discriminatory gender practices and social norms has gained currency as an intellectual concern, technical solution and international consensus. However, the discursive landscape of gender equality has shaped and reconfigured what gender mainstreaming could potentially achieve in different contexts, particularly– *the vision of equality* as sameness, which aspires to a gender-neutral world where women are treated according to the same principles, standards and norms as men, enjoying equal rights and opportunities; and, *the approach of difference or reversal*, which problematizes the existence of unquestioned patriarchal norms, reconstructing the political by seeking recognition of non-hegemonic gendered identities that have been treated as different in comparison to male normative identities and cultures.[92]

This Gender Mainstreaming Strategy adopts the latter transformative approach ('the approach of difference or reversal'), positing a gender equality vision for the MedProgramme that questions established categories and implements positive action measures towards gender-responsive actions in the Mediterranean region. In effect, gender mainstreaming is

[92] Verloo, M. *Multiple Meanings of Gender Equality: A critical frame analysis of gender policies in Europe*, p. 23. (2008)

therefore not an end (goal) of the MedProgramme– rather, a means (process) to an end. This approach reflects also the normative standards defined by the European Institute for Gender Equality (EIGE), which stipulates the importance of identifying gender mainstreaming as a process because it:

"Ensures that policy-making and legislative work is of higher quality and has a greater relevance for society, because it makes policies respond more effectively to the needs of all citizens – women and men, girls and boys. Gender mainstreaming makes public interventions more effective and ensures that inequalities are not perpetuated.

It does not only aim to avoid the creation or reinforcement of inequalities, which can have adverse effects on both women and men. It also implies analyzing the existing situation, with the purpose of identifying inequalities, and developing policies which aim to redress these inequalities, and undo the mechanisms that caused them".[93]

5.2 *Targets and Components of the MedProgramme's Gender Strategy*

Based on the above conceptual hinterland, this Strategy has identified three targets, that the eight Child Projects will address through their tailored assessments and action plans (Section 6):

a. Address *gender-blind* hurdles with *gender-differentiated* consequences.

Although formal gender equality rights and guarantees are almost ubiquitous in the Mediterranean nations, this Strategy recognizes that gender-neutral policy language may not result in gender-egalitarian outcomes, when implemented in a gendered environment, influenced by gender imbalances and biases.[94] The neutral policies and laws, which are veritably gender-blind, often work in concert with social tenets, traditional norms, constitutional interpretations, and cultural expectations in ways that may stymie the advancement of gender-responsive practices. Thus, in tandem with country partners and implementing agencies, the MedProgramme will stipulate the analysis of potential gender-neutral hurdles in project- and site-specific contexts to develop targeted action towards addressing the gender-differentiated consequences.

BOX 1: ***Female entrepreneurship in Mediterranean faces gender-blind hurdles.***

The World Bank reports that seemingly gender-neutral barriers such as cumbersome and costly procedures for opening a business and uncertain chances of recovering assets from a failed venture often have gender-differentiated consequences, notably deterring women's entrepreneurship in the Mediterranean region. Thus, gender-neutral laws, when implemented and interpreted in gendered contexts, often create ambiguities and unintended consequences for the disadvantaged. This also relates to legal inconsistencies and opaqueness afforded to gender-neutral policy language and laws by the fluid interpretation and precedence given to family law and measures, which are often derived from traditional sociocultural norms.

Source: The Environment for Women's Entrepreneurship in the Middle East and North Africa. The World Bank. (2008).

93 See *Good Practices in Gender Mainstreaming,* a technical guide by EIGE.

94 See *The Environment for Women's Entrepreneurship in MENA*, p. 52. The World Bank. (2008)

b. Mitigate *gender-specific* barriers and *discriminatory* norms.

Certain barriers and discriminatory norms are framed with gender-specificity, targeting one gender or more, against normative ideals that stipulate hegemonic social identities. Gender-specific barriers have tangible and invisible discriminatory outcomes, prejudices and stigma, and are often accepted, condoned and tolerated within the larger social framework. To address these barriers, attention, awareness and resources must be accorded to address the effects of the multiplicity of social differences and gender norms to usher in enduring change and assuage the gender burdens on specific demographic groups. The MedProgramme will, hence, develop dedicated project- and country-specific gender assessments and gender action plans for each of its constituent projects and from the preparation phase through to the concluding monitoring and evaluation stage of the project cycle, with objectives (relating to broader project objectives), transformative outcomes (relating to the wider focus of the project), means of verification and indicators.

BOX 2: ***Labor participation has gender-specific barriers in the Mediterranean.***

The Union for the Mediterranean, on the occasion of its Ministerial Conference in Barcelona (2015), brought the focus on the importance of fostering women's participation in economic life and on its obstacles in the region: women's low presence in paid labor, low wages – with lower wages of 10 – 40%, and a low level of access to positions of responsibility and decision-making, These gender-specific barriers are exacerbated by the current unequal share of care, domestic and reproductive unpaid labor performed by women in the Mediterranean. Women also face discrimination, violence and legal inequalities, which impede their ability to leverage opportunities towards empowerment and independence.

Source: Visions and Actions to Promote Gender Equality in the Mediterranean. The Union for the Mediterranean. (2017).

c. Scale up *gender-sensitive* policies and deliver *gender-responsive* outcomes.

Building on the knowledge and analysis of gender-blind and gender-specific barriers, the MedProgramme will have the imperative to use consultative and participatory tools to conduct gender-differentiated beneficiary assessments and formulate gender-sensitive policies to address the same. These gender-sensitive policies will provide the basis for gender-responsive outcomes within the results framework of the different projects, by bringing transformative change towards[95]: promoting equitable access to goods, services, status, and decision-making power (both within policy institutions and households); expanding the subjective and objective range of legal, social and psychological choices available to both men and women; breaking gender stereotypes, norms and patterns; and, providing the conducive environment, through capacity-building in policy institutions, governance structures and local bodies and awareness-raising among communities (particularly, male sensitization), for a pan-Mediterranean gender mainstreaming effort that is verifiable on all three accounts of accountability, transparency and incentive mechanisms.

To scale up and deliver these policies and actions, the MedProgramme will stipulate gender-budget lines within the constituent projects, as dedicated resources need to be mobilized for positive impacts on the gender gap in the region.

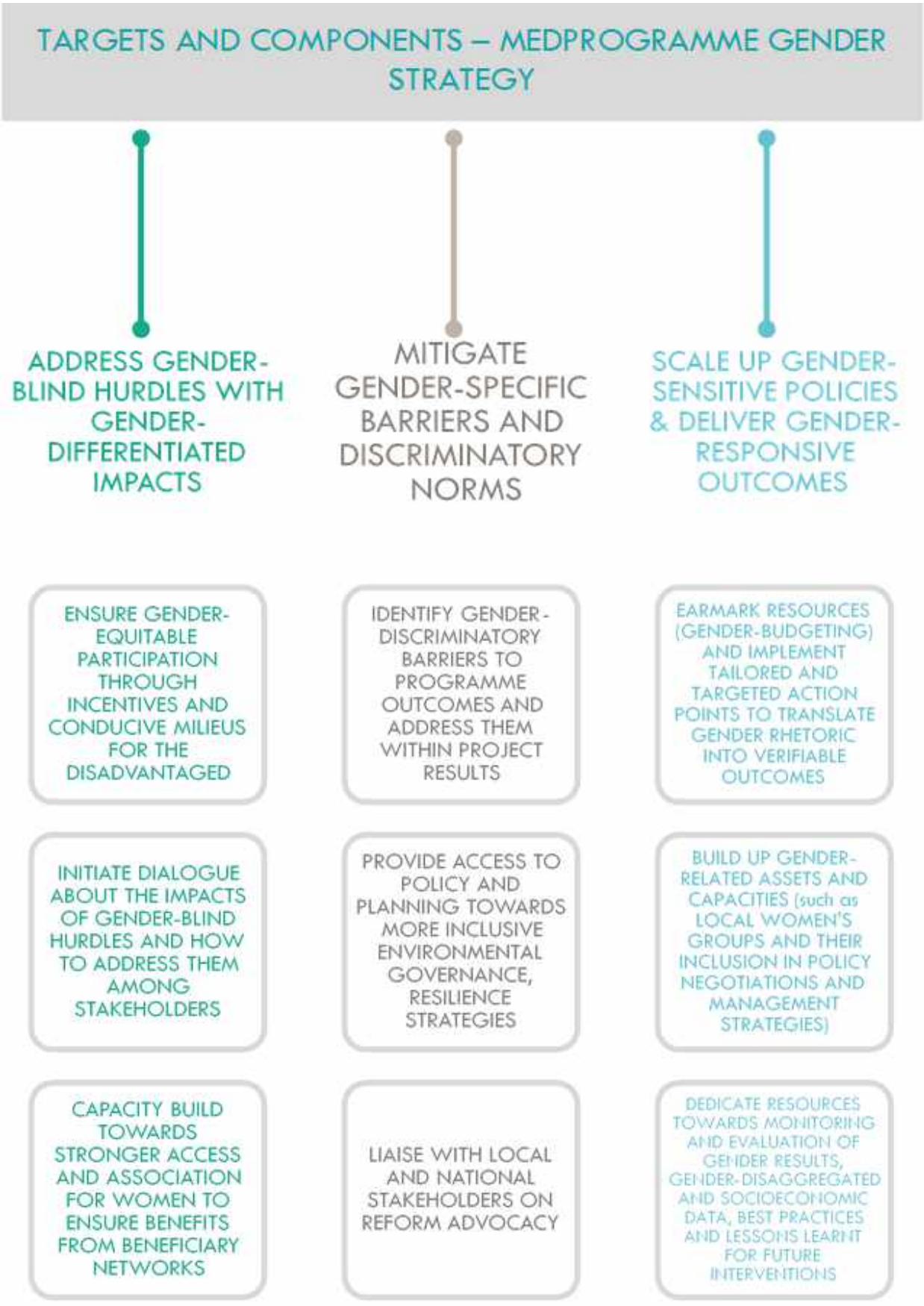
[95] See *Good Practices in Gender Mainstreaming,* a technical guide by EIGE.

BOX 3: ***Agricultural reform requires gender-sensitive policies in the Mediterranean.***
Women's contribution to agricultural labor (particularly smallholder farming) in the Mediterranean Basin is significant: providing diversified income sources to households, creating empowerment opportunities, and boosting national agricultural and economic production. However, this contribution is often underplayed and misrepresented – although women undertake the time-consuming aspects of agricultural work, they often do so without or with scarce pay. Land ownership and tenure security in the Mediterranean displays gendered disparities as well, with succession laws and social customs in effect. FAO's reform framework for agriculture in the region, as highlighted in the May 2018 *Regional Conference for the Near East*, showcases these issues through the "Promoting Food Security, Blue Growth, and Empowerment of Small-Scale Farmers and Women in the MENA region" policy document.
Source: "Mediterranean Women in Rural and Agricultural Communities: Double Jeopardy, Multiple Opportunities". International Centre for Advanced Mediterranean Agronomic Studies. (2018).

5.3 *Visualization of the MedProgramme's Gender Strategy*

Based their justification and review of peer examples, this Strategy has identified the following components for the MedProgramme's gender targets, which reflect the types of actions that will be implemented by the Child Projects, visualized below:

Please see visual from p.14.


TARGETS AND COMPONENTS – MEDPROGRAMME GENDER STRATEGY
ADDRESS GENDER-BLIND HURDLES WITH GENDER-DIFFERENTIATED IMPACTS
MITIGATE GENDER-SPECIFIC BARRIERS AND DISCRIMINATORY NORMS
SCALE UP GENDER-SENSITIVE POLICIES & DELIVER GENDER-RESPONSIVE OUTCOMES
ENSURE GENDER-EQUITABLE PARTICIPATION THROUGH INCENTIVES AND CONDUCIVE MILIEUS FOR THE DISADVANTAGED
IDENTIFY GENDER-DISCRIMINATORY BARRIERS TO PROGRAMME OUTCOMES AND ADDRESS THEM WITHIN PROJECT RESULTS
EARMARK RESOURCES (GENDER-BUDGETING) AND IMPLEMENT TAILORED AND TARGETED ACTION POINTS TO TRANSLATE GENDER RHETORIC INTO VERIFIABLE OUTCOMES
INITIATE DIALOGUE ABOUT THE IMPACTS OF GENDER-BLIND HURDLES AND HOW TO ADDRESS THEM AMONG STAKEHOLDERS
PROVIDE ACCESS TO POLICY AND PLANNING TOWARDS MORE INCLUSIVE ENVIRONMENTAL GOVERNANCE, RESILIENCE STRATEGIES
BUILD UP GENDER-RELATED ASSETS AND CAPACITIES (such as LOCAL WOMEN'S GROUPS AND THEIR INCLUSION IN POLICY NEGOTIATIONS AND MANAGEMENT STRATEGIES)
CAPACITY BUILD TOWARDS STRONGER ACCESS AND ASSOCIATION FOR WOMEN TO ENSURE BENEFITS FROM BENEFICIARY NETWORKS
LIAISE WITH LOCAL AND NATIONAL STAKEHOLDERS ON REFORM ADVOCACY
DEDICATE RESOURCES TOWARDS MONITORING AND EVALUATION OF GENDER RESULTS, GENDER-DISAGGREGATED AND SOCIOECONOMIC DATA, BEST PRACTICES AND LESSONS LEARNT FOR FUTURE INTERVENTIONS

6. *Operationalizing the Strategy – the MED Approach*

Devising a gender mainstreaming strategy denotes only the very outset of a multi-stage policy cycle that requires consistent efforts of integration and consideration of gender perspectives, in each phase of the program and by all actors involved, to succeed.
To operationalize the Strategy, therefore, three necessary elements ('MED' – 5.1) have to be present and inform the different stages of execution, even if the content changes in real time to adequately meet the necessities of project- and site-specific contexts for the different Child Projects, as described below.
Further, a map (5.2) is presented of how the MED Gender Mainstreaming approach is expected to function.

6.1 *Defining the MED Approach*

The approach to be used to operationalize the Strategy is defined below:

a. Multidimensional.

A multidimensional approach ensures that gender is used as a principal analytical category – however not without context or functioning in a void. Linkages between gender, poverty, environmental justice, socioeconomic inclusion, ethnic diversity and customary practices must be identified, analyzed and considered in the formulation of inclusive environmental action and policy. Child Projects, hence, will have the autonomy to identify gender issues relevant to the project objectives and outcomes (gender assessments), and devise strategic as well as appropriate gender action plans to address these.

b. Empowering

Integrating empowerment as an operational imperative ensures that program objectives and technical components are geared towards environmental and socioeconomic co-benefits. This is necessary to convert gender-aware rhetoric and gender-responsive analysis into actionable points within project logframes (logical frameworks), and with dedicated resource allocation (gender-budgeting) – which have positive ramifications for the gender status quo in project-specific contexts both nationally and locally. Child Projects, hence, will ensure gender assessments and action plans dovetail with the locale of project activities, stakeholders involved, and ensure budgetary allocations to translate rhetoric towards actions with verifiable results.

c. Durable.

Durability is the hallmark of a successful strategy/ intervention/project or program. Gender-responsive actions must ensure a shelf life beyond the duration of the project cycle, with positive uptake among national and local stakeholders. Directing investment towards institutional and technical capacity-building, and ensuring ownership of project by stakeholders, will warrant exit strategies for the different Child Projects. Particularly, it will be a program-wide imperative to generate information and data on the linkages between environmental security, climate risks and gender specifically on the Mediterranean region – while, building up capacities of national and local stakeholders to address these in a holistic manner, beyond the duration of the project cycle.

Please see the visualization of the MED approach – and what it entails for Child Projects and the overall MedProgramme below on p.36.

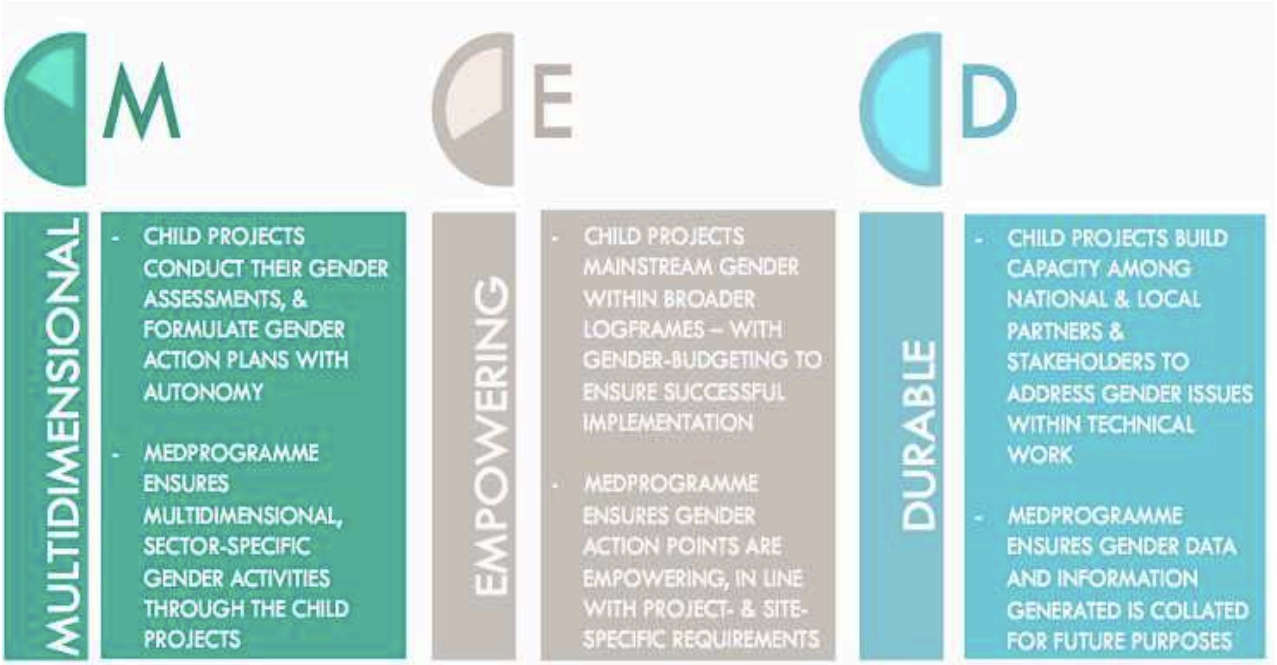


Figure 2: The 'MED' Approach –Child Projects and the MedProgramme (developed by author)

6.2 *Mapping the Programme-wide MED Approach with Child Projects*

Having defined the guiding tenets of Program-wide gender mainstreaming to be devolved for each Child Project, the map (presented as a visual) of how this Strategy will tentatively be operationalized is presented below:

a. Preparation Phase – Child Projects identify gender priorities and actions through Gender Assessments

The MED approach of this Gender Mainstreaming Strategy for the MedProgramme will allow for considerable autonomy, as Child Projects will conduct their own gender assessments. The process of conducting a successful gender assessment includes: identifying the gender directives from the GEF focal point of the Child Project, as well UN Environment's gender priorities with regard to the Child Project thematic; desk-reviews of available literature on the theme from – gender, social development, and political risk perspectives; collating relevant data for the gender considerations from international organizations, development banks, national authorities, and think tanks (economic development-focused); structuring a potential baseline upon which the Child Project can positively impact; and finally, gathering information on relevant gender stakeholders (ministries, independent activist groups, NGOs) and legal mechanisms (gender-progressive laws) who could participate during the implementation phase.

b. Preparation Phase – Child Projects develop Gender Action Plans based on assessments

The individual gender assessments conducted by each Child Project will form the basis for the development of a tailored and strategic Gender Action Plan, which will mainstream action points to positively impact upon the gender status quo under the broader project objective, outcomes and activities, as well develop means of verification indicators to measure progress to impacts at later stages. This will ensure that Child Projects are able to cater to their specific gender priorities and issues, pertaining to country- and site-specific contexts, and address them in holistic manner through their activities. Further, such an

approach will avoid the perils of establishing a 'one-size-fits-all' approach for the MedProgramme, and allow for a nuanced and focused mainstreaming effort spanning the different Child Projects.

c. *Inception and Implementation Phase – Child Projects will plan the execution of action points identified in the Action Plans*

Operationalizing the Action Plans will involve meticulous planning, as well as resource allocation. As the Child Projects move into the inception phase and ground realities of project implementation take shape – the execution of the action points with dedicated gender budgeting will guarantee that the gender rhetoric moves towards practical and verifiable results within the broader project objectives and outcomes. The steady maintenance of momentum of gender mainstreaming, at this stage, is very crucial – and, will require concerted efforts from different actors within Child Projects to ensure gender stakeholders are engaged, capacity and consensus are mobilized, and resources are used to target beneficiaries to leverage both socioeconomic and environmental co-benefits.

d. *Throughout the Project Cycle – Child Project 4.1*

This Gender Mainstreaming Strategy, intended to structure gender-responsive activities and to provide a coherent mainstreaming methodology, will be included as one of the three pillars of the Child Project 4.1 – the support project providing also the knowledge management and coordination pillars to the entire MedProgramme. This gives the Child Project 4.1 a unique position: at once, while providing a gender support structure to the pan-MedProgramme portfolio, it will also provide a platform for 'cross-fertilization' by pooling in gender-relevant research and data (from the different Child Projects) to facilitate Programme-wide learning and exchange.

e. *Reporting and Monitoring – Child Projects align gender results with indicators/develop gender-specific indicators*

In keeping with the *durability* aspect of the MED approach – it is crucial to ensure a prolonged shelf life of the MedProgramme interventions. A step towards this begins in the inception and implementation phase by building capacity and consensus, while mobilizing adequate resources. Going into the reporting and monitoring stages, it will be important for Child Projects to measure progress to impacts against gender-specific indicators that are developed in the Gender Action Plans (in line with GEF gender indicators), to collate Programme-wide gender information and data, and report accordingly. This will also lay the ground for a potential 'extension' of the Gender Mainstreaming Strategy through future interventions – by ensuring these can benefit from the gender-responsive actions, policies and capacity building done in the region, and by expanding the entry points these new projects can take with the information and data generated towards cross-cutting issues such as poverty, water access, land and infrastructure etc.

7. *Conclusion*

This Strategy has stipulated the MedProgramme's gender priorities, targets and components, as well as the operationalizing approach towards achieving the same. The focus has been to usher a change and/or reversal perspective and posit a gender equality vision for the MedProgramme that hopes to question established social and gendered categories and implements positive action measures towards gender-responsive actions in the Mediterranean region. In effect, gender mainstreaming is therefore not an end (goal) of the MedProgramme– rather, a means (process) to an end (greater gender equality).

With international consensus, national priorities and organizational efforts (of the GEF and UN Environment – see 1.2) prioritizing gender mainstreaming as a solution to greater stakeholder involvement, improved environmental results and social outcomes of projects, and ensure inclusivity. In this milieu, this Strategy will generate regional cooperation and contribute to the pan-Mediterranean conversation on the importance of greater gender equality for the overall progress of society, improvement of economy and functioning of a healthy polity.

Annex R

Reports of the stakeholder consultations

(ATTACHED HEREWITH)

The Mediterranean Sea Programme (MedProgramme):
Enhancing Environmental Security

Report of the First Regional Consultation

Athens, Greece
7 – 8 March 2018

Final version 20 April 2018

Conclusions

1. The GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia took note of the progress achieved on the preparation of the Child Projects and validated the proposed activities, the sites chosen for their execution at national level and the timelines for the submission of the Child Projects to the GEF Secretariat for CEO endorsement.

2. The implementing and executing partners agreed to evaluate the feasibility of the specific requests of the countries for additional activities (namely those of Algeria under Child Project 2.1 and Bosnia and Herzegovina and Montenegro under Child Projects 1.1 and 1.3).

3. UN Environment/MAP committed to keep the GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia fully informed of the progress on the development of the Child Projects and to provide the advanced versions of the project documents for comments at the appropriate time to the GEF Operational Focal Points and the country's nominated national thematic experts, if any.

4. The GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia committed to coordinate the gathering of comments from competent national institutions and thematic experts, and to provide UN Environment/MAP with a single set of official comments.

5. Regarding the letters of co-financing, the GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia expressed their preference for a single letter detailing the co-financing contributions for each of the Child Projects of the MedProgramme. The UN Environment / GEF Task Managers for International Waters (IW) and Chemicals and Waste (CW) agreed to seek guidance from the GEF Secretariat and to inform them about how to proceed.

6. The implementing and executing partners and the GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia agreed to take the necessary steps to ensure effective coordination with their respective counterparts in the programme (interministerial bodies, stakeholder groups, etc).

7. UN Environment/MAP took due note of the countries' call to ensure effective coordination among all Child Projects and to consider as much as possible cross-cutting issues like climate change and biodiversity.

Next steps

1. UN Environment/MAP will provide the GEF Operational Focal Points with:

    a. an overview of the national and regional activities of the MedProgramme foreseen in each of the participating countries.
    b. a responsibility matrix indicating the executing structure for each Child Project, including the implementing and executing partners and their respective roles.
    c. the contact information for each of the implementing and executing partners.
    d. clear indications about how to proceed with the preparation of co-financing letters including a template.
    e. an overview of the national stakeholders engaged during the development of the project documents.

    (Note: Items a, b and c will be submitted with the final meeting report of the First Regional Consultation. Items d and e will be provided in due course.)

2. The GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia will provide UN Environment/MAP with:

    a. a list of national thematic experts including specific focal points for IW and CW to whom the advanced draft of the project documents will be sent for comments.
    b. co-financing letters from any relevant national partners, including supporting coordination for combined letters across different child projects as needed.

3. The technical execution partners will support the GEF Operational Focal Points and national focal points in the identification of relevant initiatives which can contribute to the co-financing support by countries. They will also provide UN Environment/ MAP with their own organizational co-financing letters.

Background information

1. The objective of the MedProgramme is to accelerate the implementation of agreed upon priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas while strengthening climate resilience and water security, and improving the health and livelihoods of coastal populations. The MedProgramme was endorsed by the GEF Council in October 2016 and is comprised of seven Child Projects which will contribute to the GEF's focal areas of International Waters (IW), Chemicals and Waste (CW), and Biodiversity (BD) (Table 1). Nine countries have endorsed the MedProgramme: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, and Tunisia. It will be executed over a period of six years starting in 2019.

2. The First Regional Consultation for the MedProgramme was convened by UN Environment/MAP to bring together the participating countries and the implementing and executing agencies to: (i) take stock of progress on the development of the Child Projects; (ii) discuss next steps for completion of the submission package, including letters of co-financing; and (iii) agree upon a timeline for the submission of documents to the GEF Secretariat. The agenda of the consultation is provided in Annex 1.

Table 1 Overview of the MedProgramme components, Child Projects, Executing Agencies and GEF Focal Areas

Mediterranean Sea Programme (MedProgramme)			
MedProgramme Component	**Child Project**	**Indicative lists of executing Agencies**	**GEF Focal Areas**
1. Reduction of Land Based Pollution In Priority Coastal Hotspots, and measuring progress to impacts	1.1 Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts	UNEP/MAP	IW and CW
	1.2 Mediterranean Pollution Hot Spots Investment Project.	EIB UNEP/MAP	IW and CW
	1.3 Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC).	EBRD UNEP/MAP	IW and CW
2. Enhancing Sustainability and Climate Resilience in the Coastal Zone	2.1 Mediterranean Coastal Zones Climate Resilience Water Security and Habitat Protection.	UNEP/MAP UNESCO-IHP GWP-Med	IW
	2.2 Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem NEXUS.	GWP-Med UNEP/MAP	IW
3. Protecting Marine Biodiversity	3.1 Management Support and Expansion of Marine Protected Areas in Libya.	UNEP/MAP IUCN WWF Med	BD
4. Knowledge Management and Programme Coordination	4.1 Mediterranean Sea Basin Environment and Climate Regional Support Project.	UNEP/MAP	IW and CW

Attendance

3. The regional consultation brought together 40 participants, including representatives from eight of the nine countries that endorsed the MedProgramme and all seven of the implementing and executing agencies. The complete list of participants is set forth in Annex 2.

4. The names, titles and affiliations of the GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Montenegro, Morocco and Tunisia and their nominated representatives that participated in the regional consultation are provided in Table 2. It should be noted that the GEF Operational Focal Point of Libya, Mr. Mustafa Soliman, confirmed his wish to attend the consultation, but was unable to do so as a result of difficulties encountered in the organization of his travel by UN Environment/MAP.

Table 2 Names, titles and affiliations of the GEF Operational Focal Points and the nominated representatives that participated in the First Regional Consultation for the MedProgramme

Country	Representative(s)	Title and affiliation
Albania	Ms. Ornela Çuçi*	Vice Minister, Ministry of Tourism and Environment
Algeria	Ms. Samira Hamidi	Inspectrice Centrale de l'Environnement et du Développement Durable, Ministère des Ressources en Eau et de l'Environnement Direction Générale de l'Environnement et du Développement Durable
Bosnia and Herzegovina	Dr. Senad Oprašic*	Head of Environmental Protection Department, Ministry of Foreign Trade and Economic Relations
Egypt	Mr. Mohamed Shehab AbdelWahab*	Chief Executive officer of Egyptian Environmental Affairs Agency, Ministry of Environment
	Dr. Mohamed Osman	Undersecretary, Head of Sector, Environmental Management Sector, Ministry of Environment
	Mr. Moustafa Fouda	Advisor to the Minister on Biodiversity
Lebanon	Ms. Olfat Hamdan	Head of Protection of Urban Environment Department, Ministry of Environment
	Mr. Adel Yacoub	Head of Department, Protection of Natural Resources Department, Ministry of Environment
	Mr. Paul Moussa	Agricultural Engineer, Department of Natural Resources Protection, Ministry of Environment
Montenegro	Mr. Esef Husic	Acting General Director for Climate Change and Mediterranean Affairs, Ministry of Sustainable Development and Tourism
	Ms. Ivana Stojanovic	Advisor, Department for Mediterranean Affairs, Ministry of Sustainable Development and Tourism
Morocco	Ms. Nassira Rheyati	Chef de Service Coopération Multilatérale, Division de la Coopération Internationale, Direction du Partenariat, de la communication et de la Coopération, Secrétariat d'Etat chargé du Développement Durable
Tunisia	Mr. Karim Sahnoun	Directeur du suivi des conventions et des projets de coopération avec les partenaires étrangers, Direction Générale des Relations Extérieures, Ministère des Affaires Locales et de l'Environnement

* GEF Operational Focal Point

Presentations

5. Presentations were delivered for each of the MedProgramme's seven Child Projects and the GEF Special Climate Change Fund (SCCF) Project, in addition to three presentations on the development process for the MedProgramme. The present report does not attempt to summarize these presentations, but focuses rather on the discussions they prompted.

6. All of the presentations delivered during the regional consultation are available at: https://www.dropbox.com/sh/zp1kqx6jl9ss8jk/AAD-1U2ik3rfHt5RKOkKza6Za?dl=0.

Welcoming remarks and initial discussions

7. Mr. Lorenzo Galbiati, UN Environment/MAP Secretariat (hereafter the Secretariat), welcomed the participants to Athens on behalf of the Coordinator of the Barcelona Convention Mr. Gaetano Leone. The Secretariat recalled the 40 year collaboration among the Convention's Contracting Parties, partners and UN Environment/MAP towards a shared vision for "a healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse contributing to sustainable development for the benefit of present and future generations." The Secretariat observed that the assessments, diagnostics, planning and experimentation carried out during this time had led to a consensus on priority areas for further intervention, and that together, the countries, UN/Environment MAP, the European Investment Bank, UNESCO-IHP, GWP-Med, WWF MedPO and IUCN have responded to this need by developing the Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security. The MedProgramme will support countries by providing a comprehensive response to the provisions of the Barcelona Convention and its Protocols, of other legally binding agreements and other instruments and programmes, among them the Stockholm and Minamata Conventions and the UN Environment Global Programme of Action. The Secretariat reminded participants that the GEF Council approved the MedProgramme at the end of 2016 and will support its execution through grants from the International Waters, Chemical and Waste and Biodiversity Focal Areas. In conclusion, the Secretariat stated that the focus of the regional consultation was to update the countries on the status of the development of the MedProgramme and to agree together on the next steps to complete the process.

8. Participants were also welcomed by the MedProgramme's two implementing agencies: UN Environment and the European Bank for Reconstruction and Development (EBRD).

9. Mr. Yegor Volovic, the UN Environment GEF Task Manager for International Waters (IW), recalled the longstanding collaboration among GEF and the countries in the region, through the Barcelona Convention (for the Mediterranean Sea) and the Bucharest Convention (for the Black Sea). He also noted the forward-thinking vision of the MedProgramme (approved under GEF-6) which has environment security as its focus, a theme that is now well-established in GEF-7.

10. Ms. Eloise Touni, the UN Environment GEF Task Manager for Chemicals and Waste (CW), spoke about the multi-focal area approach of the MedProgramme and explained that this will be the GEF's strategy going forward. She explained that the GEF's activities on CW in the MedProgramme would support countries in efforts to meet obligations for POPs and mercury under the Stockholm, Basel and Minamata Conventions.

11. Ms. Dana Kupova, Principal of Resource Efficiency Investments at EBRD, explained EBRD's 10 year collaboration with the GEF Secretariat, which to present has focused on climate change

adaptation and mitigation, and expressed her positive anticipation about expanding the Bank's activities to the IW and CW focal areas.

12. The Secretariat reviewed the agenda of the consultation with participants and briefly outlined the desired outcomes of the two-day event.

13. The representatives of several countries (Bosnia and Herzegovina, Egypt and Lebanon) asked for clarification on the modality for execution of activities at the national level. The Secretariat first clarified the distinction between GEF implementing and executing agencies. Implementing agencies of the GEF are responsible for delivering project proposals to the GEF Secretariat and liaising with the Secretariat and countries at the GEF Council, in addition to providing general oversight and quality control. Executing agencies of GEF projects are responsible for carrying out project preparation and execution of the activities on the ground with national, regional and international organizations, as appropriate, to achieve the expected results of the project. For the MedProgramme, the two implementing agencies are UN Environment and EBRD, and the seven executing agencies are UN Environment/MAP, EIB, EBRD, UNESCO-IHP, GWP-Med, IUCN and WWF-Med.

14. The Secretariat added that activities would be executed at the national level through a variety of arrangements, including through UN Environment's Regional Activity Centres (RACs), through international organizations like UNESCO, WWF and GWP-Med, and through other execution modalities. The Secretariat informed the participants that consultations organized with the countries to date on individual Child Projects (Annex 3) had clarified these arrangements in a number of cases and that future consultations would provide further opportunities to do so. Ultimately, it is up to the participating countries to express their wishes on the best approach to executing activities at the national level, in a manner that is compatible with the rules and regulations of the GEF Secretariat and the executing UN agencies, as well as the available resources for each Child Project.

15. In response to a question about the need to reflect emerging issues in the MedProgramme, the partners explained that GEF funds are earmarked for specific priority areas. For example, the issue of marine litter was not eligible under GEF-6 and was therefore not reflected in the MedProgramme. The issue of marine litter nevertheless will be tackled in the region thanks to complementary initiatives of the MAP system, and will furthermore be eligible under GEF-7. The UN Environment GEF Task Manager for IW reminded the participants that Mediterranean countries express their priorities on environmental issues via three consultative bodies (the UN Environment Assembly, the GEF Council and the Barcelona Convention) and on chemical-specific issues via their participation as Contracting Parties to the Stockholm and Minamata Conventions.

16. Mr. Esef Husic, Acting General Director for Climate Change and Mediterranean Affairs of Montenegro, also intervened to greet the participants of the meeting on behalf of the Ministry of Sustainable Development and Tourism of Montenegro and Mr. Igor Gradjevic, the GEF Operational Focal Point of Montenegro. He pointed out the positive experience of Montenegro during implementation of the MedPartnership and reminded of the exceptional results achieved in that process such as the preparation and adoption of the National Strategy for Integrated Coastal Zone Management (NS ICZM), preparation of the Integrated Resources Management Plan (IRMP) for the Buna/Bojana Area, vulnerability assessment of the coastal area to climate change including the sea-level rise, and the mapping of the valuable coastal habitats, etc. On the basis of these results and in line with NS ICZM, and the National Action Plan (NAP) for the implementation of the LBS Protocol and NAP for protection of the coastal biodiversity, Montenegro reiterated its priorities for the MedProgramme, including:

- Disposal of harmful waste containing PCBs and remediation of the hotspots, in the framework of the Child project 1.1 and in synergy, if possible, with Child project 1.2;
- Preparation of the local plans which mainstream the adaptation measures to climate change as part of the SCCF Project;
- Realization of priorities determined in the IRMP for the Buna/Bojana Area related to mapping of vulnerability of groundwater, identification of the level of pollution of the groundwater in aquifers, and establishment of the regular monitoring of groundwaters together with their baseline assessment.

Day 1 Agenda Item 1: Setting the scene and objectives of the consultation

17. The Secretariat emphasized that the MedProgramme was designed to accelerate the implementation of agreed actions identified from a series of transboundary diagnostic analyses of the Mediterranean Sea and subsequent strategic action programmes (SAP-MED and SAP-BIO) elaborated in the context of the Barcelona Convention at the request of its Contracting Parties. The MedProgramme is a direct contribution to the implementation of the UN Environment/MAP's Mid-term Strategy 2016 – 2021.

Day 1 Agenda Item 2: Report on progress for preparation of the MedProgramme documents

18. The Secretariat provided an update on the status of the logframes and project documents for each of the Child Projects and the SCCF Project (Table 3)

Table 3 Status of the logframes and project documents for the MedProgramme and the SCCF Project

Project	Logframe status	Project document status
Child Project 1.1	Preliminary draft prepared	Preliminary draft under preparation
Child Project 1.2	Intermediate draft prepared	Preliminary draft prepared
Child Project 1.3	Intermediate draft prepared	Intermediate draft under preparation
Child Project 2.1	Advanced draft prepared	Advanced draft prepared
Child Project 2.2	Preliminary draft prepared	Preliminary draft under preparation
Child Project 3.1	Preliminary draft prepared	Not yet initiated
Child Project 4.1	Intermediate draft prepared	Intermediate draft prepared
SCCF Project	Advanced draft prepared	Advanced draft prepared

19. The Secretariat provided an overview of the national and regional interventions planned for all countries (Annex 4). A matrix of responsibilities of the executing partners is set forth in Annex 5.

20. The representative from Egypt congratulated the partners on the progress achieved towards preparation of the MedProgramme, and expressed his view that biodiversity and climate change were not adequately addressed in the planned activities. The Secretariat explained that the MedProgramme reflected the GEF Council's priorities and was funded primarily with earmarked funds from the IW and CW focal areas, but that these issues were being addressed through complementary activities in the region. For biodiversity, this includes the MED MPA Project, the 2020 MPA Roadmap, and the technical support activities of SPA/RAC; and for climate change, this includes a variety of GEF interventions, including the Special Climate

Change Fund Project that will address climate change adaptation in six Mediterranean countries. The Secretariat acknowledged that the MedProgramme cannot address every issue, and for this reason it was better to focus on priority areas to achieve greater impacts. The UN Environment GEF Task Manager for IW offered to work with the countries to develop medium-sized projects to address other priorities, as this type of project can be approved faster that full-size projects or programmes.

21. The representative of SPA/RAC thanked the representative of Egypt for drawing attention to the need to strengthen efforts to protect biodiversity in the region, and noted that many other countries have raised this point in other contexts. In the opinion of the representative of SPA/RAC, this is a sign that the GEF Secretariat needs to consider including a regional biodiversity component in all regional projects/programmes, in view of its link to other areas including pollution and coastal zone management. The representative of SPA/RAC asked UN Environment to consider approaching the GEF Secretariat on this issue. The UN Environment GEF Task Manager for IW indicated that there were good opportunities for this in GEF-7 since its priorities include the blue economy and marine biodiversity, and that IW was a good entry point for transboundary MPAs, for example.

22. The representative of Morocco, speaking about her experience in the preparation of the Child Projects of the MedProgramme and the SCCF Project, pointed out that there is a need for the country to nominate a specific focal point for each of the projects, since the GEF Operational Focal Point and the MAP Focal Point (the same person in this case) cannot manage the entire portfolio of projects. The Secretariat suggested that each country could have a national focal point for each specific technical issue and that these focal points could be consulted (along with the GEF Operational Focal Point) when needed and invited to attend steering committee meetings for the projects that fall under their area of expertise. The UN Environment GEF Task Manager for IW agreed that each country needed specific focal points for the various projects.

Day 1 Agenda Item 3: Next steps and timeline for submission of documents to the GEF Secretariat

23. The Secretariat described the next steps for completion of the project documents, including the gathering of additional baseline information, organization of national consultations, preparation of co-financing letters, and validation of project documents by the GEF Operational Focal Points.

24. The Secretariat then presented the tentative timeline for submission of the project documents to the GEF Secretariat (Table 4).

Table 4 Targets for submission of project documents for review and endorsement

Project	**Target for submission of project document to GEF for CEO endorsement**
Child Project 1.1	July 2018
Child Project 1.2	August 2018
Child Project 1.3	July 2018
Child Project 2.1	June 2018
Child Project 2.2	August 2018
Child Project 3.1	October 2018
Child Project 4.1	June 2018
SCCF Project	June 2018

25. The Secretariat recalled that each country would need to indicate clearly the different co-financing contributions for each of the relevant Child Projects, and that these contributions would be monitored on an annual basis. Furthermore, the modality for the preparation of co-financing letters in the context of a programmatic approach needs to be discussed with the GEF Secretariat, considering that normally one co-financing letter would be required per project per country (the MedProgramme would require more than 50 co-financing letters under this arrangement). There is clearly a need to simplify this process for the MedProgramme. The UN Environment IW Task Manager agreed to liaise with the GEF Secretariat to clarify this issue and propose an acceptable solution.

Day 1 Agenda Item 4: Child Project 1.1

26. Child Project 1.1 will be executed by UN Environment/MAP, in coordination between MED POL and two of UN Environment/MAP's Regional Activities Centres – SCP/RAC and Plan Bleu. The project is expected to deliver the following main outcomes:

    - In coastal hot spots, measurable reduction of wastes and hazardous chemicals (POPs, mercury) impacting human health and coastal habitats is achieved;
    - Update of the baseline situation (TDA), harmonization of monitoring protocols, methodologies and procedures in compliance with Integrated Monitoring and Assessment Programme (IMAP) of the Barcelona Convention, including design of offshore reference network and gender assessment.

27. The discussion ensuing the project's presentation by the representatives of MED POL and SCP/RAC touched upon various aspects, including requests for clarifications on the selection of countries, sites and options prioritized in the preliminary proposal for disposal (POPs/PCBs and mercury) activities. Another important question raised by the participating countries was about coordination between various implementing/ executing agencies within MedProgramme as well as with other implementing agencies of related (GEF-funded or not) projects.

28. The representative from Montenegro highlighted the need for cooperation and coordination between Child Projects 1.1 and 1.3 to address national priorities, including contaminated sediments at the former shipyard Bijela (categorized as the hot spot B in the Barcelona Convention National Action Plan – NAP) and provision of incentives to phase out in use PCBs in the aluminum plant in Podgorica. Furthermore, country missions were called for in order to discuss matters in greater detail. The need for coordination with the GEF-UNDP project for safe removal of PCBs was also highlighted.

29. The Secretariat explained that a partner coordination meeting would follow the two-day country consultations to address, among other things, specific issues raised by Montenegro. Missions to countries would be planned based on the partners' meeting discussions. The Secretariat emphasized the need for cooperation within the MedProgramme and with sister agencies, while avoiding double-counting and overlapping between different activities. The representative of UN Environment/MAP - MED POL reminded that endorsement letters for the PCBs management were issued by Montenegrin authorities to both UN Environment/MAP and UNDP. Missions to countries (possibly joint for Child Projects 1.1 and 1.3) could take place in April 2018, to be facilitated by national authorities.

30. The representative of Bosnia and Herzegovina informed of the progress with preparation of the mercury initial assessment (MIA) and pointed out two locations where pronounced mercury contamination problems were identified. A plea was made to include Bosnia and

Herzegovina in the MedProgramme mercury removal activities. The representative of UN Environment/MAP - MED POL explained the reasons for not including Tuzla site in the preliminary plan for mercury disposal under Child Project 1.1, including its location (far outside the Mediterranean watershed) and the fact it was not addressed in the country's NAP, as well as MED POL Focal Point's confirmation of these facts. The representative of Bosnia and Herzegovina was invited to provide the MED POL with the MIA report.

31. The Secretariat considered that the feasibility of inclusion of the sites outside the Mediterranean watershed should be checked with the GEF Secretariat. The UN Environment GEF Task Manager for CW emphasized the importance of the national priorities (as identified in the relevant plans prepared under the Stockholm and Minamata Conventions) for the development of the MedProgramme interventions and welcomed more detailed proposals by the countries. A reference was made to Child Project 1.1 presentation on new POPs prevention opportunities and a recommendation was made to ascertain that calculations of any quantities to be offset through project interventions were acceptable to GEF Secretariat.

32. The representative of Lebanon expressed an agreement with presented criteria for preliminary selection of countries and sites for Child Project 1.1 disposal interventions and enquired about inclusion of specific locations and disposal options for Lebanon. As regards new POPs and mercury prevention, ideas were exchanged on how to validate the baseline data; working with lamps containing mercury was singled out as a viable prevention (and disposal) option.

33. The representative of Tunisia endorsed in principle the national activities included in the preliminary plan/ presentation for Child 1.1 (as well as for Child Project 1.2), emphasizing at the same time the need for assistance with remediation of POPs/ PCBs contaminated sites in the country.

34. The representative of Morocco pointed out the use of the PCBs management platform located in Casablanca could lower disposal costs for the proposed activities (compared to exports to the EU).

Day 1 Agenda Item 5: Child Project 1.2

35. European Investment Bank (EIB) is the main executing agency for the Child 1.2 project, with a contribution from UN Environment/MAP for the regional level activities (development of standards). The following main results are planned to be achieved through the project's components that will be executed by the EIB:

    - Reduction of organic pollution reaching the Mediterranean Sea causing coastal ecosystem degradation;
    - Depollution and water resources management at the level of catchments which are draining into the Mediterranean, in order to improve the human, environmental and health situation and reduce the contaminants loads entering the Mediterranean Sea;
    - Reduction and control of chemical and organic pollution from past and present industrial activities in coastal areas impacting human health and livelihoods, and coastal ecosystems, thereby reducing pollution discharges to the Mediterranean Sea;
    - Preparation of pre-investment studies for mercury decontamination and conversion of industrial processes.

36. Under Child Project 1.2 project, a 7 million USD GEF grant[1] will be utilized to support preparation of investments and strengthen capacities needed to reduce pollution in the Mediterranean hot spots. In the course of the preparation of the programme framework document (PFD), Child Project 1.2 was projected to mobilize up to 500 million USD in co-financing. The representative of EIB presented specific sites and type of interventions considered for technical assistance under the GEF grant, including three projects in Egypt (wastewater treatment plants - WWTPs - and drains depollution), upgrade of a wastewater collection and treatment system (for the city of Tripoli) in Lebanon, upgrade of 10 WWTPs in Tunisia, and mercury depollution projects in Morocco and Tunisia. Following the EIB's presentation, the Secretariat asked whether the initially identified co-financing amount was still applicable.

37. The representative of EIB explained the background to the selection of areas of work presented at the meeting, including linkages to the Horizon 2020 goal of depolluting the Mediterranean and the pipeline of projects identified through the EU-funded Mediterranean Hot Spots Investment Programme (MeHSIP), the latter serving as the starting point for identification of specific projects to be developed through Child Project 1.2. The Barcelona Convention NAPs were also used as references, in particular for identification of hot spots (and in some instances for consideration/ cross-checking of specific projects). The representative of EIB reported that the co-financing is currently assessed at the level of 510 – 550 million USD, depending on bankability of the projects to be developed and willingness of the countries/ project promoters to borrow to implement specific interventions. Without the bankability of the selected projects, and the willingness of the countries to borrow, the co-financing would be not possible.

38. The representative of Lebanon raised a question on the possibility to add Saida WWTP and other projects (referring to reuse of treated wastewater and aquifer recharge) identified by national stakeholders to the MedProgramme/Child Project 1.2 selection process. The representative of EIB explained the selection started from the MeHSIP approved list of 24 projects and that there were delays in signing the cooperation agreement with Lebanon. Nevertheless, the Bank remains open for proposals of other projects for Lebanon (including Saida WWTP) provided that eligibility criteria are met.

39. The representative of Tunisia asked for clarification on the GEF grant funding for the MedProgramme Component 1 projects versus loans planned for specific projects implementation. UN Environment/MAP clarified the loan component (shown in the approved PFD as the Child Project 1.2 co-financing) referred to hard loans/ EIB funding to be approved for mature projects while as the in-kind portion of the total Child Project 1.2 co-financing referred to the share of the EC funds extended for the same purpose. The representative of Tunisia confirmed that the national projects (upgrade of 10 WWTPs in different regions, mercury depollution at SNCPA plant in Kasserine) considered under the Child Project 1.2 were in line with the national priorities, as outlined in the country's NAP and mercury initial assessment/ action plan.

40. The UN Environment/MAP - MED POL presented its work on Child Project 1.2 related to the outcome on standards, i.e. development of common environmental standards for desalination, aquaculture and wastewater treatment. The intent is to develop, in the course of Child Project 1.1 implementation, a set of regional standards to enable better regulation (including eventual adoption of the new/updated Regional Plans) of activities and sectors where the gaps in the Barcelona Convention's regional measures to achieve Good Environmental Status (GES) in the Mediterranean have been identified.

[1] Five million USD from International Waters Focal Area and 2 million USD from Chemicals and Waste.

41. The interventions of the representatives from Lebanon and Egypt emphasized the existence of strong national standards in some of the areas that will be subject to standards development and the sensitivities/ difficulties with adoption of regional ones (including the need for regional standards to be tuned with national ones). For wastewater and sludge management, preparation of guidelines was seen as more pertinent than the development of standards. The need to mobilize and use all the existing technical knowledge in the region in the course of implementing this set of regional activities was recommended.

42. The representative of UN Environment/MAP - MED POL reiterated the development of standards was planned for the areas where the existing regional/ Barcelona Convention measures were assessed as insufficient to reach the GES. The outputs of the Child Project 1.2 activities will feed into the process of updating the existing and/or developing new Barcelona Convention Regional Plans, whereas the decision making process will be fully conducted in line with standard procedures of the Convention and its governing bodies. The work on the development of standards and new/updated Regional Plan is integrated in the UN Environment/MAP Programme of Work for the current biennium.

43. The representative of WWF pointed out the new INTERREG project implemented by WWF France (including work on aquaculture) should be consulted in the course of development of aquaculture standards.

Day 1 Agenda Item 6: Child Project 1.3

44. As the GEF Implementing Agency, the EBRD is leading on the preparation of Child Project 1.3 which will produce the following outcomes:

    - Public/ private investments enable pollution reduction in priority coastal and catchment areas through the improvement of water and waste water management systems and the introduction of modern and efficient technologies and practices;
    - Prevention or elimination of POPs.

45. Compared to Child Projects 1.1 and 1.2, preparation and implementation of the Child Project 1.3 has certain specificities due to the EBRD's different work approaches. The focus will be on municipalities and on private sector, with a dynamic project pipeline identified based on project selection criteria. The IW component of the project will focus primarily at municipal wastewater treatment projects. The areas of interest for the CW component (POPs elimination) will be electricity distribution companies, industries (where POPs/ PCBs disposal and prevention activities are likely to be linked to larger modernization loans/ packages) and potentially agri-business (for possible substitution and disposal of POPs pesticides that are still in use). Due to the dynamic nature of developing the project pipeline, sites and companies (potential beneficiaries of the project), will not be known at this stage, and the Bank's internal rules limit options for their disclosure to third parties.

46. The representative of Montenegro pointed out that no information on the Child Project 1.3 development activities had been received by the country so far and expressed interest/need to hold consultations and learn more about the scope of work of the consultants conducting pertinent assessments for the EBRD. A similar intervention was made by the representative of Albania, emphasizing the need to meet the consultants and discuss priorities with them. The representative of Bosnia and Herzegovina highlighted the need for more detailed discussion as regards prevention of new POPs, and suggested the Child Project 1.1 and Child Project 1.3 activities should be combined. In addressing these interventions, the representative of EBRD explained the work conducted so far was aiming to generate a

snapshot of the countries' situation and that the National Implementation Plans (NIPs) for the Stockholm Convention have been analyzed. Based on these analyses, project selection criteria would be defined and project pipeline built.

47. The representative of EBRD explained the GEF funding would be used for technical assistance (including project preparation) and potentially for grants to overcome specific market barriers associated with the implementation of environmental technologies. Another potential use of the GEF funds is provision of technical assistance (including project preparation). For the time being, EBRD is not considering use of intermediary banks in the projects' implementation phase.

48. The representative of Montenegro pointed out the links between Child Projects 1.1. and 1.3 and expressed interest to explore possibilities to address two priority sites (Aluminum plant and former shipyard Bijela) through the MedProgramme and in coordination with the ongoing UNDP and the World Bank projects (the former funded by the GEF, the latter through the World Bank loan). The representative of EBRD took note of the interventions, flagged the two sites as potential Child Project 1.3 project sites, and emphasized the Bank could provide loans for the larger investment interventions while using GEF funds for technical assistance and grants. Further discussions and coordination are necessary to define possible interventions.

49. The representative of Lebanon raised the question about potential overlap concerning what Child Projects 1.1 and 1.3 are aiming to deliver. The Secretariat pointed out the differences in the targets of the two projects while the representative of EBRD highlighted the difference in the funding approaches: for example, potential disposal of PCBs supported through Child Project 1.3 funding would be coupled with the Bank's loan for new investments leading to improved management of chemicals and wastes.

50. The question of expected submission date of the Child Project 1.3 to the GEF Secretariat was raised. The representative of EBRD explained the process was challenging nevertheless the completion of project preparation phase was planned for mid-summer.

51. The representative of Albania asked for clarification on potential beneficiaries of the projects to be funded through Child Project 1.3. The representative of EBRD explained sovereign lending was not considered for the time being, while as municipal and private sectors were identified as the key potential recipients (municipalities in particular for the IW component and waste water management improvements).

52. Regarding the regional level activities, the representative of EBRD explained the strategy was to ensure that experiences with successful national interventions would be disseminated across the region and potentially replicated in partnership with participating and other companies.

53. The representative of Tunisia emphasized the necessity for coordination between different executing Agencies, since some activities concern three child projects (1.1, 1.2 and 1.3).

Day 2 Agenda Item 2: Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience Water Security and Habitat Protection"

54. Child Project 2.1 will be executed jointly by UN Environment/MAP and two of its RACs (PAP/RAC and Plan Bleu) and by UNESCO-IHP and GWP-Med. The Child Project will achieve the following outcomes:
    - Coastal zone sustainability enhanced through the adoption of comprehensive ICZM strategies, coastal plans and instruments (MedProgramme Outcome 4).

- Increased resilience to climate variability and change, and enhanced water security of coastal populations through improved sustainability of services provided by coastal aquifers and by groundwater related coastal habitats (MedProgramme Outcome 5).

55. The representative of Algeria expressed interest in discussing the possibility of Algeria benefitting from national level activities in the context of Child Project 2.1. The Secretariat responded that Algeria had endorsed the MedProgramme in December 2017, when the preparation of Child Project 2.1 was already well advanced. Algeria will benefit from the regional activities foreseen in this Child Project (e.g., training and capacity building including on submarine groundwater discharges, gender and conjunctive management of water resources; awareness raising; support to ICZM Protocol ratification; etc.). The executing partners agreed to evaluate the possibility of accommodating Algeria's request. However, the representative of UNESCO-IHP expressed concerns about the constraint of the budget available for the MedProgramme Outcome 5 and the risk of jeopardizing the successful implementation of initially foreseen activities by increasing the number of national activities.

56. The representative of Egypt observed that the execution of a project with four partners would be challenging and also pointed out the need to consolidate the monitoring framework for Child Project 2.1. In response, the executing partners first recalled their successful joint execution of activities for the MedPartnership, including the development of the Integrative Methodological Framework (IMF), a practical tool to integrate considerations of integrated coastal zone management, integrated water resources management and groundwater management. This tool will guide the partners in the integration of their individual and joint activities for Child Project 2.1. Next, with respect to monitoring, the executing partners recalled that the project would benefit from an existing monitoring framework established for the Barcelona Convention, including the Integrated Monitoring and Assessment Programme (IMAP) for the achievement of good environmental status in the Mediterranean, and indicators related to implementation of the ICZM Protocol, the Mediterranean Strategy for Sustainable Development, and the ecosystem approach, amongst others. Finally, the Secretariat reminded the participants that one of the objectives of Child Project 4.1 was to ensure the effective coordination among all projects and partners, including through the organization of yearly stocktaking meetings, communication tools such as the MedProgramme website and the establishment of a Programme-wide results monitoring framework.

57. The representative of Montenegro took the opportunity to request assistance on transboundary cooperation with Albania related to Child Project 2.1 and to draw attention to some additional priorities regarding the focus of groundwater activities. First, the representative of Montenegro reminded the participants that the Buna/Bojana area had been officially confirmed as Montenegro's priority area for Child Project 2.1 and that an integrated resource management plan had been developed for this area in the context of the MedPartnership. A framework agreement between Montenegro and Albania for the sustainable development of Skadar Lake and Buna/Bojana was subsequently drafted and is currently awaiting signature by the two countries. The plan includes the establishment of a joint commission between Montenegro and Albania to support its implementation. In view of this, the representative of Montenegro requested that efforts be made under Child Project 2.1 to support the establishment of the joint commission with Montenegro and Albania, once the agreement has been officially adopted. On a related note, the representative of Montenegro also stated that the integrated resource management plan for the Buna/Bojana area called for the preparation of vulnerability maps for the area's aquifer as well as monitoring of groundwater parameters. The representative of UNESCO-IHP congratulated the representatives of Montenegro and Albania on their cooperation and confirmed UNESCO's willingness to work with both countries on the joint commission, and to address the requested

aquifer vulnerability mapping within its activities for Child Project 2.1. UNESCO-IHP highlighted at the same time its concerns about the limitation of available funds.

58. The representative of Morocco recalled the country's request to monitor hydrographic indicators in the context of Child Project 2.1 and to ensure effective coordination between the activities of Child Project 2.1 on ICZM and those of the SCCF Project on climate change adaptation in the coastal zone. The representative of Morocco also thanked the executing partners for integrating its expressed priorities into the design of the activities for Child Project 2.1.

59. The representative of Tunisia indicated that an official letter documenting the country's priorities for Child Project 2.1 would soon be transmitted to UN Environment/MAP, and also confirmed that the priorities of Tunisia for this Child Project are: for the aquifer, it is the Ras Jebel coastal aquifer, and for ICZM, the region of coastal area of the Gulf of Monastir and the Kerkennah Archipelago.

60. As at 7 March 2018, official letters expressing priorities for activities under Child Project 2.1 have been received from the GEF Operational Focal Points of Egypt, Morocco and Lebanon.

Day 2 Agenda Item 3: Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

61. Child Project 2.2 will be executed jointly by UN Environment/MAP and GWP-Med, and will achieve the following outcomes:
    - Enhanced water, food, energy and ecosystems integrated governance, security and sharing of benefits;
    - Reduced trade-offs among sectors and more balanced competing water uses;
    - Sustainability of basin/aquifers and coastal and marine zones as well as supported economic activities and biodiversity.

62. Following an overview of the Child Project, the representative of GWP-Med informed the participants that two sub-regional consultations would be organized in the coming months: one in the Adriatic and one in the MENA region. These consultations will provide ample opportunities for the countries to express their priorities with respect to the planned activities, which include assessments and plans based on the nexus approach.

63. The representative of Albania expressed interest in participating in the activities of this Child Project, provided that the outputs are action-oriented and do not simply involve the elaboration of strategies. The representative of GWP-Med confirmed that the outputs include action plans, but reminded the participants that it was ultimately the country's responsibility to ensure their implementation.

64. The representative of Lebanon inquired about the possibility of undertaking national level activities of this Child Project in Lebanon. The representative of GWP-Med indicated that this was a possibility, especially in view of the strong synergies that could be achieved with the activities foreseen in Lebanon for Child Project 2.1, including sustainable management of the Damour aquifer and the preparation of the National ICZM Strategy.

65. The representative of Morocco expressed interest in exploring the possibility of taking part in the activities of this Child Project, recalling that Morocco has many strategies for water, energy, food and ecosystems and that opportunities existed for improved integration among these domains. Furthermore, Morocco's National Sustainable Development Strategy recognizes each of these domains as priority area, and the activities of Child Project 2.2 could

assist the country in meeting the relevant commitments under this strategy. The representative of Morocco informed the participants that the relevant institutions would be consulted about the country's potential participation in national level activities for this Child Project.

Day 2 Agenda Item 4: Child Project 3.1 "Management Support and Expansion of Marine Protected Areas in Libya"

66. Child Project 3.1 will be executed jointly by UN Environment/MAP, SPA/RAC, IUCN, and WWF-Med, and will achieve the following outcome:
    - Expansion of seascapes under protection in Libya, and improved protected area management through the implementation of the Libyan Marine Protected Areas (MPAs) National Strategy, mapping of marine key habitats, monitoring of marine megafauna (mammals, seabirds, turtles and cartilaginous fish), capacity support mechanisms and adoption of permanent solutions.

67. Following a presentation of the activities of Child Project 3.1, the representative of SPA/RAC explained that development of the project document would soon begin in earnest, with the recruitment of a national expert and the organization of an inception meeting with the relevant stakeholders in Libya. UN Environment/MAP explained that the development of this Child Project had been placed on hold for a specific reason, namely to conduct discussions with other donors about the possibility of expanding activities to countries other than Libya. Finally, however, it was decided in February 2018 to proceed with the development of the project for Libya as originally planned. UN Environment/MAP indicated that the development of the project document would proceed swiftly, in view of the fact that the project involves only one country, and that executing partners have already gathered substantial information for the baseline situation.
68. In terms of the identification of the 24 sites of conservation interest that will comprise the Libyan network of MPAs to be established under Child Project 3.1, the representative of SPA/RAC indicated that the executing partners have made a preliminary assessment based on existing data from SPA/RAC and WWF in Libya as well as through desk studies. The next step will be to conduct a rapid assessment of Libya's coast to identify additional candidate areas and to agree upon a final list of sites to be included in the national network of MPAs.

69. The representative of Egypt cited the country's extensive experience in the management of MPAs and invited the executing partners to consider the organization of capacity building workshops for Libyan experts at MPAs in Egypt. The representative of SPA/RAC thanked the representative of Egypt for this suggestion and explained that capacity building within Child Project 3.1 would focus on the 'train the trainer' approach and would provide opportunities for trainees to apply MPA management strategies in small-scale projects conducted outside of the scope of the MedProgramme. The representative of SPA/RAC observed that the design of training activities – including the possibility of travel – was subject to the available budget.

70. In view of potential synergies between Child Project 3.1 and Child Project 2.1, the representative of UNESCO-IHP recalled to the participants that UNESCO will undertake activities related to submarine groundwater discharge with Libya, in the form of regional trainings and capacity building in collaboration with the General Water Authority.

Day 2 Agenda Item 5: Child Project 4.1 "Mediterranean Sea Basin Environment and Climate Regional Support Project"

71. Child Project 4.1 will be executed by UN Environment/MAP, and will achieve the following outcomes:
    - Increased uptake of lessons and of cutting-edge knowledge generated across the portfolio of interventions, and the active participation in IW LEARN activities, Communities of Practice, and events; improve the capacity of key regional stakeholders and of the global IW community to build climate resilience, maintain coastal resources, protect biodiversity and restore coastal ecosystems.
    - The effective coordination and learning among all Child Projects, consistency with the Programme objectives, and synergies among projects and partners, ensured.

72. The Secretariat informed the participants that a key element of Child Project 4.1 is the Knowledge Management Strategy and associated tools that will facilitate information sharing and promotion of the Programme's results among the partners, the region's stakeholders and beyond. He added that a Knowledge Management Specialist would be recruited in April 2018 to provide guidance on this aspect of the Child Project, including on the requirements for the creation of an appropriate knowledge platform and for populating this platform with appropriate data from the countries and partners. A successful example of an effective knowledge platform was cited: the case of the platform for the GEF's Caribbean Regional Fund for Wastewater Management (GEF-CREW) (http://www.gefcrew.org/).

73. With respect to the Knowledge Management Strategy and the related platform, the UN Environment GEF Task Manager for CW requested that the Knowledge Management Specialist reflect all indicators of all child projects in the establishment of the relevant tools and frameworks. It was furthermore explained that the GEF's Chemical and Waste Focal Area has created a proof-of-concept platform to assist countries in meeting the reporting requirements of the Stockholm and Basel Conventions (https://m.youtube.com/watch?v=BMyc6aIVeh0).

74. The representative of Egypt asked that special attention be given to designing data collection and management tools that support policy development, while at the same time responding to the needs of the GEF Secretariat and the Programme partners. The Secretariat confirmed that one of the aims of the Child Project 4.1 was to strengthen the science-policy interface, and that a great deal of relevant data has already been generated by the countries. Furthermore, the knowledge platform proposed under Child Project 4.1 could be used to aggregate and promote these data, with the clear understanding that no data would be disseminated without the permission of its owner. The Secretariat noted that this knowledge platform could one day become a tool of the Contracting Parties of the Barcelona Convention.

75. The representative of Albania noted that many countries lacked data and asked whether the Programme would support generation of data for the Integrated Monitoring and Assessment Programme (IMAP). The Secretariat confirmed that certain data generated from the MedProgramme could indeed assist countries in meeting the IMAP reporting requirements.

76. In response to the representative of Albania's suggestion to employ social media tools to promote the Programme, the Secretariat confirmed that the use of modern communication tools – including social media, YouTube and thematic videos – would be fully integrated in the Programme's communication and outreach strategy.

Day 2 Agenda Item 6: GEF Special Climate Change Fund (SCCF) Project

77. The SCCF Project will be executed by UN Environment/MAP and GWP-Med and will achieve the following outcomes:

- Stakeholder engagement on climate change adaptation is strengthened and partnerships are enhanced.
- Adaptation mainstreamed into IZCM strategies and coastal plans.
- Public spending relative to climate change adaptation in the coastal zone prioritized and national resources mobilized.
- Facilitated access to international climate change adaptation financing.
- Strengthened science-policy interface, accessibility of related knowledge and enhanced regional climate information.

78. The Secretariat recalled that the SCCF Project is a medium-sized project that will mainstream climate change adaptation into coastal planning using a proven approach that was successfully implemented in a past GEF intervention in the region. New funding opportunities under the GEF-7 Replenishment may provide opportunities for replication of this approach in the region.

79. Regarding the geographic scope of the national level activities foreseen in Morocco for the SCCF Project, the representative of Morocco reiterated her wish to maintain the same scope as Child Project 2.1, namely the Tanger-Tétouan-Al Hoceima region. The representative of Morocco recalled that it would be most efficient to work in this manner, as the same stakeholders would be engaged for both projects. The representative of PAP/RAC (the executing agency that will lead the ICZM activities in Child Project 2.1 and the integration of climate change adaptation in coastal plans for the SCCF Project) concurred that it would be best to work at the regional level.

80. During the discussion of execution modalities for activities foreseen at the national level in the SCCF Project, the representatives of Montenegro and Morocco reiterated their wishes to have PAP/RAC and Plan Bleu execute the planned activities in their respective countries on the preparation of recommendations for integrating climate change adaptation in local coastal planning processes.

81. The representative of Egypt recalled that his country was among the countries most vulnerable to climate change and inquired about why the country was not participating in the SCCF Project. The Secretariat recalled that Egypt had been invited to contribute to and endorse the Project Identification Form (PIF) of the GEF SCCF Project but that unfortunately this did not occur. The Secretariat recalled that an official letter was transmitted to the GEF Operational Focal Points of all GEF eligible countries on 9 September 2016 to inform about the opportunity to participate in the SCCF Project and to request inputs and advice from the countries on the development of the PIF. This communication was followed by a second letter on 30 September 2016 to formally request the endorsement of the PIF by the countries prior to the submission to the GEF Secretariat. Six countries issued letters of endorsement for the SCCF Project, namely Albania, Algeria, Libya, Montenegro, Morocco and Tunisia.

82. The representative of PAP/RAC recalled that a large project entitled “Enhancing climate change adaptation in the North coast and Nile Delta Regions in Egypt” had recently been approved by the Green Climate Fund for execution by UNDP Egypt and the Ministry of Water Resources and Irrigation. The PAP/RAC National Focal Point for Egypt has already undertaken a consultation with the Ministry of Water Resources and Irrigation and with UNDP Egypt and they agreed to build synergies with the GEF MedProgramme CP 2.1.

Day 2 Agenda Item 7: Discussion on timeline for completion of the development phase

83. Following discussions, the GEF Operational Focal Points, the nominated representatives and the implementing and executing partners agreed on the tentative timelines proposed for the completion of the project documents and their submission to the GEF Secretariat for endorsement, as set forth in Table 4 of the present report.

Day 2 Agenda Item 8: Conclusions of the first regional consultation

84. In the closing of the consultation, the GEF Operational Focal Points, the nominated representatives and the implementing and executing partners agreed on a set of conclusions and next steps, which have been reformulated for clarity and are set forth on pages 2 and 3 of the present report.

Annex 1
Agenda of the First Regional Consultation of the MedProgramme

Day 1: 7 March 2018	
9:00 – 9:30	*Registration*
9:30 – 9:45	Welcoming remarks: UN Environment
9:45 – 10:30	1. Setting the scene and objectives of the consultation: UN Environment/MAP
10:30 – 11:00	2. Report on progress for preparation of the MedProgramme documents: UN Environment/MAP
11:00 – 11:30	*Coffee Break*
11:30 – 12:00	3. Next steps and timeline for submission of documents to the GEF Secretariat: UN Environment/MAP
12:00 – 13:00	4. Update on Child Project 1.1: Project partners (MED POL, SCP/RAC, Plan Bleu)
13:00 – 14:30	*Lunch*
14:30 – 15:30	5. Update on Child Project 1.2: Project partners (EIB and MED POL)
15:30 – 15:45	*Coffee Break*
15:45 – 16:45	6. Update on Child Project 1.3: Project partner (EBRD)
16:45 – 17:00	7. Conclusions of Day 1
17:00	*End of Day 1*

Day 2: 8 March 2018	
9:30 – 9:45	1. Opening remarks: UN Environment/MAP
9:45 – 10:45	2. Update on Child Project 2.1: Project partners (PAP/RAC, UNESCO-IHP, GWP-Med and Plan Bleu)
10:45 – 11:15	*Coffee Break*
11:15 – 12:15	3. Update on Child Project 2.2: Project partner (GWP-Med)
12:15 – 13:45	*Lunch*
13:45 – 14:45	4. Update on Child Project 3.1: Project partners (SPA/RAC, WWF and IUCN)
14:45 – 15:15	5. Update on Child Project 4.1: UN Environment/MAP
15:15 – 15:45	6. Update on the GEF Special Climate Change Fund Project
15:45 – 16:15	*Coffee Break*
16:15 – 17:15	7. Discussion: Timeline for completion of the development phase
17:15 – 17:30	8. Conclusions of the first regional consultation
17:30	*Closing of the consultation*

Annex 2
List of participants

COUNTRY REPRESENTATIVES

Ms. Ornela Çuçi
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Annex 3
List of consultations organized to date in the context of the MedProgramme

Project/programme	Type of consultation/activity	Location	Dates
Child Project 1.1	Regional Workshop on "Improved and Harmonized POPs Inventories and Action Plan" organized by the Stockholm Convention Regional Centre for North Africa	Rabat, Morocco	30 October to 3 November 2017
Child Project 1.1	Technical mission to Lebanon to identify potential interventions and sites for PCBs disposal/remediation	Beirut, Tripoli, Lebanon	17 – 21 December 2017
Child Project 1.1	Technical mission to Tunisia to identify potential interventions and sites for PCBs and mercury disposal/remediation	Tunis, Tunisia	31 January – 2 February 2018
Child Project 1.1	Technical mission to Algeria to identify potential interventions and sites for PCBs and mercury disposal/remediation	Algiers, Tizi Ouzu, Algeria	12 – 15 February 2018
Child Project 1.2	Meeting mission with promotor and GEF focal point in relation to upgrading and extension of 10 WWTP	Tunis, Tunisia	23-24 March 2017
Child Project 1.2	Technical mission to meet the promotor and GEF focal point in relation to COELMA project	Tetouan, Morocco	24-26 July 2017
Child Project 1.2	Meeting with promoter, GEF focal point and project consultants to kick off technical assistance for project preparation	Rabat, Morocco	5 February 2018
Child Project 1.2	Meeting with promoter, GEF focal point and stakeholders to present COELMA project	Tétouan, Morocco	6 February 2018
Child Project 1.2	Stakeholder consultation and pre-appraisal of the project by EIB	Tripoli, Lebanon	On going
Child Project 1.2	Feasibility studies are on-going for the three projects. A baseline data have been collected and available information on the institutional/policy framework has been prepared for Alexandria West WWTP.	Egypt	On going
Child Project 2.1	Sub-regional consultation with the Adriatic countries	Tivat, Montenegro	26 September 2017
Child Project 2.1	Sub-regional consultation with the Southern Mediterranean countries	Rabat, Morocco	12 – 13 December 2017
SCCF Project	First Regional Consultation	Rabat, Morocco	13 – 14 December 2017
SCCF Project	National consultation with Morocco	Rabat, Morocco	8 – 9 February 2018

Annex 3
List of consultations organized to date in the context of the MedProgramme

Project/programme	Type of consultation/activity	Location	Dates
SCCF Project	National consultation with Montenegro	Podgorica, Montenegro	12 – 13 February 2018
MedProgramme	First Regional Consultation	Athens, Greece	7 – 8 March 2018

Annex 4
Overview of the national and regional interventions planned for all countries in the MedProgramme

(ATTACHED)

Annex 5
Matrix of responsibilities of the executing partners for the MedProgramme

MedProgramme – Overview of responsibilities for execution
Partner countries: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, State of Libya, Montenegro, Morocco, and Tunisia

Lead GEF Agency: UN Environment
Other GEF Agency: EBRD
Executing Partners: UN Environment/MAP, EIB, UNESCO-IHP, GWP-Med, WWFMedPO, IUCN

Component 1: Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

Type of activity	Plan Bleu	SCP/RAC	MED POL	UN Environment MAP
Disposal		✓	✓	
Remediation			✓	
Prevention		✓		
Other		✓	✓	
Measuring progress to impacts	✓		✓	
Programme-wide communication and knowledge management				✓

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

Type of activity	EIB	MED POL	UN Environment MAP
WWTP extension and upgrade (incl. reuse)	✓		
Depollution of catchment areas	✓		
Reduction and control of industrial pollution	✓		
Reduction of mercury releases	✓		
Other activities	✓		
Environmental standards		✓	
Programme-wide communication and knowledge management			✓

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Type of activity	EBRD	UN Environment MAP
Water management systems upgrades	✓	
Reduction and prevention of POPs	✓	
Other activities	✓	
Dissemination/ replication	✓	
Programme-wide communication and knowledge management		✓

Annex 5
Matrix of responsibilities of the executing partners for the MedProgramme

Component 2: Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

Type of activity	GWP-Med	Plan Bleu	PAP/RAC	UNESCO IHP	UN Environment MAP
Coastal zone management	✓	✓	✓		
Management of Coastal Aquifers and Related Ecosystems				✓	
Programme-wide communication and knowledge management					✓

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

Type of activity	GWP-Med	UN Environment MAP
Nexus assessments, related capacity building and institutional support	✓	
Identification of bankable nexus interventions	✓	
Communication and outreach	✓	✓
Programme-wide communication and knowledge management		✓

Component 3: Protecting Marine Biodiversity

Child Project 3.1 "Management Support and Expansion of Marine Protected Areas in Libya"

Type of activity	IUCN	SPA/RAC	WWF MedPO	UN Environment MAP
Inventory of marine and coastal sites of conservation interest in Libya	✓	✓		
Strengthening the governance of marine protected areas		✓		
Reduction and control of industrial pollution				
Effective management of MPAs	✓	✓	✓	
Civil society engagement	✓	✓	✓	
Capacity building	✓	✓	✓	
Awareness raising and communication	✓	✓	✓	✓
Programme-wide communication and knowledge management				✓

Annex 5
Matrix of responsibilities of the executing partners for the MedProgramme

Component 4: Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environment and Climate Regional Support Project"

Type of activity	UN Environment MAP	All partners
Knowledge sharing and dissemination of results	✓	✓
Coordination and synergies	✓	

GEF Special Climate Change Fund (SCCF) Project[2]

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

Partner countries: Albania, Algeria, State of Libya, Montenegro, Morocco and Tunisia
GEF Agency: UN Environment
Executing partners : UN Environment/MAP, PAP/RAC, Plan Bleu, GWP-Med

Type of activity	GWP-Med	PAP/RAC	Plan Bleu	UN Environment MAP
Stakeholder engagement, capacity building and cooperation	✓	✓	✓	
Mainstreaming climate change adaptation in coastal planning		✓	✓	
Access to financing mechanisms for climate change adaptation	✓			
Knowledge management, communication and dissemination				✓

[2] The SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas" was approved after the adoption of the MedProgramnme as an external intervention. However, it was agreed with the GEF Secretariat and the participating countries that the project, would be executed as part of the Programme to maximize synergies and efficient use of resources.

ALBANIA - Summary of national and regional activities in the MedProgramme

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	• Potential for PCBs disposal considered (for later phase of project implementation)
Remediation	None
Prevention	None
Other activities	• Support for the PCBs inventory considered (pending confirmation of the need) • Capacity building for ESM of PCBs
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge, for consideration in the Barcelona Convention framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• National assessment to support implementation of the ICZM Protocol • Coast Day central celebration dedicated to coastal aquifers
Management of Coastal Aquifers and Related Ecosystems	• For the Buna - Bojana Transboundary Coastal Aquifer (in cooperation with Montenegro): o In-depth assessment and characterization of the aquifer through the application of a multi-disciplinary indicator-based methodology o Identification and evaluation of coastal aquifer and ecosystems services o Analyses of saline intrusion processes o National Dialogues identifying potential conjunctive management solutions o Preparation of coastal aquifer management plan o Aquifer monitoring multi-purpose networks and protocols designed and field tested, and responsible personnel trained
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Regional Assessment of Submarine Groundwater Discharges o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

ALBANIA - Summary of national and regional activities in the MedProgramme

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

Regional activities	
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

GEF Special Climate Change Fund Project (SCCF Project)

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

Regional activities	
Stakeholder engagement, capacity building and cooperation	• Training on climate change adaptation solutions, including ecosystem-based solutions, for technical experts and decision makers • Sub-regional workshops for international finance institutions, and the banking, insurance and private sectors to enhance the use of coastal climate risk and vulnerability in investment decisions
Access to financing mechanisms for climate change adaptation	• Development of methodological guidelines on preparation of financing plans for climate change adaptation in coastal areas including domestic, international and private sector investments • Countries invited to participate in the development of a full-fledged project proposal to access international financing support for climate change adaptation in coastal zones
Knowledge management, communication and coordination	• Regional meeting to share knowledge and lessons learned, and to discuss opportunities for replication at the national level in additional countries • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

ALGERIA - Summary of national and regional activities in the MedProgramme

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	• PCBs disposal (sites and quantities to be determined) • Disposal of POPs others than PCBs (sites and quantities to be determined)
Remediation	• Small-scale interventions considered for priority sites contaminated with POPs/ PCBs
Prevention	• Options for prevention of new POPs assessed
Other activities	• Support for PCBs dynamic inventory considered (pending confirmation of the need) • Capacity building for ESM of POPs/ PCBs
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge, for consideration in the Barcelona Convention framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

ALGERIA - Summary of national and regional activities in the MedProgramme

National activities	
Coastal Zone Management	• National assessment to support ratification of the ICZM Protocol • Stakeholder consultation to support ratification of the ICZM Protocol • Coast Day central celebration
Management of Coastal Aquifers and Related Ecosystems	None
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	

Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

	Regional activities
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

GEF Special Climate Change Fund Project (SCCF Project)

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

	Regional activities
Stakeholder engagement,	• Training on climate change adaptation solutions, including ecosystem-based solutions, for technical experts and decision makers

capacity building and cooperation	• Sub-regional workshops for international finance institutions, and the banking, insurance and private sectors to enhance the use of coastal climate risk and vulnerability in investment decisions
Access to financing mechanisms for climate change adaptation	• Development of methodological guidelines on preparation of financing plans for climate change adaptation in coastal areas including domestic, international and private sector investments • Countries invited to participate in the development of a full-fledged project proposal to access international financing support for climate change adaptation in coastal zones
Knowledge management, communication and coordination	• Regional meeting to share knowledge and lessons learned, and to discuss opportunities for replication at the national level in additional countries • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	None
Remediation	None
Prevention	None
Other activities	None
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge, for consideration in the Barcelona Convention framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• National assessment to support ratification of the ICZM Protocol • Stakeholder consultation to support ratification of the ICZM Protocol • National consultation to support the launch of an Inter-Ministerial Committee
Management of Coastal Aquifers and Related Ecosystems	None
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

	Regional activities
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	None
Remediation	None
Prevention	• Mercury prevention options considered (pending confirmation of eligibility) • Options for prevention of new POPs considered (pending country's confirmation of interest)
Other activities	• Support for PCBs inventory considered (pending confirmation of the need)
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

National activities	
WWTP extension and upgrade (incl. reuse)	• Extension in the capacity and upgrade treatment level for Alexandria West Wastewater Treatment Plant, including sludge treatment • Assessment of demand and definition of the technical options to achieve the required level of wastewater and sludge treatment in WWTPs to meet the requirements for reuse as well as minimize the operation costs • Rehabilitation and extension of existing WWTPs and rehabilitation of drains' structures – Bahr Al Baqar drain • Rehabilitation and possibly extension of several wastewater treatment plants currently inefficient - Nile catchment area
Depollution of catchment areas	• Definition of technical options for investment in depollution infrastructure (WWTP, solid waste landfills etc.) • Identification of point and diffuse sources of pollution at the catchment level to prioritise the environmental and health risks • Construction of new WWTPs and solid waste landfills – Bahr Al Baqar drain
Reduction and control of industrial pollution	• Assessment of industrial pollution sources discharging in sewer network - Alexandria West Wastewater Treatment Plant, in Bahr Al Baqar drain and in the Nile catchment area

National activities	
Reduction of mercury releases	None
Other activities	• Capacity building
Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge management, for consideration in the Barcelona Convention framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• Preparation of Egypt's National ICZM Strategy, relying on the implementation of *Climagine* participatory approach o Scoping to assess existing state and to agree on key issues and priorities o Establishing governance mechanism for planning o Engaging stakeholders through Climagine o Diagnostic analysis to deeply understand the root causes of the key issues and to build argumentation for policy solutions o Validation and developing indicators with Climagine o Future scenarios and the agreement on the vision o Designing the future strategy o Validating proposed measures and finalizing Climagine and the National ICZM Strategy • National assessment to support ratification of the ICZM Protocol • Stakeholder consultation to support ratification of the ICZM Protocol
Management of Coastal Aquifers and Related Ecosystems	• For the North West Coast Aquifer: o In-depth assessment and characterization of the aquifer through the application of a multi-disciplinary indicator-based methodology o Identification and evaluation of coastal aquifer and ecosystems services

	o Analyses of saline intrusion processes o National Dialogues identifying potential conjunctive management solutions o Preparation of coastal aquifer management plan o Aquifer monitoring multi-purpose networks and protocols designed and field tested, and responsible personnel trained
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Regional Assessment of Submarine Groundwater Discharges (Activities under Output 2.4) o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface and groundwater management (Activity 2.2.3) • Gender training on sex-disaggregated water data collection (Activity 2.2.4)
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas

Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

	Regional activities
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	• PCBs disposal (up to 140 tonnes stocks, 90 tonnes dichlorination and 360 tonnes in use equipment; sites to be specified)
Remediation	• Remediation interventions considered for priority sites (PCBs contamination) – Bauchrieh, Qadisha and on contaminated sites by PFOS-PFAS (survey and sampling)
Prevention	• Options for prevention of mercury assessed (1. "Hospitals Free of Mercury" – Proposed Target: 1 tonne mercury prevented. 2. "Dentists Free of Mercury " – No target yet.) • Options for prevention of new POPs assessed (1. "PFOS-PFAS Free Fire-Fighting" and/or 2. "HBCD Free EPS/XPS" (pending confirmation of Ministry's agreement, eligibility and further assessment)).
Other activities	
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

National activities	
WWTP extension and upgrade (incl. reuse)	None
Depollution of catchment areas	• Technical assistance for wastewater system operation • Definition of water resources management options with all stakeholders at the watershed level to guarantee sustainable use of resources
Reduction and control of industrial pollution	• Assessment of industrial pollution sources, data-base and GIS
Reduction of mercury releases	None
Other activities	• Improve environmental control & monitoring capacity by setting up a monitoring unit
Regional activities	

Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge management, for consideration in the BC framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• Preparation of Lebanon's National ICZM Strategy, relying on the implementation of *Climagine* participatory approach o Scoping to assess existing state and to agree on key issues and priorities o Establishing governance mechanism for planning o Engaging stakeholders through Climagine o Diagnostic analysis to deeply understand the root causes of the key issues and to build argumentation for policy solutions o Validation and developing indicators with Climagine o Future scenarios and the agreement on the vision o Designing the future strategy o Validating proposed measures and finalizing Climagine and the National ICZM Strategy • Preparation of the Integrated Resources Management Plan for the Damour Region, applying the Integrative Methodological Framework developed under the MedPartnership, and the Climagine participatory approach o Scoping report to describe the generally understood conditions of the plan area and to agree on priorities o Establishing governance mechanism for planning o Engaging stakeholders through Climagine o Diagnostic analysis to deeply understand the root causes of the key issues and to build argumentation for policy solutions o Validation and developing indicators with Climagine o Future scenarios and the agreement on the vision o Designing the future plan

	○ Validating proposed measures and finalizing Climagine and the IRM Plan • National assessment to support implementation of the ICZM Protocol • Stakeholder consultation to support implementation of the ICZM Protocol • National consultation to support the launch of an Inter-Ministerial Committee
Management of Coastal Aquifers and Related Ecosystems	• For the Damour Coastal Aquifer: ○ In-depth assessment and characterization of the aquifer through the application of a multi-disciplinary indicator-based methodology ○ Identification and evaluation of coastal aquifer and ecosystems services ○ Analyses of saline intrusion processes ○ National Dialogues identifying potential conjunctive management solutions ○ Preparation of coastal aquifer management plan ○ Aquifer monitoring multi-purpose networks and protocols designed and field tested, and responsible personnel trained
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: ○ Regional Assessment of Submarine Groundwater Discharges (Activities under Output 2.4) ○ Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

Regional activities	
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice

Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

LIBYA - Summary of national and regional activities in the MedProgramme

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• National assessment to support ratification of the ICZM Protocol
Management of Coastal Aquifers and Related Ecosystems	None
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 3. Protecting Marine Biodiversity

Child Project 3.1 "Management Support and Expansion of Marine Protected Areas in Libya"

National activities
Inventory of marine and coastal sites of conservation interest in Libya • At least one field survey conducted to identify and characterize marine and coastal sites of conservation interest in Libya, and submitted for approval • Marine megafauna monitoring performed in at least two sites
Strengthening the governance of marine protected areas • Libya's Strategy on Marine Protected Areas (MPAs) is developed and submitted for approval • A draft law on MPAs is development and submitted for approval • A governance structure for MPAs in Libya is designed and made operational in at least one MPA

Effective management of MPAs • MPA management unit established in at least one on-site • MPA management plan elaborated for at least one site
Civil society engagement • One CSO participatory platform established to encourage CSO participation in the management of MPAs • At least five CSOs involved in MPA establishment and management participatory processes
Capacity building • At least four training events on MPA governance, sustainable management,stakeholder engagement and Marine megafauna monitoring organized for conservation groups, representatives of fisheries and tourism, and government stakeholders
Awareness raising and communication • At least four awareness raising campaigns designed and launched, targeting the general public, fisheries, tourism, coastal management and/or urban planners • Engagement in the MedProgramme Knowledge Strategy, including sharing of lessons learned, providing data to feed the Knowledge Management platform • Participation in IW LEARN events, communities of practice, etc.
Knowledge sharing and dissemination of results • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW communities of practice

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

Regional activities	
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

GEF Special Climate Change Fund Project (SCCF Project)

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

Regional activities	
Stakeholder engagement, capacity building and cooperation	• Training on climate change adaptation solutions, including ecosystem-based solutions, for technical experts and decision makers • Sub-regional workshops for international finance institutions, and the banking, insurance and private sectors to enhance the use of coastal climate risk and vulnerability in investment decisions
Access to financing mechanisms for climate change adaptation	• Development of methodological guidelines on preparation of financing plans for climate change adaptation in coastal areas including domestic, international and private sector investments • Countries invited to participate in the development of a full-fledged project proposal to access international financing support for climate change adaptation in coastal zones
Knowledge management, communication and coordination	• Regional meeting to share knowledge and lessons learned, and to discuss opportunities for replication at the national level in additional countries • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	• Potential for PCBs disposal considered (coordination with GEF/ UNDP) • Assessment study for Bijela Shipyard
Remediation	None
Prevention	None
Other activities	None
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge, for consideration in the Barcelona Convention framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

MONTENEGRO - Summary of national and regional activities in the MedProgramme

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	None (synergy with SCCF Project, where climate change adaptation will be mainstreamed into local coastal planning processes for the Kotor Bay area)
Management of Coastal Aquifers and Related Ecosystems	• For the Buna - Bojana Transboundary Coastal Aquifer (in cooperation with Albania): o In-depth assessment and characterization of the aquifer through the application of a multi-disciplinary indicator-based methodology (Activity 2.1.1) o Identification and evaluation of coastal aquifer and ecosystems services (Activity 2.1.2) o Analyses of saline intrusion processes (Activity 2.1.3) o National Dialogues identifying potential conjunctive management solutions (Activities under Output 2.4) o Preparation of coastal aquifer management plan (Activities under Output 2.5) o Aquifer monitoring multi-purpose networks and protocols designed and field tested, and responsible personnel trained (Activities under Output 2.6)
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Regional Assessment of Submarine Groundwater Discharges o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

Regional activities	
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

GEF Special Climate Change Fund Project (SCCF Project)

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

National activities	
Stakeholder engagement, capacity building and cooperation	In the Kotor Bay area: • A gender-sensitive climate risk assessment undertaken through a stakeholder-led process to provide sufficient basis for building coastal resilience to climate change and sustainability • Solutions identified for building coastal resilience and sustainability though stakeholder involvement, using the participatory approach methodology Climagine
Mainstreaming climate change adaptation in coastal planning	• Preparation of guidelines on mainstreaming climate change adaptation in the appropriate local coastal planning processes in the Kotor Bay area (synergy with CP 2.1 of the MedProgramme) • Evaluation of the legal, policy and institutional barriers for implementing solutions to mitigate climate risks
Regional activities	
Stakeholder engagement, capacity building and cooperation	• Training on climate change adaptation solutions, including ecosystem-based solutions, for technical experts and decision makers • Sub-regional workshops for international finance institutions, and the banking, insurance and private sectors to enhance the use of coastal climate risk and vulnerability in investment decisions
Access to financing mechanisms for	• Development of methodological guidelines on preparation of financing plans for climate change adaptation in coastal areas including domestic, international and private sector investments

climate change adaptation	• Countries invited to participate in the development of a full-fledged project proposal to access international financing support for climate change adaptation in coastal zones
Knowledge management, communication and coordination	• Regional meeting to share knowledge and lessons learned, and to discuss opportunities for replication at the national level in additional countries • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	• Mercury disposal options considered – COELMA, Tétouan (in coordination with EIB/ Child 1.2)
Remediation	None
Prevention	• Options for prevention of mercury assessed (1. "Hospitals Free of Mercury" – Possible target: 1 tonne mercury prevented. 2. "Dentists Free of Mercury" – No target yet (pending confirmation of Ministry's agreement on pilot). • Options for prevention of new POPs assessed (1. "PFOS-PFAS Free Fire-Fighting". 2. "HBCD Free EPS/XPS" and/or 3. "SCCP Free PVC" or "SCCP Free Lubricants" (pending confirmation of Ministry's agreement, eligibility and further assessment.
Other activities	None
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

National activities	
WWTP extension and upgrade (incl. reuse)	None
Depollution of catchment areas	• Decommissioning of COELMA chlor-alkali plant in Tétouan, removal of mercury stocks (in conjunction with Child 1.1), soil and sediment decontamination in valley where applicable
Reduction and control of industrial pollution	None
Reduction of mercury releases	• Decommissioning of COELMA chlor-alkali plant and potential process conversion to membrane process
Other activities	• Capacity building

Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge management, for consideration in the BC framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• Preparation of the ICZM Plan for the Tanger-Tétouan-Al Hociema Region, relying on the implementation of *Climagine* participatory approach (synergy with SCCF Project, where climate change adaptation will be mainstreamed into this plan) o Scoping report to describe the generally understood conditions of the plan area and to agree on priorities o Establishing governance mechanism for planning o Engaging stakeholders through Climagine o Diagnostic analysis to deeply understand the root causes of the key issues and to build argumentation for policy solutions o Validation and developing indicators with Climagine o Future scenarios and the agreement on the vision o Designing the future plan o Validating proposed measures and finalizing Climagine and the ICZM Plan • National assessment to support implementation of the ICZM Protocol • Stakeholder consultation to support implementation of the ICZM Protocol • Coast Day central celebration dedicated to coastal resilience
Management of Coastal Aquifers and Related Ecosystems	• For the Rhiss Nekkor Coastal Aquifer: o In-depth assessment and characterization of the aquifer through the application of a multi-disciplinary indicator-based methodology o Identification and evaluation of coastal aquifer and ecosystems services o Analyses of saline intrusion processes

	○ National Dialogues identifying potential conjunctive management solutions ○ Preparation of coastal aquifer management plan ○ Aquifer monitoring multi-purpose networks and protocols designed and field tested, and responsible personnel trained
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: ○ Regional Assessment of Submarine Groundwater Discharges ○ Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	

Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions
Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

Regional activities	
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

GEF Special Climate Change Fund Project (SCCF Project)

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

National activities	
Stakeholder engagement, capacity building and cooperation	In the Tanger-Tétouan-Al Hociema region: • A gender-sensitive climate risk assessment undertaken through a stakeholder-led process to provide sufficient basis for building coastal resilience to climate change and sustainability • Solutions identified for building coastal resilience and sustainability though stakeholder involvement, using the participatory approach methodology Climagine
Mainstreaming climate change adaptation in coastal planning	• Preparation of guidelines on mainstreaming climate change adaptation in the coastal plan for the Tanger-Tétouan-Al Hociema region (synergy with CP 2.1 of the MedProgramme) • Evaluation of the legal, policy and institutional barriers for implementing solutions to mitigate climate risks
Regional activities	
Stakeholder engagement, capacity building and cooperation	• Training on climate change adaptation solutions, including ecosystem-based solutions, for technical experts and decision makers • Sub-regional workshops for international finance institutions, and the banking, insurance and private sectors to enhance the use of coastal climate risk and vulnerability in investment decisions
Access to financing mechanisms for climate change adaptation	• Development of methodological guidelines on preparation of financing plans for climate change adaptation in coastal areas including domestic, international and private sector investments • Countries invited to participate in the development of a full-fledged project proposal to access international financing support for climate change adaptation in coastal zones
Knowledge management, communication and coordination	• Regional meeting to share knowledge and lessons learned, and to discuss opportunities for replication at the national level in additional countries • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Component 1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and Measuring Progress to Impacts

Child Project 1.1 "Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hotspots and Measuring Progress to Impacts"

National activities	
Disposal	• PCBs disposal (sites and quantities to be determined) • Disposal of POPs others than PCBs (sites and quantities to be determined) • Mercury disposal options assessed – SNCPA, Kasserine (in coordination with EIB/ Child 1.2)
Remediation	• Small-scale interventions considered for priority sites contaminated with POPs/ PCBs
Prevention	• Mercury prevention options assessed (1. "Hospital Free of Mercury" – Possible target: 1 tonne mercury prevented. 2. "Dentists Free of Mercury" – no target yet (pending confirmation of Ministry's agreement on pilot). • Options for prevention of new POPs assessed (1. "PFOS-PFAS Free Fire-Fighting". 2. "HBCB Free EPS/XPS" and/or 3. "SCCP Free Lubricants" (pending confirmation of Ministry's agreement, eligibility and further assessment).
Other activities	None
Regional activities	
Measuring progress to impacts	• TDA update • Improved integration and sharing of the existing research and monitoring data
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.2 "Mediterranean Pollution Hotspots Investment Project"

National activities	
WWTP extension and upgrade (incl. reuse)	• Extension and upgrade of 10 wastewater treatment plants (WWTP) in different cities nationwide including feasibility studies •
Depollution of catchment areas	• Site mercury depollution – SNCPA Kasserine • Preparation of wastewater management masterplans in regions concerned by the 10 WWTP
Reduction and control of industrial pollution	None
Reduction of mercury releases	• Mercury disposal options assessed – SNCPA, Kasserine (in coordination with EIB/ Child 1.1) • Site mercury depollution – SNCPA Kasserine

National activities	
Other activities	None
Regional activities	
Environmental standards	• Development of regional standards on desalination, aquaculture and wastewater and sludge management, for consideration in the BC framework
Knowledge sharing and dissemination of results	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events, IW and CW communities of practice

Child Project 1.3 "Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)"

Due to the dynamic nature of the potential project pipeline for this Child Project, it is not possible at this stage to identify specific sites for EBRD's interventions. Activities will be agreed upon with the countries in due course, based on EBRD's investment criteria and the expected results set forth in the Programme Framework Document for the MedProgramme.

Component 2. Enhancing Sustainability and Climate Resilience in the Coastal Zone

Child Project 2.1 "Mediterranean Coastal Zones Climate Resilience, Water Security and Habitat Protection"

National activities	
Coastal Zone Management	• National assessment to support ratification of the ICZM Protocol • Stakeholder consultation to support ratification of the ICZM Protocol • National consultation to support the launch of an Inter-Ministerial Committee
Management of Coastal Aquifers and Related Ecosystems	• For the Ras Jebel Coastal Aquifer: o In-depth assessment and characterization of the aquifer through the application of a multi-disciplinary indicator-based methodology o Identification and evaluation of coastal aquifer and ecosystems services o Analyses of saline intrusion processes o National Dialogues identifying potential conjunctive management solutions o Preparation of coastal aquifer management plan o Aquifer monitoring multi-purpose networks and protocols designed and field tested, and responsible personnel trained
Regional activities	
Coastal Zone Management	• Participation in the sub-regional training in support of ICZM Protocol implementation • Identification of national capacities, strengths and gaps regarding coastal observation, to feed into a conceptual framework and structure for a coastal observation system to support the implementation of

	ICZM processes at national and local levels and to monitor progress towards achievement of good environmental status of the coast • Access to and support for the MedOpen online training modules on ICZM, adaptation to climate change, building coastal resilience, marine spatial planning, and land use change analysis • Participation in annual Coast Day events
Management of Coastal Aquifers and Related Ecosystems	• Groundwater submarine discharge-related activities: o Regional Assessment of Submarine Groundwater Discharges o Two regional workshops for training and capacity-building on submarine groundwater discharge (English and French speaking countries) • Joint regional training modules on conjunctive surface water and groundwater management • Gender training on sex-disaggregated water data collection
Programme-wide communication and knowledge management	• Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

Child Project 2.2 "Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem Nexus"

National activities	(specific countries to be identified during the 2018 consultations)
Nexus assessments, related capacity building and institutional support	In three priority coastal areas: • Nexus assessments conducted • Nexus strategies or action plans developed in collaboration with relevant stakeholders, with gender mainstreamed throughout • Establishment of nexus committees (building on new or existing interministerial or cross-sectoral committees) • Training events on the nexus approach delivered to national and local administrations and other key stakeholders • Nexus demonstration activities designed and implemented to reduce tension among the competing water uses identified in the nexus assessment
Communication and outreach	• Engagement in the national Information Communication and Outreach Strategy in the three priority coastal areas
Regional activities	
Nexus assessments, related capacity building and institutional support	• Three nexus regional dialogue meetings and one partnership conference organized to build countries' capacity on the nexus approach and foster relationships with potential financiers
Identification of bankable nexus interventions	• Three project fiches prepared for priority nexus interventions and/or investments in collaboration with interested countries and submitted for consideration to governments and international financing institutions

Programme-wide communication and knowledge management	• Engagement in the Regional Information Communication and Outreach Strategy for CP 2.2 • Engagement in the MedProgramme Knowledge Management Strategy and replication activities • Participation in IW LEARN events, communities of practice, etc.

Component 4. Knowledge Management and Programme Coordination

Child Project 4.1 "Mediterranean Sea Basin Environmental and Climate Regional Support Project"

Regional activities	
Knowledge sharing and dissemination of results	• Cooperation in the identification and sharing of lessons learned and successful policies and practices (in support of the preparation of GEF Experience Notes, scientific publications, …) • Contribution of thematic content for communications on MedProgramme results, designed for modern dissemination tools (programme website, videos, social media campaigns, international media coverage, YouTube, etc.) • Regular use of the MedProgramme Bulletin (published every six months) to remain informed of the results of all Child Projects • Contribution to IW LEARN website and events, as well as global IW and CW communities of practice
Coordination and synergies	• Participation in yearly stocktaking meetings with all Child Projects and countries, implementing and execution agencies, GEF, and other regional stakeholders, in view of generating synergies among the Child Projects

GEF Special Climate Change Fund Project (SCCF Project)

SCCF Project "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas"

Regional activities	
Stakeholder engagement, capacity building and cooperation	• Training on climate change adaptation solutions, including ecosystem-based solutions, for technical experts and decision makers • Sub-regional workshops for international finance institutions, and the banking, insurance and private sectors to enhance the use of coastal climate risk and vulnerability in investment decisions
Access to financing mechanisms for climate change adaptation	• Development of methodological guidelines on preparation of financing plans for climate change adaptation in coastal areas including domestic, international and private sector investments • Countries invited to participate in the development of a full-fledged project proposal to access international financing support for climate change adaptation in coastal zones
Knowledge management, communication and coordination	• Regional meeting to share knowledge and lessons learned, and to discuss opportunities for replication at the national level in additional countries • Sharing of best practices as contribution to MedProgramme-wide Knowledge Management Strategy • Contribution of data and active use of the MedProgramme Knowledge Management Platform • Participation in IW LEARN events

The Mediterranean Sea Programme (MedProgramme):
Enhancing Environmental Security

Report of the Second Regional Consultation

Paris, France
20 and 21 September 2018

Photo credit : Chloé Meyer (UNESCO IHP) and Lucilla Minelli (UN Environment/MAP)

Final version 25 October 2018

MedProgramme
Report of the Second Regional Consultation
(Paris, France – 20 and 21 September 2018)

Conclusions

1. The GEF Operational Focal Points (or their representatives) of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro and Tunisia confirmed the importance of the MedProgramme for their countries and for the region, and endorsed the proposals of UN Environment/MAP on (i) the timeline for finalization of the Child Projects of the MedProgramme and their submission to the GEF Secretariat for endorsement; (ii) the development of the overarching strategies for Knowledge Management and Gender Mainstreaming; and (iii) the arrangements for execution of the MedProgramme through the MedProgramme Coordinating Unit (MedPCU).

2. Following final comments from the GEF Operational Focal Points and the UN Environment Project Review Committee (PRC), Child Project 2.1 and the SCCF Project will be submitted to the GEF for endorsement in October 2018.

3. Child Projects 1.1, 1.2, 1.3, 2.2, 3.1 and 4.1 will be submitted to the GEF for endorsement between October and December 2018.

Next steps

	Action item	Responsibility	Deadline
1.	Circulate links to project documents and substantive annexes for Child Project 2.1 and the SCCF Project via DropBox	UN Environment/MAP	21/09/2018
2.	Circulate link to presentations via DropBox	UN Environment/MAP	21/09/2018
3.	Provide deadlines for comments on Child Project 2.1 and the SCCF Project	UN Environment/MAP	24/09/2018
4.	Initiate discussions with the GEF Operational Focal Points on co-financing for Child Projects 1.1, 2.2 and 3.1	UN Environment/MAP	24/09/2018
5.	Prepare and circulate draft report of the 2nd Regional Consultation	UN Environment/MAP	28/09/2018
6.	Provide the list of national focal points for the UN Environment/MAP Regional Activity Centres to GEF Operational Focal Points	UN Environment/MAP	28/09/2018
7.	Provide Knowledge Management and Gender Mainstreaming Strategies to GEF Operational Focal Points and all partners for comments	UN Environment/MAP	08/10/2018
8.	Provide advanced draft of Child Project 4.1 to GEF Operational Focal Points and all partners for comments	UN Environment/MAP	15/10/2018
9.	Submit co-financing letters for Child Projects 1.1, 2.2 and 3.1	GEF Operational Focal Points	31/10/2018

Background information

1. The Second Regional Consultation was organized by the Coordinating Unit of the UN Environment Mediterranean Action Plan (UN Environment/MAP) and the implementing and executing agencies of the MedProgramme to update the GEF Operational Focal Points about progress on the preparation of the Child Projects, to present the main features of the MedProgramme's overarching strategies for Knowledge Management and Gender Mainstreaming, and to agree on the next steps for the finalization of all project documents prior to their submission to the GEF for endorsement. The agenda of the Second Regional Consultation is provided in Annex 1.

2. The objective of the MedProgramme is to accelerate the implementation of agreed upon priority actions to reduce the major transboundary environmental stresses affecting the Mediterranean Sea and its coastal areas while strengthening climate resilience and water security, and improving the health and livelihoods of coastal populations. The MedProgramme was endorsed by the GEF Council in October 2016 with seven Child Projects contributing to the GEF's focal areas of International Waters (IW), Chemicals and Waste (CW), and Biodiversity (BD) (Table 1). An additional project financed by the GEF's Special Climate Change Fund (SCCF) was subsequently developed and is now also considered one of the Child Projects of the MedProgramme, in support of the GEF focal area on Climate Change (CC). Hence, there is a total of eight Child Projects in the MedProgramme.

3. Nine countries have endorsed the MedProgramme: Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco, and Tunisia. It will be executed over a period of five years starting in 2019.

Table 1 Overview of the MedProgramme components, Child Projects, Executing Agencies and GEF Focal Areas

Mediterranean Sea Programme (MedProgramme)			
MedProgramme Component	**Child Project**	**Indicative lists of executing Agencies**	**GEF Focal Areas**
1. Reduction of Land Based Pollution In Priority Coastal Hotspots, and measuring progress to impacts	1.1 Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts.	UN Environment/MAP	IW and CW
	1.2 Mediterranean Pollution Hot Spots Investment Project.	EIB, UN Environment/MAP	IW and CW
	1.3 Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC).	EBRD, UN Environment/MAP	IW and CW
2. Enhancing Sustainability and Climate Resilience in the Coastal Zone	2.1 Mediterranean Coastal Zones Climate Resilience Water Security and Habitat Protection.	UN Environment/MAP, PAP/RAC, Plan Bleu, UNESCO-IHP, GWP Med	IW
	2.2 Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem NEXUS.	GWP Med, UN Environment/MAP	IW
	SCCF Project: Enhancing Regional Adaptation to Climate Change in	UN Environment/MAP, PAP/RAC, Plan Bleu, GWP Med	CC

	Mediterranean Marine and Coastal Areas.		
3. Protecting Marine Biodiversity	3.1 Management Support and Expansion of Marine Protected Areas in Libya.	UN Environment/MAP IUCN, SPA/RAC WWF Med	BD
4. Knowledge Management and Programme Coordination	4.1 Mediterranean Sea LME Environment and Climate Regional Support Project.	UN Environment/MAP	IW and CW

Attendance

4. The Second Regional Consultation brought together 50 participants, including representatives from eight of the nine countries that endorsed the MedProgramme and all 11 of the implementing and executing agencies. Also in attendance were representatives of the Permanent Delegations to UNESCO of Albania, Egypt, Lebanon, Montenegro and Tunisia. The complete list of participants is set forth in Annex 2.

5. The names, titles and affiliations of the GEF Operational Focal Points of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro and Tunisia (or their nominated representatives) that participated in the regional consultation are provided in Table 2.

Table 2 Names, titles and affiliations of the GEF Operational Focal Points and the nominated representatives that participated in the Second Regional Consultation for the MedProgramme

Country	Representative(s)	Title and affiliation
Albania	Ms. Jula Selmani	Chief of Projects Unit, National Agency of Protected Areas, Ministry of Tourism and Environment
Algeria	Ms. Samira Hamidi*	Inspectrice Centrale de l'Environnement et du Développement Durable, Ministère des Ressources en Eau et de l'Environnement, Direction Générale de l'Environnement et du Développement Durable
Bosnia and Herzegovina	Mr. Senad Oprašic*	Head of Environmental Protection Department, Ministry of Foreign Trade and Economic Relations
Egypt	Mrs. Abir Abu Zeid	Undersecretary for International Cooperation and Technical Assistance at EEAA, Ministry of International Cooperation
Lebanon	Ms. Olfat Hamdan	Head of Protection of Urban Environment Department, Ministry of Environment
Libya	Mr. Mustafa Soliman*	Management Committee Member, Environment General Authority
Montenegro	Ms. Ivana Stojanovic	Advisor, Department for Mediterranean Affairs, Ministry of Sustainable Development and Tourism
Tunisia	Mr. Karim Sahnoun	Directeur du suivi des conventions et des projets de coopération avec les partenaires étrangers, Direction Générale des Relations Extérieures, Ministère des Affaires Locales et de l'Environnement

* GEF Operational Focal Point

Presentations

6. Presentations were delivered for the eight Child Projects of the MedProgramme, as well as a progress report on the preparation of all projects and interventions on the development of the MedProgramme's overarching strategies for Knowledge Management and Gender Mainstreaming. The present report does not attempt to summarize these presentations, but focuses rather on the discussions they prompted.

7. All of the presentations delivered during the Second Regional Consultation are available at: https://www.dropbox.com/sh/544agsnimsbag3m/AAB9dRSpwR9Ur5qRkTzNpPO_a?dl=0.

Welcoming remarks and initial discussions

8. Ms. Alice Aureli, Chief of the Section on Groundwater Systems and Settlements at UNESCO's International Hydrological Programme (IHP), welcomed participants on behalf of UNESCO and declared that the preparation of the MedProgramme was an excellent example of effective collaboration between countries, UN organizations, nongovernmental organizations and associations. Ms. Aureli recalled that implementing solutions to the complex environmental challenges in the Mediterranean will require a multi-sector, multi-disciplinary strategy, consistent with the programmatic approach used in the design of the MedProgramme.

9. Mr. Gaetano Leone, Coordinator of the UN Environment/MAP-Barcelona Convention Secretariat, welcomed participants and thanked UNESCO for hosting the event. Mr. Leone observed that the decision to prepare a multi-focal area programme with the GEF had been a risk, but one that was carefully considered and necessary to amplify the positive impacts of the work of the many stakeholders in the region that had joined forces in 2016 to realize a collective vision: "A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse contributing to sustainable development for the benefit of present and future generations". Mr. Leone recalled that the MedProgramme builds on the work undertaken in the region by the Contracting Parties, the UN Environment/MAP Regional Activity Centres and other partners, as well as on the foundations of an important set of tools developed in the framework of the Barcelona Convention, including its Protocols, the Transboundary Diagnostic Analysis, and regional and national action plans, amongst others. Mr. Leone recognized the GEF for its twenty years of investments in the region, many of which directly supported these activities. In closing, Mr. Leone informed participants that significant progress had been made since the First Regional Consultation in March 2018, noting that two Child Projects of the MedProgramme are ready for submission to the GEF, that two additional Child Projects are nearing finalization, and that the remaining four Child Projects will be completed by the close of 2018.

10. Mr. Yegor Volovic, the UN Environment GEF Portfolio Manager for International Waters (IW), declared that the MedProgramme was one of UN Environment's flagship initiatives due to its wide-reaching activities, its innovative programmatic approach, and its ability to convene a diverse set of stakeholders to design interventions on the ground, including international finance institutions, development banks, the MAP system with its Regional Activity Centres, and technical experts. He recalled that the implementation of actions on the ground represents one of the key comparative advantages of UN Environment and the Regional Seas Programme (RSP) that it administers. Mr. Volovic noted that the Barcelona Convention and the Mediterranean Action Plan, which form the legal and policy framework for the MedProgramme, were developed in the context of the RSP for the Mediterranean, one of the first that was established.

11. Ms. Eloise Touni, the UN Environment GEF Task Manager for Chemicals and Waste (CW), recalled that the MedProgramme's activities on CW would support countries in efforts to meet their commitments on Persistent Organic Pollutants (POPs) and mercury under the Stockholm, Basel and Minamata Conventions and announced the corresponding targets for the MedProgramme: removal of 50 tons of mercury and 3,250 tons of POPs. In terms of progress with the development of the MedProgramme's CW activities, Ms. Touni informed participants that quantities of wastes had been confirmed in the participating countries and that life cycle analyses had been undertaken to identify strategies for the prevention of new wastes, especially the new POPs recently added to the Stockholm Convention. Ms. Touni also highlighted a challenge concerning the mercury removal activities intended to assist countries meet obligations under the Minamata Convention: since the Convention only recently entered into force, many countries have still not ratified it, thereby affecting their ability to take part in the mercury removal activities foreseen under the MedProgramme. Ms. Touni asked the representatives of the participating countries to indicate any assistance they may require to ratify the Minamata Convention, and offered the full support of UN Environment in this regard.

Day 1 Agenda Item 1: GEF and the Mediterranean – 20 years of support, and expectations under GEF-7

12. Mr. Steffen Hansen, Environmental Specialist on International Waters for the Europe and Central Asia regional team at the GEF Secretariat (hereafter the representative of the GEF Secretariat), reconfirmed that the MedProgramme is a flagship for the GEF in the region and outlined the interventions leading up to its development that the GEF had financed in the Mediterranean over the past 20 years. These have included the preparation of the previous Transboundary Diagnostic Analyses (TDAs) and of the Strategic Action Programmes on pollution (SAP MED) and biodiversity (SAP BIO) in the Mediterranean. He noted that several factors were creating momentum that will increase the MedProgramme's chances for success, including the update by countries of their National Action Plans (NAPs) for the prevention of land-based pollution; the scaling up of these action plans; and capacity building for institutional reforms. Responding to an earlier statement about the risk involved in developing an ambitious multi-focal area programme, the representative of the GEF Secretariat recalled that the GEF is committed to doing "what is difficult, what might fail" but to ensure that this process leads to positive results for countries.

13. In 2018, countries pledged US$ 4.1 billion for the seventh replenishment of the Global Environmental Facility (GEF) trust fund. This new four-year investment cycle (GEF-7) will provide funds to protect the planet and human wellbeing through activities in the GEF focal areas of Biodiversity, Chemicals and Waste, Climate Change, International Waters, Land Degradation, and through other programs.

14. The GEF has set three strategic objectives for the International Waters focal area under GEF-7: (i) strengthening the Blue Economy opportunities, (ii) improving management in the Areas Beyond National Jurisdiction, and (iii) enhancing water security in freshwater ecosystems. Enhancing water security is one of the primary objectives of the MedProgramme, and is reflected in the Child Projects of Component 2 and the activities to promote the sustainable management of coastal aquifers, integrated water resources management, adaptation to climate change, and the nexus approach for evaluating competing demands for water, energy, food and ecosystem goods and services.

15. Further information about the GEF-7 programming framework and the associated global environmental benefits can be found in the GEF Council Document GEF/R.7/19 GEF-7 Replenishment Programming Directions.

Day 1 Agenda Item 2: Remarks from the Permanent Delegations to UNESCO

16. The representative of UNESCO IHP opened the floor to interventions from the Permanent Delegations to UNESCO, recalling that one of the assets of UNESCO's participation in the MedProgramme was its direct voice with the representatives of the countries, who will be able to support implementation of the programme by providing information and facilitating contacts with institutions, scientist and technicians.

17. H. E. Mr. Ferit Hoxha, Ambassador Extraordinary and Plenipotentiary, Permanent Delegate of Albania to UNESCO, thanked the partners of the MedProgramme for their work to protect the Mediterranean Sea and its coastal areas, and confirmed that the activities of the MedProgramme would assist Albania in its efforts to achieve progress through sustainable development and protection of the environment. The Ambassador recalled that Albania was facing increasing risks associated with climate change and natural hazards and that the country's coastal zone was most vulnerable to these risks, which were affecting water supplies, agriculture and tourism in these areas. The Ambassador also cited a number of expectations for the MedProgramme, including strong coordination, effective exchange of information and opportunities for capacity building, increased resilience to climate change in coastal communities, assistance with the management of groundwater resources, and the protection of biodiversity.

18. H. E. Ms. Dragica Ponorac, Ambassador Extraordinary and Plenipotentiary of Montenegro to France, Permanent Delegate of Montenegro to UNESCO, also thanked the partners and expressed Montenegro's satisfaction with participating in the MedProgramme. The Ambassador underlined the importance of the MedProgramme to Montenegro, which is currently working to meet its obligations under Chapter 27 (Environment) for its accession to the European Union (EU), which will require more than US$ 1.7 billion in investments. The Ambassador reminded participants that Montenegro is defined as an ecological state in its Constitution, and reiterated the country's commitment to meet the objectives of the MedProgramme especially through the activities foreseen in the hotspot areas of the Kotor Bay and the Bijela shipyard.

19. H.E. Mr. Ghazi Gherairi, Ambassador Extraordinary and Plenipotentiary, Permanent Delegate of Tunisia to UNESCO, thanked the partners for their collaboration to implement the MedProgramme, and expressed appreciation for the fact that the programme will address the role of the environment in ensuring security. The Ambassador noted that the overarching challenge for the region is to transmit a healthy Mediterranean to the next generation, and that Tunisia is aware of the stakes at hand and has placed environmental values at the heart of its strategy of growth for the future. The Ambassador also took the opportunity to recognize the IHP for its work with the Government of Tunisia. In closing, the Ambassador pledged the willingness of the Government of Tunisia to provide the tools necessary for the success of the MedProgramme.

20. The Coordinator of the UN Environment/MAP-Barcelona Convention Secretariat thanked the ambassadors for their remarks and recalled that the MedProgramme is being prepared under the leadership of the participating countries and that their guidance is important to move the programme towards success. The Coordinator highlighted that all participating countries of the MedProgramme are Contracting Parties of the Barcelona Convention, and many are participating in the Bureau including Egypt, Montenegro and Tunisia as well as Albania which currently holds the presidency. In closing, the Coordinator expressed gratitude to all countries present and contributing to the MedProgramme.

Day 1 Agenda Item 3: Setting the scene and objectives of the consultation

21. Mr. Lorenzo Galbiati, Project Pool Manager at the UN Environment/MAP-Barcelona Convention Secretariat (hereafter the Secretariat), reviewed the agenda of the consultation with participants and outlined the main objectives of the two-day event: (i) update the GEF Operational Focal Points on the status of the development of all Child Projects; (ii) request their feedback on outstanding issues; (iii) agree on the next steps for finalization of the preparation phase of the MedProgramme; and (iv) present the main features of the Knowledge Management and Gender Mainstreaming Strategies that will be applied to all Child Projects.

22. The Secretariat recalled that the MedProgramme builds on the strong foundations established in the region from more than US$ 70 million in investments from the GEF over 20 years for activities supporting the implementation of the Barcelona Convention. These investments have led to the development of the initial Transboundary Diagnostic Analysis for the Mediterranean Large Marine Ecosystem (TDA-MED) as well as its 2005 update and 2015 supplement on coastal aquifers; Strategic Action Programmes to Address Pollution from Land-based Activities (SAP-MED) and for the Conservation of Biological Diversity (SAP-BIO), as well as their associated National Action Plans (NAPs); and the Protocol on Integrated Coastal Zone Management (ICZM).

23. The Secretariat also informed the participants about the delays encountered in the development of the Child Projects and explained that the period for submission to the GEF would be extended to December 2018. However, this should not affect the anticipated initiation of execution of the MedProgramme, which is foreseen in the first or second quarter of 2019.

Day 1 Agenda Item 4: Progress report on preparation of the MedProgramme Child Projects and their submission to the GEF

24. The Secretariat provided the milestones of the MedProgramme (Figure 1), an update on the status of action items from the First Regional Consultation in March 2018 (Table 3), the status of the development of each of the Child Projects (Table 4), the national and regional consultations foreseen between October and December 2018 (Table 5), the schedule for the completion of the preparation phase of the MedProgramme (Table 6) and the tentative timeline for the initiation of activities (Table 7).

Figure 1 Milestones of the MedProgramme (2016 – 2019)

Table 3 Status of action items from First Regional Consultation for the MedProgramme

	Action item	Responsibility	Status
1.	An overview of national and regional activities in each country	UN Environment/MAP	Complete
2.	A responsibility matrix for the executing structure of each Child Project	UN Environment/MAP	Complete
3.	Contact information for all implementing and executing partners	UN Environment/MAP	Complete
4.	Instructions on the preparation of co-financing letters	UN Environment/MAP	Complete
5.	An overview of national stakeholders engaged during project preparation	UN Environment/MAP	Ongoing
6.	A list of national thematic experts for CW and IW that will review project documents	GEF Operational Focal Points	Complete
7.	Letters of co-financing for Child Projects 1.2, 2.1 and 4.1	GEF Operational Focal Points	7 of 9 received
8.	Support the GEF Operational Focal Points in the identification of initiatives that can constitute co-financing contributions to the Child Projects	Executing partners	Complete
9.	Provide letters of co-financing for Child Projects 1.2, 2.1 and 4.1	Executing partners	Complete

Table 4 Status of the development of the Child Projects (CP) of the MedProgramme

Project	Draft application package complete? (Yes/No)	Final application package complete? (Yes/No)	Anticipated timeframe for PRC[1]	Anticipated timeframe for submission to GEF
CP 1.1	Yes	No	November 2018	December 2018
CP 1.2	Yes	No	November 2018	November 2018
CP 1.3	Yes	No	(Not applicable)	December 2018
CP 2.1	Yes	Yes	October 2018	October 2018
SCCF	Yes	Yes	October 2018	October 2018
CP 2.2	Yes	No	December 2018	December 2018
CP 3.1	Yes	No	December 2018	December 2018
CP 4.1	Yes	No	November 2018	November 2018

Table 5 National and regional consultations foreseen between October and December 2018

Project	Type of consultation	Timeframe
CP 1.1	Virtual (comments gathered via email)	November 2018
CP 1.2	Virtual (comments gathered via email)	October 2018
CP 1.3	Virtual (comments gathered via email)	December 2018
CP 2.2	Regional meeting for all countries	November 2018
CP 2.2	Virtual (comments gathered via email)	December 2018
CP 3.1	National meeting	October 2018
CP 4.1	Virtual (comments gathered via email)	October 2018

Table 6 Schedule for the completion of the preparation phase of the MedProgramme

Timeframe	Actions
September – December 2018	• Finalize all application packages • Complete all PRCs • Submit all application packages to GEF for review • Obtain GEF CEO endorsement • Prepare all final reports and expenditure statements for PPG
January – March 2019	• Close all legal agreements for PPG phase with implementing and executing partners • Formal closure of the PPG phase

[1] PRC: UN Environment's Project Review Committee, the internal review undertaken for all GEF projects prior to their submission to the GEF Secretariat for CEO endorsement. EBRD, as an implementing agency for the GEF, is not subject to this review.

Table 7 Tentative timeline for the initiation of activities of the MedProgramme

Timeframe	Actions
November – December 2018	• Establish the legal and procedural frameworks for the Programme execution • Evaluate needs for the new legal agreements that will be established with implementing and executing partners, national institutions, etc. • Prepare terms of reference for staff that will be involved in the Programme
January – March 2019	• Establish new legal agreements • Set an operative budget in the UN Environment Enterprise Resource Planning System (Umoja) • Allocate funds for each Child Project
April – June 2019	• Initiate preparation of the inception report and workshop • Arrange consultations with the countries • Staff the Child Projects

25. Ms. Olfat Hamdan, the representative of the GEF Operational Focal Point of Lebanon (hereafter the representative of Lebanon), inquired about one of the action items from the First National Consultation, namely the nomination by the GEF Operational Focal Points of national CW and IW focal points, indicating that Lebanon had not provided this information. The Secretariat informed that the selection of national focal points for CW and IW for the purposes of the MedProgramme was an internal matter for each country, and that all communications from the Secretariat regarding project development would continue to be directed to the GEF Operational Focal Point. As agreed at the First Regional Consultation, the GEF Operational Focal Point will coordinate the review of project documents with their national experts and provide a single set of comments to the executing agency that is responsible for the preparation of the Child Project.

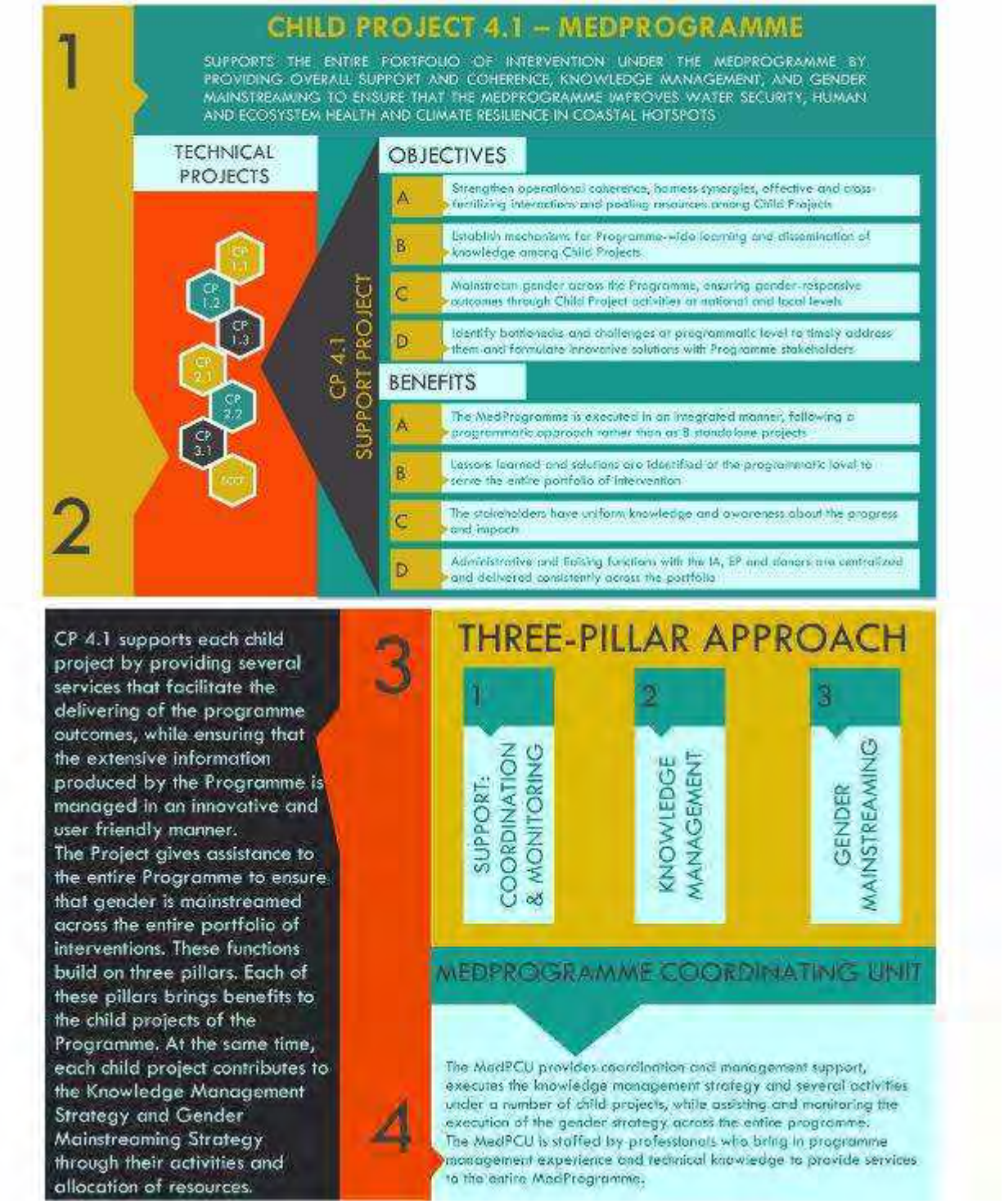
26. Mr. Karim Sahnoun, the representative of the GEF Operational Focal Point of Tunisia (hereafter the representative of Tunisia), asked for clarification about the national activities for Child Project 2.2 presented in the overview of national and regional activities of the Child Projects for each country. Mr. Dimitris Faloutsos, Deputy Regional Coordinator of GWP Med, the leading executing agency for this Child Project, explained that a nexus assessment for the North West Sahara aquifer was foreseen in the context of a project funded by Sida, and that this assessment would contribute to the overall results of Child Project 2.2, but that no GEF funds would be used to finance national level activities in Tunisia for this Child Project.

<u>Day 1 Agenda Item 5: Update on Child Project 4.1</u>

27. Child Project 4.1 will play a key role in the MedProgramme, as it will: (i) monitor the progress of the entire portfolio of projects towards the programme's overarching goal of enhancing environmental security, and (ii) provide essential support functions to all Child Projects of the MedProgramme through three main lines of action: coordination and monitoring; knowledge management; and gender mainstreaming. In addition, Child Project 4.1 will produce technical activities, including the development of databases, the implementation of the Knowledge Management Strategy, as well as preparation of communication materials and the Annual Stocktaking Meetings. A conceptual overview of the objectives, benefits and structure of Child Project 4.1 is provided in Figure 2.

28. The project document and substantive annexes for Child Project 4.1 will be provided to the GEF Operational Focal Points and the partners for comments by 15 October.

Figure 2 Infographic on the objectives, benefits and structure of Child Project 4.1 (Credit: Debasmita Boral)



29. The Secretariat emphasized that the development of programme-level strategies for knowledge management and gender mainstreaming has not been attempted before in the context of a GEF programmatic approach, and therefore represents an important innovation

for the GEF portfolio. These strategies for the MedProgramme will be provided to the GEF Operational Focal Points and the partners by 8 October for comments.

30. The representative of Lebanon confirmed that Child Project 4.1 has an important role in the MedProgramme, especially for overall coordination and to identify synergies with other initiatives and projects at the regional and international level. The representative of Lebanon then asked for clarification about the link between the MedProgramme Coordinating Unit (MedPCU) and the implementation of activities at the national level. The Secretariat explained that the national activities will be developed by the executing partners of the corresponding Child Projects and that the MedPCU – in the framework of Child Project 4.1 – will monitor progress on all Child Projects and help them to promote their knowledge tools at the level of the programme, in addition to providing other services. The specific modalities for execution of national level activities will be discussed during the inception phase of each Child Project. The Secretariat emphasized that the execution of activities with the relevant national and sub-national institutions for all countries will be coordinated by the executing partners (the approach successfully used in the MedPartnership) and that there was no expectation for the governments of the participating countries to create a national coordination structure for the MedProgramme.

31. Ms. Ivana Stojanovic, the representative of the GEF Operational Focal Point of Montenegro (hereafter the representative of Montenegro), expressed support for the cross-cutting approach proposed for the design of Child Project 4.1 and thanked the partners for reflecting the national priorities of Montenegro in the design of Child Project 2.1 and the SCCF Project. Making reference to the activities of Child Project 2.1 on coastal observation, the representative of Montenegro expressed her point of view about how these activities could be linked to Child Project 4.1. Given that the Child Project 2.1 could not address Montenegro's priority related to the development of a coastal database and observatory with the aim of connecting relevant stakeholders and managers of coastal data, Child Project 4.1 is therefore seen as an opportunity to assist the country with this request (in the context of the execution of the Knowledge Management Strategy and its development of knowledge tools).

32. The Coordinator of the UN Environment/MAP-Barcelona Convention Secretariat declared that a centralized approach to knowledge management for the MedProgramme would be more effective and yield more positive impacts than the decentralized approach employed for the MedPartnership, and stated that the knowledge management platform foreseen under Child Project 4.1 would be important to the MAP system during and after the lifespan of the MedProgramme.

33. Mr. Mohamad Kayyal, MED POL Programme Management Officer, observed that the management function of the MedPCU in Child Project 4.1 had been underemphasized with respect to coordination services, and that this management function would require significant efforts across the various Child Projects. The Secretariat explained that this was provided for in the design of the MedPCU, which would ensure traditional management functions for the Child Projects (such as establishment of legal agreements, financial management and procurement), as well as monitoring functions to measure progress to impacts and to prepare the Project Implementation Reports (PIR) of each Child Project for the GEF. The Project Management Cost (PMC) of each Child Project will support the overall management, coordination and monitoring functions delivered by the MedPCU. It was also noted that the MedPCU will execute technical activities under the Child Projects 2.1, 2.2, 3.1 and 4.1 as well as the SCCF Project. This is not the case for the Child Projects 1.1 and 1.2 where dedicated and specific technical assistance will be identified and supported by the project grants for the execution of the activities.

34. Prof. Michael Scoullos, the Chair of GWP Med, recognized the important step taken by the designers of the MedProgramme to coordinate knowledge in the region, and noted the challenge of harnessing all the knowledge generated by activities on the ground in many countries and with many partners. Prof. Scoullos asked what could be done to facilitate the understanding of the countries about the locations of activities and the potential for synergies. The Secretariat indicated that relevant information on this point would be provided during the presentation on the MedProgramme's Knowledge Management Strategy.

Day 1 Agenda Item 6 – Knowledge Management in the MedProgramme

35. Ms. Lucilla Minelli, the Knowledge Management Expert for the preparatory phase of the MedProgramme, recalled that the overall objective for the Knowledge Management Strategy (KM Strategy) is to "provide a structured and centralized approach to leverage and share knowledge assets generated by the Child Projects of the MedProgramme with the intended beneficiaries and audiences." The KM Strategy was developed through analysis of the Programme Framework Document and background documentation, surveys, exchanges with project designers, desk studies, and contact with relevant technical counterparts regarding performance and functionality of information technologies.

36. The representative of Lebanon recognized that a diverse set of ideas and activities must be accounted for under the KM Strategy and that it will be important to develop indicators to track the progress towards operational objectives and targets associated with specific knowledge management activities. The Secretariat explained that objectives and activities had been established for knowledge management and that an appropriate number of indicators for these would be reflected in the design of Child Project 4.1. The Secretariat reminded the participants, however, that the decision to implement a KM Strategy represents an additional task that goes above and beyond what is required by the Programme Framework Document approved by the GEF for the MedProgramme.

37. The Chair of GWP Med urged the Secretariat to ensure that the knowledge management tools of the MedProgramme are tailored to the needs of policy makers in particular, and not only to those of the coordinating and/or executing agencies. This sentiment was reiterated by Ms. Daria Povh Skugor, Senior Programme Officer at the Priority Actions Programme Regional Activity Centre (PAP/RAC), who also inquired about the source of the human and financial resources that would be necessary to implement the KM Strategy. The Secretariat confirmed that governments and policy makers are the primary client for the knowledge tools of the MedProgramme, and that the MedProgramme will dedicate sufficient resources to operationalize the strategy, including through the recruitment of a knowledge management expert for the MedPCU and through trainings for partners on how to generate and package data. The Secretariat reminded participants that the KM Strategy is modular in nature, and will start with simple tools and expand to meet the needs of the programme.

38. The representative of the GEF Secretariat noted that the KM Strategy represents an effective tool for the GEF to distill results from the MedProgramme, and asked if the knowledge products of the MedPartnership could be further disseminated via the Knowledge Management Platform, especially to private sector stakeholders. The Knowledge Management Expert confirmed that the results of the MedPartnership would be promoted on the platform, and that the private sector was a targeted audience and beneficiary of the KM Strategy, as well as a potential provider of knowledge. The Secretariat indicated that efforts could be made under the MedProgramme to create partnerships with the private sector.

39. The Chair of GWP Med added that the private sector holds a great amount of data (sometimes of higher quality than that of governments) and recommended that efforts be taken from the

onset of the MedProgramme to clearly define the requirements for data gathering, to determine with countries what data can be shared, and with whom. The representative of UNESCO IHP recalled that in the context of the Barcelona Convention stakeholders have rights to seek data from the private sector, and that the MedProgramme could support these efforts by creating awareness and encouraging the private sector to communicate more.

40. The Secretariat informed participants that the Integrated Monitoring and Assessment Programme (IMAP) of the Barcelona Convention would be considered in the design of the Knowledge Management Platform, and that relevant data from the MedProgramme would be integrated in the IMAP platform.

41. Ms. Abir Abu Zeid, the representative of the GEF Operational Focal Point of Egypt (hereafter the representative of Egypt), expressed satisfaction with the KM Strategy and its goal to integrate all projects and share lessons across the programme, adding that this will be important for all countries. In response to her question about how data would be collected at the national level, the Secretariat explained that the executing partner of each Child Project will have resources to develop activities with the countries and to support national institutions, and that each Child Project will have a dedicated budget for knowledge management activities to produce and manage harmonized data specific to the focus of each Child Project. This includes if appropriate, the use of raw data on specific issues provided by national institutions to contribute to the MedProgramme KM Strategy. The Secretariat reassured participants that data could be shared in an aggregated manner, but that raw data belonging to the countries would not be made available unless the owners of the data agreed to this.

Day 1 Agenda Item 7: Coordination with IW:LEARN and LME:LEARN

42. Mr. Mish Hamid, Project Manager for the GEF International Waters Learning Exchange and Resources Network (IW:LEARN), recalled that the IW:LEARN platform was created to provide knowledge management services to the GEF's International Waters project managers, since International Waters is the only GEF focal area for which an overarching convention or agreement does not exist. LME:LEARN is a cousin initiative of IW:LEARN, providing services to GEF IW projects in coastal and marine areas, with the goal of strengthening global governance of Large Marine Ecosystems (LME). Mr. Hamid outlined the main services of these initiatives, including knowledge sharing and partnership building, information management, programmatic support, and training (biennial International Waters Conferences, GEF project twinnings, …). Further information on both initiatives is available at https://iwlearn.net/.

43. The Secretariat confirmed that the outputs of the Child Projects of the MedProgramme will feed into the IW:LEARN platform, and that information exchanges with IW:LEARN and LME:LEARN are foreseen in the KM Strategy.

Day 1 Agenda Item 8: Gender Mainstreaming in the MedProgramme

44. Ms. Debasmita Boral, the Gender Expert for the preparatory phase of the MedProgramme, provided a brief history of the evolution of gender considerations in development policies and described the benefits of gender mainstreaming before presenting the MedProgramme's Gender Mainstreaming (GM) Strategy. The GM Strategy comprises three lines of action: (i) address gender-blind hurdles with gender-differentiated consequences; (ii) mitigate gender-specific barriers and discriminatory norms; and (iii) scale up gender-sensitive policies and deliver gender-responsive outcomes. The MedProgramme is operationalizing the GM Strategy in the preparatory phase by conducting tailored gender assessments and preparing

costed gender action plans for each Child Project. Specific activities on gender will be defined and approved during the inception phase with all stakeholders.

45. The Secretariat recalled that Child Project 4.1 will ensure overall monitoring of the implementation of the GM Strategy and that executing partners will receive training on how to mainstream gender in project activities.

46. The Chair of GWP Med suggested that in some cases, project activities should also be designed to consider the specific needs of marginalized groups, in addition to considerations for gender.

Day 1 Agenda Item 9: Update on Child Project 2.1

47. Child Project 2.1 encompasses activities on Integrated Coastal Zone Management (ICZM), protection of coastal aquifers and groundwater-related ecosystems, as well as integrated management of water resources management, including conjunctive management of surface water and groundwater resources. A joint presentation on the development of the project and its activities was made by representatives of the four executing partners: PAP/RAC (Ms. Daria Povh), Plan Bleu (Mr. Antoine Lafitte), GWP Med (Mr. Dimitris Faloutsos) and UNESCO IHP (Mr. Youssef Filali-Meknassi).

48. Mr. Amr Abdallah Morsy, First Secretary of the Permanent Delegation of the Arabic Republic of Egypt to UNESCO, informed the Secretariat that the Government of Egypt will provide written comments to IHP to be reflected in the final version of the project document for Child Project 2.1.

49. The representative of Lebanon also indicated that Lebanon would provide comments on the project document and furthermore asked for clarification on the activities foreseen in the Damour area of Lebanon, including on the management approach that would be employed for the Damour area and on responsibilities for the implementation of the management that will be produced for this area. The executing partners confirmed that a river basin management approach will be used in the design of an integrated resources management plan for the Damour area (taking into account upstream activities that affect the coast) and that the implementation of the plan will be the responsibility of the country.

50. The representative of Montenegro raised a concern about one of the activities of Child Project 2.1 foreseen in Montenegro, "Preparation of the Management Plan for the Buna-Bojana Transboundary Aquifer", noting that the title of this plan was similar to the existing plan for the Buna-Bojana area prepared under the MedPartnership. The Secretariat promised to address this concern in the final project document, based on the comments that the representative of Montenegro will provide.

51. Ms. Samira Hamidi, the GEF Operational Focal Point of Algeria (hereafter the representative of Algeria) expressed a wish to see more reference in the project document to the activities on ICZM already undertaken in Algeria (preparation of a coastal strategy and a coastal plan for the Reghaia area) and to discuss the possibility of having activities on ICZM in Algeria that were more concrete than those described in the project document (support for ratification of the ICZM Protocol). The representative of PAP/RAC recalled that the adoption of the ICZM tools already developed in Algeria would support the adoption of the ICZM Protocol, and that efforts would be made to seek additional investments to support Algeria in this work. The Secretariat clarified that no promises could be made however at this stage about the development of bankable projects and access to loans under the activities of Child Project 2.1.

Day 1 Agenda Item 10: Update on the GEF Special Climate Change Fund (SCCF) Project

52. Mr. Matthew Lagod, Consultant for UN Environment/MAP, outlined the progress achieved on the preparation of the SCCF Project and its activities. The SCCF Project will enhance regional adaptation to climate change in Mediterranean marine and coastal areas through four lines of action: (i) stakeholder engagement and capacity building; (ii) application of best practices for climate resilience in the coastal zone; (iii) access to climate financing mechanisms; and (iv) knowledge management and project coordination. The project document for the SCCF Project is complete and will be submitted to UN Environment's Project Review Committee in October 2018.

Day 2 Agenda Item 1: Update on Child Project 1.1

53. A joint presentation on the development the Child Project 1.1 and its activities was made by representatives of the implementing and executing agencies – Ms. Eloise Touni of the Chemicals and Health Branch/ GEF Team at UN Environment and Ms. Marina Markovic of the UN Environment/ MAP – MED POL. Project activities under the CW component are designed to remove existing stockpiles of persistent organic pollutants (POPs) and mercury, and to prevent the generation of new wastes containing these pollutants. Disposal activities will be carried out in two phases. Phase 1 will target stockpiles verified during the current preparation phase of the project as being ready for immediate disposal, and Phase 2 will entail further inventories and data gathering to identify the remaining stockpiles that can be eliminated to meet the project's disposal targets. Prevention activities will focus on strategies for avoiding further generation of wastes containing mercury and two types of new POPs (PFOS and HBCD). An additional set of activities will be undertaken under the IW project component to produce an updated TDA for the Mediterranean (including gender assessment), a report on progress to impacts, a data sharing policy and an offshore monitoring strategy. The project document for Child Project 1.1 will be submitted to the GEF for endorsement in December 2018.

54. The representative of Lebanon inquired about the modalities for implementation of the activities, whether the new POPs targeted under the project could be expanded to include other chemicals (such as SCCP, a priority chemical for Lebanon), and also about how countries had been consulted about the International Waters (IW) activities. In terms of implementation modalities, Ms. Touni explained for each Phase 1 disposal site an environmental management plan (EMP) would be developed to establish responsibilities, identify national capacities and determine the need to bring in outside assistance. Regarding the possibility of considering additional new POPs for prevention activities, Ms. Touni indicated that it could be discussed, but recalled the existing proposals for Lebanon were designed to address the POPs identified in the country's NIP. Regarding the consultations on the IW activities, Ms. Markovic explained the meetings organized within the MAP system were used to consult the Contracting Parties of the Barcelona Convention (on, for example, national needs for IMAP – Integrated Monitoring and Assessment Programme – implementation, indicators and other relevant topics); proceedings of such meetings were used as a starting point in developing relevant sections of the project document. The Secretariat reconfirmed that the countries would have ample opportunity to review and comment on the project document prior to its submission to the GEF.

55. The representative of Egypt recalled that Egypt had expressed interest in participating in the national project activities, and had recently provided UN Environment with its NIP, the list of relevant national institutions and an indication of candidate companies for the development of prevention pilots. The representative of Egypt inquired about how the country could catch

up to the others in the project, about the possibility of reinforcing national capacities, and about the criteria for allocation of funds to the countries. She also expressed interest to receive more information on the forums used to consult the countries on the needs for the development of IW activities, in particular proceedings of the meeting held in July 2018 in Rome on the IMAP implementation. Ms. Touni, taking the questions in turn, explained that Egypt could not participate in Phase 1 for disposal but that this may be possible for Phase 2. In terms of enhancing national capacities, the EMP process for each disposal site will include an assessment of national capacities, and national experts will gain expertise by participating in execution of the EMP and inspection activities under the supervision of UN Environment consultants. Criteria for allocation of resources to priority sites is based on the presence of verified stockpiles that are ready for immediate disposal and also on the co-financing contribution that countries may bring to dispose additional quantities of waste. Priorities for disposal sites will be reviewed each year during the project's steering committee. Finally, Ms. Markovic assured that the requested information on the Rome meeting deliberations will be shared with the Government of Egypt.

56. The representative of Algeria underlined the importance of the project to the Government of Algeria, its wish to participate in the activities on mercury disposal and its need for capacity building with respect to mercury elimination and implementation of its NAP (National Action Plan). The representative of Algeria also informed participants that experts from UN Environment were currently being hosted in Algeria for a technical mission for the project and that all necessary information would be provided.

57. The representative of Montenegro confirmed that Montenegro's priorities for the project were well represented in the activities considered for the project, while inquiring whether the priorities for Phase 2 had been confirmed and expressing interest for hearing about possible synergies with Child Project 1.3. Ms. Touni responded that the project document would not make reference to sites for Phase 2. The first step of Phase 2 will be to confirm the presence of the chemicals reported in the national inventories/ accounted for in the project document, followed by decisions about site selection during the second or third steering committee meetings.

58. Mr. Roland Weber, Associated Expert of SCP/RAC, called on the GEF to consider activities on POPs that were not in NIPs but that were particularly dangerous, difficult and expensive to remove, and which are seriously affecting drinking water supplies.

Day 2 Agenda Item 2: Update on Child Project 1.2

59. Mr. Mark Pevsner, Senior Advisor – Strategy and Coordination Division Advisory Services Department/Projects Directorate of the European Investment Bank (EIB), explained that the primary objective of Child Project 1.2 is to prepare investments for physical infrastructure projects to reduce the discharges of untreated or partially treated wastewater that impact the sea. The target countries for Child Project 1.2 are Egypt, Lebanon and Tunisia, and the project document is nearly complete. The representative of UN Environment/ MAP – MED POL, Ms. Markovic, presented a component of the project that will support development of regional standards (wastewater management, sludge management, desalinization and aquaculture) for consideration and adoption by the Contracting Parties of the Barcelona Convention.

60. The representative of Tunisia recalled the country's strong involvement in the project. He asked about developments related to his recommendation (expressed at the First Consultation meeting from March 2018) for a coordinated approach in the implementation of the activities on mercury in Child Projects 1.1 and 1.2 , including how Tunisia would benefit from these. Ms. Touni explained that analysis was ongoing about whether mercury activities

originally foreseen under Child Project 1.2 would be taken up by Child Project 1.1, whereas Child Project 1.1 is not aiming to facilitate access to investments for decontamination, but rather focuses on removal of mercury from those countries that had ratified the Minamata Convention. Child Project 1.1 activities in Tunisia will thus be limited to removal of mercury stockpiles. The representative of EIB added that EIB would consider granting a loan for any well-prepared project on mercury decontamination that a country was prepared to undertake. The Secretariat recalled that the priorities of the Child Projects are set in the Programme Framework Document for the MedProgramme approved by the GEF in 2016, and that the first priority is to meet the targets set forth therein for disposal/removal and co-financing.

61. The representative of Lebanon indicated that the country has an important need for wastewater projects and capacity building in this domain, and asked for capacity building activities to be included in the project. Regarding the regional standards to be developed under the project, the representative of Lebanon emphasized the high relevance of regional wastewater and sludge management standards for her country. As regards desalination, the advice was to also take into account/address small and medium sized enterprises in Lebanon and their small-scale desalination capacities.

62. The Chair of GWP Med stated that the Mediterranean region needed active encouragement to shift towards non-conventional water resources, and considered that the regional standards to be developed under the project could contribute to this shift. Ms. Maria Diamanti, Environmental Expert of EIB, agreed that water reuse is important but noted that society's perception of this was poor. EIB works to raise awareness about the quality of treated wastewater, but ultimately it is a country's choice to encourage acceptance for the use of treated wastewater. As water becomes more scarce, the public's opinion about the use of treated wastewater may change. The Chair of GWP Med noted that there has been a rapid shift in the mentality of people regarding non-conventional water resources – including through efforts of religious leaders that have expressed support for the use of these kinds of water resources – and that the partners and countries of the MedProgramme should collectively step up efforts to encourage the use of these resources.

Day 2 Agenda Item 3: Update on Child Project 1.3

63. Two representatives of European Bank for Reconstruction and Development (EBRD) – Ms. Astrid Motta, Principal, Energy Efficiency and Climate Change, and Ms. Claudia Neuschulz, Analyst – presented the progress on the development of activities for Child Project 1.3, which is designed to reduce land-based sources of pollution in hotspots through a combination of technical assistance and investment grants to rehabilitate wastewater treatment plants and increase the volume of wastewater treated in the region. Under the CW component of the project, activities are being developed aiming to reduce and prevent 1,250 t of POPs. Like UN Environment, EBRD is an accredited GEF agency and has its own modalities for project preparation. EBRD intends to submit the project document for Child Project 1.3 to the GEF by December 2018.

64. Two examples of existing on-the-ground support from EBRB were presented. The first is a technology transfer platform designed to assist countries adopt best technologies; EBRD provides a loan to the countries to finance the implementation of the technology and countries later recover up to 25% of the loan from grants. The second example is an infrastructure project preparation facility.

65. The representative of Egypt inquired about the business model for the implementation of Child Project 1.3. Ms. Motta indicated that the project will be implemented through a combination of technical assistance and investment grants. EBRD assists companies to

identify the best technologies for their needs and proposes loans to enable companies to finance implementation of these technologies (for example to shift to PBC-free production methods, to promote water efficiency, …). Following successful implementation of the technologies, EBRD will reimburse a portion of the implementation cost. Countries are eligible for this assistance only if they are bankable (i.e., able to borrow money).

66. The representative of Lebanon asked for clarification about the specific activities foreseen in the project. The Secretariat responded that a portfolio of potential investments will be developed during the project preparation phase, but that it was not possible to commit to specific investments at present. The Secretariat also recalled that EBRD is an implementing agency of the GEF and as a development bank, has different working modalities than UN Environment regarding budgeting, reporting and execution of activities. In the MedProgramme, EBRD will also have its own project management budget which is separate from that of UN Environment. The management of projects in the UN Environment portfolio will be ensured through Child Project 4.1.

67. In response to a question from the representative of Egypt, the Secretariat clarified that the GEF funds provided for Child Project 1.3 are not for loans but rather for pre-investment studies to prepare investments. The representative of the GEF confirmed that the GEF provides seed money to institutions that can scale-up investments to deliver global environmental benefits.

68. The representative of Montenegro inquired about the consultations with countries for Child Project 1.3 that were announced during the First Regional Consultation, and indicated that the Government needed more details about activities (including on possible synergies between Child Projects 1.1 and 1.3) before preparing its letter of co-financing. The representative of EBRD explained that the consultations will take place in the coming weeks to inform the countries about the potential activities and the opportunities for investments/loans in the context of this project.

69. The representative of Tunisia asked whether the technical assistance activities of the project included pilot projects for the private sector to demonstrate the effectiveness of new technologies. The representative of EBRD confirmed that demonstration of new technologies is one of the key objectives for this work and that pilot projects could be financed.

Day 2 Agenda Item 4: Update on Child Project 3.1

70. Mr. Atef Limam, MedMPAnet Project Officer at SPA/RAC, described the main lines of action for Child Project 3.1, a project devoted to enhancing the management of Marine Protected Areas (MPAs) in Libya. These include capacity building for managers of MPAs in Libya, the revision of Libya's National Strategy on MPAs and its draft law on protected areas, and an inventory of marine and coastal sites of ecological importance. A consultation with Libyan stakeholders is planned for October 2018, and the project document will be submitted to the GEF in December 2018.

71. Mr. Mustafa Soliman, the GEF Operational Focal Point for Libya (hereafter the representative of Libya), indicated satisfaction with the proposed intervention in Libya and positive anticipation about the implementation of activities on the ground. Regarding the consultation with Libyan stakeholders, the representative of Libya indicated that his presence will be beneficial and that he will also extend the invitation to the Environment General Authority.

72. In response to a question raised about the possibility of MPAs imposing on navigation rights in the high seas, the representative of SPA/RAC confirmed that none of the MPAs in Libya are beyond national jurisdiction. However, efforts are underway in the context of the Barcelona

Convention to create a framework for the creation of MPAs that are beyond national jurisdiction.

Day 2 Agenda Item 5: Update on Child Project 2.2

73. Mr. Dimitris Faloutsos, Deputy Regional Coordinator of GWP Med, provided an overview of the design of activities for Child Project 2.2 and recalled its overarching objective: fostering water-food-energy security and the reduction of land based nutrient pollution and other pressures, through the adoption of the water-food-energy-ecosystems nexus approach. The project activities will follow four main lines of action: strengthening the capacities of institutions on the nexus approach; addressing nexus issues affecting the Mediterranean Sea LME; testing and upscaling nexus solutions; and engaging stakeholders in these processes. A consultation with the participating countries to confirm interest and priorities in the project will be organized in Beirut, Lebanon on the sidelines of the First MENA Nexus Roundtable that will take place from 26-28 November 2018.

Day 2 Agenda Item 6: Discussion

74. In summary, the representatives of Albania, Algeria, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro and Tunisia confirmed the importance of the MedProgramme for their countries and for the region, and endorsed the proposals of UN Environment/MAP on (i) the timeline for finalization of the Child Projects of the MedProgramme and their submission to the GEF Secretariat for endorsement; (ii) the development of the overarching strategies for Knowledge Management and Gender Mainstreaming; and (iii) the arrangements for execution of the MedProgramme through the MedProgramme Coordinating Unit (Med PCU).

75. Ms. Jula Selmani, the representative of the GEF Operational Focal Point of Albania (hereafter the representative of Albania), congratulated the partners and acknowledged the excellent quality of the workshop. She also indicated that although she had not been involved in the previous meetings and the development of the MedProgramme, she now had a clear vision of the process, thanks to the organization of the consultation. In closing, the representative of Albania declared that the strategy for the implementation of the MedProgramme appeared to be effective and would serve the needs of the countries.

76. The representative of Algeria asserted that the MedProgramme is an important opportunity for the region and predicted that it would result in success for countries and partners alike. She emphasized that the effective coordination among the countries and project partners during the preparation phase of the MedProgramme represented a positive start to the process. The representative of Algeria also announced that a coordination mechanism at the national level in Algeria will be implemented to ensure effective interaction with the regional coordination mechanism of the MedProgramme. In closing, the representative of Algeria confirmed that the country is committed to involving government institutions, the private sector and the media in the MedProgramme, and thanked the partners and the GEF for their assistance in depolluting the Mediterranean Sea.

77. Mr. Senad Oprašic, the GEF Operational Focal Point of Bosnia and Herzegovina (hereafter the representative of Bosnia and Herzegovina) thanked the partners for the excellent presentations and asserted that the two regional consultations had provided a solid foundation for the effective implementation of the projects of the MedProgramme. He furthermore recalled the priority that the Government of Bosnia and Herzegovina places on the alignment of all activities and results of the MedProgramme with national legislation, EU Directives and the requirements of EU acquis, as well as the SDGs. In closing, the

representative of Bosnia and Herzegovina wished success to all partners for the implementation of activities, and thanked UNESCO for hosting the meeting.

78. The representative of Egypt thanked the partners for the meeting and confirmed that the presentations had provided a clear indication of the links between the projects and how the MedProgramme is being implemented in a holistic manner. She promised to work to ensure effective communication among national partners involved in the activities, and expressed satisfaction with the fact that the countries sharing the Mediterranean were sitting around the same table and working together for the common good of the Sea. In closing, the representative of Egypt indicated her interest in the implementation of the Knowledge Management and Gender Mainstreaming Strategies and indicated her belief that these will assist countries in dealing with environmental challenges.

79. The representative of Lebanon thanked the partners for a fruitful meeting and reconfirmed the country's commitment to contribute to the MedProgramme and to share the necessary knowledge and information to support its successful execution. She underlined the importance of involving national stakeholders, of ensuring effective coordination and management, and of seeking synergies in the MedProgramme. In closing, the representative of Lebanon expressed her satisfaction with the progress achieved to date, and her positive anticipation for the initiation of the activities of the MedProgramme.

80. The representative of Libya recognized the partners for the progress achieved on the preparation of the MedProgramme, and confirmed that the consultation had been extremely useful for gaining a deeper understanding of the activities and how they will be carried out. He furthermore expressed appreciation for the chance to cooperate with the other countries in the region on the protection of the Mediterranean Sea. At the same time, the representative of Libya shared his concern about the MedProgramme's integrated approach to environmental challenges spanning several GEF focal areas, indicating that this can complicate activities on the ground. In closing, the representative of Libya wished all the partners success in the execution of their activities.

81. The representative of Montenegro thanked the partners for the all the work completed to date, and recalled that one of the benefits of a regional programme is the opportunity for activities covering many thematic areas at both the national and regional levels, which has great value for the countries. She recalled that Montenegro is in the stage of pre-accession to the EU and does not have the resources to finance all the corresponding obligations, and that for this reason it is important to identify additional sources of assistance. Besides the MedProgramme, the Government of Montenegro is also participating in the GEF Adriatic Project and the UN Environment Vienna biodiversity assessment in coastal and marine areas, which will lead to the establishment of three new MPAs in Montenegro. The representative of Montenegro also highlighted the synergies that were identified during the design of the MedProgramme, and notably the integration of activities between Child Project 2.1 and the SCCF Project in Montenegro, maintaining that without a programmatic approach this kind of synergy and integration would not have occurred. In closing, the representative of Montenegro acknowledged the effectiveness of the programmatic approach in terms of communication with partners on the design of activities, and her interest in the future implementation of the Knowledge Management and the Gender Mainstreaming Strategies.

82. The representative of Tunisia thanked the MedProgramme team for the progress achieved on the preparation of the projects and recalled the contributions of Tunisia throughout the process. He also underlined the importance of initiating efforts to establish the implementing modalities at the national level with the relevant institutions to avoid delays and to ensure that the objectives of the MedProgramme are achieved. In closing, the representative of Tunisia

stressed the need to identify synergies and complementarities among the activities of the MedProgramme, and more importantly, with other ongoing and future initiative in the region, such as Horizon 2020 and post-Horizon 2020 activities.

Day 2 Agenda Item 7: Conclusions and closing of the meeting

83. The Secretariat presented the conclusions and next steps recorded during the proceedings of the Second Regional Consultation and asked the GEF Operational Focal Points (or their representatives) for their comments and approval. The GEF Operational Focal Points (or their representatives) endorsed these conclusions and approved the next steps, which appear on page 1 of the present report.

84. The Coordinator of the UN Environment/MAP-Barcelona Convention Secretariat declared that the presentations and discussions had been illuminating and had helped to clarify for everyone once again the importance of the MedProgramme and the complex challenges that would be tackled by this ambitious and innovative joint initiative. He asserted that the overall level of buy-in and interest are high for the MedProgramme and assured that all the concerns raised by the Contracting Parties would be duly addressed in the final project documents, prior to their submission to the GEF Secretariat. The Coordinator thanked all participants for their continued commitment of energy, time and resources and expressed positive anticipation for the continued collaboration. In closing, the Coordinator recognized the contributions of the countries, the partners, the UN Environment team, the GEF and UNESCO, a gracious host for the event and an important partner of the programme.

85. The representative of UNESCO IHP expressed UNESCO's pleasure in hosting the participants of the consultation. Recalling that 21 September is the International Day of Peace, the representative of UNESCO IHP explained that people of all cultures and beliefs were present at UNESCO on this day to discuss peace, and declared that peace can also be built on science and environmental sustainability.

86. The Second Regional Consultation for the MedProgramme was closed at 17.00 on 21 September 2018.

Annex 1
Agenda of the Second Regional Consultation of the MedProgramme

Day 1: 20 September 2018	
9:00 – 9:30	*Registration*
9:30 – 10:00	Welcoming remarks: UNESCO-IHP, UN Environment/MAP and UN Environment/GEF
10:00 – 10:15	1. GEF and the Mediterranean Sea: 20 years of support and expectations under GEF-7
10:15 – 11:00	2. Remarks from the Permanent Delegations of UNESCO
11:00 – 11:30	*Coffee Break*
11:30 – 12:00	3. Setting the scene and objectives of the consultation: UN Environment/MAP
12:00 – 12:30	4. Progress report on preparation of the MedProgramme Child Projects and on their submission to the GEF: UN Environment/MAP
12:30 – 13:00	5. Update on Child Project 4.1: UN Environment/MAP
13:00 – 14:30	*Lunch*
14:30 – 15:00	6. Knowledge Management in the MedProgramme: UN Environment/MAP
15:00 – 15:30	7. Coordination with the GEF's established knowledge management platforms: IW:LEARN and LME:LEARN
15:30 – 16:00	8. Gender Mainstreaming in the MedProgramme: UN Environment/MAP
16:00 – 16:15	*Coffee Break*
16:15 – 17:00	9. Update on Child Project 2.1: GWP-Med, PAP/RAC, Plan Bleu and UNESCO-IHP
17:00 – 17:30	10. Update on the GEF Special Climate Change Fund Project: UN Environment/MAP
17:30– 17:45	11. Conclusions of Day 1
17:45	*End of Day 1*

Day 2: 21 September 2018	
9:00 – 9:15	Opening remarks: UN Environment/MAP
9:15 – 10:00	1. Update on Child Project 1.1: UN Environment/Chemicals and Waste, MED POL, SCP/RAC, Plan Bleu
10:00 – 10:45	2. Update on Child Project 1.2: EIB and MED POL
10:45 – 11:15	*Coffee Break*
11:15 – 12:00	3. Update on Child Project 1.3: EBRD
12:00 – 12:30	4. Update on Child Project 3.1: SPA/RAC, WWF and IUCN
12:30 – 14:00	*Lunch*
14:00 – 14:30	5. Update on Child Project 2.2: GWP-Med
14:30 – 16:00	6. Discussion: • Added-value of GEF programmatic approach; • Complementarities among the Child Projects; • Feedback from the GEF Operational Focal Points.
16:00 – 16:30	*Coffee Break*
16:30 – 17:00	7. Conclusions and closing of the meeting – UN Environment/MAP, UN Environment/GEF and UNESCO-IHP
17:00	*End of the consultation*

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ANNEX S: LIST OF NATIONAL AND REGIONAL STAKEHOLDERS CP1.2

NATIONAL STAKEHOLDERS

1. Egypt

Stakeholder	Public affiliation to	Level	Role/Responsibility
Ministry of Water Resources and Irrigation (MWRI)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to water quality standards, water quality monitoring and pollutant discharges (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3). • Participation in capacity building activities for national water and sanitation companies on the effective operation and maintenance of WWTPs (Output 1.2). • Contribution of expertise on public outreach and engagement on wastewater topics (Output 1.4) and assistance with gender mainstreaming in the wastewater sector (Output 1.5).
Ministry of Housing, Utilities and Urban Communities (MHUUC)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to existing capacities of the WWTPs and extent of sewage collection and disposal systems (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3). • Participation in capacity building activities for national water and sanitation companies on the effective operation and maintenance of WWTPs (Output 1.2). • Contribution of expertise on public outreach and engagement on wastewater topics (Output 1.4) and assistance with gender mainstreaming in the wastewater sector (Output 1.5).

Stakeholder	Public affiliation to	Level	Role/Responsibility
Ministry of Health and Population (MoHP)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to compliance with licenses for pollutant discharges (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3). • Contribution of expertise on public outreach and engagement on human health topics (Output 1.4) and assistance with gender mainstreaming in the wastewater sector (Output 1.5).
Ministry of Agriculture and Land Reclamation (MALR)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to current use of fertilizers and pesticides (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3).
Egyptian Environmental Affairs Agency (EEAA)		Central	• Cooperation on the preparatory studies, including reviews of environmental impact assessments (Output 1.1). • Contribution of expertise on public outreach and engagement on wastewater topics (Output 1.4).
Ministry of Public Sector Enterprises (MoPSE)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to pollution abatement in publicly owned industries (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3).
Holding Company for Water and Wastewater (HCWW)	Ministry of Housing, Utilities and Urban Communities (MHUUC)	Central	• Provision of data for preparatory studies on the WWTPs, including those related to wastewater collection, treatment and disposal (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3). • Participation in capacity building activities for national water and sanitation companies

Stakeholder	Public affiliation to	Level	Role/Responsibility
			on the effective operation and maintenance of WWTPs (Output 1.2). • Cooperation on public outreach and engagement on wastewater topics (Output 1.4).
26 Affiliated Companies (ACs)	Holding Company for Water and Wastewater (HCWW)	Local (Governorate level)	• Participation in capacity building activities for national water and sanitation companies on the effective operation and maintenance of WWTPs (Output 1.2). • Cooperation on public outreach and engagement on wastewater topics (Output 1.4) and assistance with gender mainstreaming actions (Output 1.5).
National Organisation for Potable Water and Sanitary Drainage (NOPWASD)	Ministry of Housing, Utilities and Urban Communities (MHUUC)	Central	• Consultations for preparatory studies on the WWTPs, including those related to finance and investment (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3).
Cairo and Alexandria Potable Water Organization (CAPW)	Ministry of Housing, Utilities and Urban Communities (MHUUC)	Central	• Consultations for preparatory studies on the WWTPs, including those related to finance and investment (Output 1.1), as well as related data required for surveys and studies to inform decision making (Output 1.3).
Egyptian Water and Wastewater Regulatory Agency (EWRA)	Ministry of Housing, Utilities and Urban Communities (MHUUC)	Central	• Consultations for preparatory studies on the WWTPs, including those related to wastewater regulations (Output 1.1)
Industries		Local	• Targeted stakeholders for public outreach and engagement on the benefits of wastewater treatment (Output 1.4).
Farmers		Local	• Targeted stakeholders for public outreach and engagement on the benefits of wastewater treatment and reuse (Output 1.4).
Civil society representatives		Local	• Targeted stakeholders for public outreach and engagement on the benefits of wastewater treatment and reuse (Output 1.4).

Stakeholder	Public affiliation to	Level	Role/Responsibility
NGOs and environmental protection associations		Local	• Targeted stakeholders for public outreach and engagement on the benefits of wastewater treatment and reuse (Output 1.4).

2. Lebanon

Stakeholder	Public affiliation to	Level	Role/Responsibility
Ministry of Energy and Water (MOEW)		Central	• Provision of data for preparatory studies on the wastewater networks, including those related to wastewater policies and plans and water quality standards (Output 1.6), as well as related data required for surveys and studies to inform decision making (Output 1.9). • Participation in consultations aimed at articulating responsibilities in the wastewater sector and the development of operating procedures (Output 1.7). • Participation in activities designed to enhance the capacity of institutions to monitor and evaluate the performance of the wastewater sector (Output 1.8). • Contribution to activities on mainstreaming gender equality in the wastewater sector (Output 1.10).
Water Establishments (WE)	Ministry of Energy and Water (MOEW)	Regional	• Provision of data for preparatory studies on the wastewater networks, including those related to wastewater collection and treatment infrastructure, tariffs, water quality standards, and the quality of effluents from wastewater treatment plants (Output 1.6), as well as related data required for surveys and studies to inform decision making (Output 1.9). • Participation in consultations aimed at articulating

Stakeholder	Public affiliation to	Level	Role/Responsibility
			responsibilities in the wastewater sector and the development of operating procedures (Output 1.7). • Participation in activities designed to enhance the capacity of institutions to monitor and evaluate the performance of the wastewater sector (Output 1.8). • Contribution to activities on mainstreaming gender equality in the wastewater sector (Output 1.10).
Council for Development and Reconstruction (CDR)		Central	• Provision of data for preparatory studies on the wastewater networks, including those addressing wastewater financing and construction (Output 1.6).
Ministry of Environment (MOE)		Central	• Provision of data for preparatory studies on the wastewater networks, including those related to standards for wastewater treatment facilities (Output 1.6), as well as related data required for surveys and studies to inform decision making (Output 1.9). • Participation in consultations aimed at articulating responsibilities in the wastewater sector and the development of operating procedures (Output 1.7). • Contribution to activities on mainstreaming gender equality in the wastewater sector (Output 1.10).
Ministry of Public Health (MOPH)		Central	• Provision of data for preparatory studies on the wastewater networks, including those related to pollution prevention and specifications for water quality testing equipment (Output 1.6), as well as related data required for surveys and studies to inform decision making (Output 1.9). • Participation in consultations aimed at articulating responsibilities in the wastewater sector and the development of operating procedures (Output 1.7).

Stakeholder	Public affiliation to	Level	Role/Responsibility
Municipalities		Local	• Provision of data for preparatory studies on the wastewater networks, including those related to operation and maintenance of sanitation infrastructure (Output 1.6), as well as related data required for surveys and studies to inform decision making (Output 1.9). • Participation in consultations aimed at articulating responsibilities in the wastewater sector and the development of operating procedures (Output 1.7). • Participation in activities designed to enhance the capacity of institutions to monitor and evaluate the performance of the wastewater sector (Output 1.8). • Contribution to activities on mainstreaming gender equality in the wastewater sector (Output 1.10).
Industries		Local	• Contribution to surveys and studies to inform decision making, especially data related to industrial wastewater discharges (Output 1.8).
Farmers		Local	• Contribution to surveys and studies to inform decision making, especially on farmers' use of treated wastewater for irrigation (Output 1.8).
Civil society representatives		Local	• Contribution to surveys and studies to inform decision making (Output 1.8).
NGOs and environmental protection associations		Local	• Participation in consultations aimed at articulating responsibilities in the wastewater sector and the development of operating procedures (Output 1.7). • Contribution to surveys and studies to inform decision making (Output 1.8).

3. Tunisia

Stakeholder	Public affiliation to	Level	Role/Responsibility

Ministry of Local Affairs and the Environment (MALE)	Ministry of Local Affairs and the Environment	Central	• Provision of data for preparatory studies on the WWTPs, including those related to policy and legal frameworks (Output 1.11).
National Sanitation Company (ONAS) & its regional departments		Central & Local	• Provision of data for preparatory studies on the WWTPs, including those related to financing and construction of wastewater treatment facilities (Output 1.11). • Participation in activities designed to enhance the capacity of ONAS to operate and maintain WWTPs and to establish economically sound tariff structures for wastewater services (Output 1.12). • Contributions to the elaboration and updating of Wastewater Master Plans (Output 1.13).
National Environmental Protection Agency (ANPE)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to WWTP effluent quality and control of industrial wastewater discharges (Output 1.11). ANPE will also review and approve any environmental impact assessments prepared in the context of the project.
Coastline Protection and Development Agency (APAL)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to quality of WWTP effluent discharged to wetlands and receiving water bodies (Output 1.11). APAL will also review and approve any environmental impact assessments prepared in the context of the project. • Contributions to the elaboration and updating of Wastewater Master Plans (Output 1.13).
Ministry of Development, Investment and International Cooperation (MDICI)		Central	• Provision of data for preparatory studies on the WWTPs, including those related to financing and coordination among financiers and project promoter (Output 1.11).
Ministry of Finance (MF)		Central	• Provision of data for preparatory studies on the

			WWTPs, including those related to financing and loan disbursements (Output 1.11).
Hygiene and Protection of the Environment Directorate (DHMPE)	Ministry of Public Health (MSP)	Central	• Provision of data for preparatory studies on the WWTPs, including those related to approved uses of treated wastewater and protection of human health (Output 1.11). • Consultation on the use of treated wastewater with respect to the Wastewater Master Plans (Output 1.13).
Regional Commission for Agricultural Development (CRDA)	Ministry of Agriculture, Hydraulic Resources and Fisheries (MARHP)	Local	• Provision of data for preparatory studies on the WWTPs, including those related to the use of treated wastewater in irrigated agriculture (Output 1.11). • Consultation on the use of treated wastewater with respect to the Wastewater Master Plans (Output 1.13).
Industries		Local	• Contribution to preparatory studies for the WWTPs, especially data on industrial pollutants in wastewater (Output 1.11).
Farmers		Local	• Contribution to preparatory studies for the WWTPs, including information about use of treated wastewater in irrigated agriculture (Output 1.11).
Civil society representatives		Local	• Contribution to preparatory studies for the WWTPs, including information about willingness to pay for wastewater services and the public's acceptance of the use of treated wastewater in irrigated agriculture (Output 1.11).
NGOs and environmental protection associations		Local	• Contribution to preparatory studies for the WWTPs, including information about willingness to pay for wastewater services and the public's acceptance of the use of treated wastewater in irrigated agriculture (Output 1.11).

SUB-PROJECT/COMPONENT 2 STAKEHOLDERS

Stakeholder	Level	Role/ responsibility in project implementation
Barcelona Convention Contracting Parties	Regional/ National	Adoption of proposed standards and measures at the biannual Ministerial meetings (COPs); provision of strategic guidance (through the Bureau) in the interim. (Outputs, 2.1, 2.2, 2.3 and 2.4)
UN Environment MAP	Regional	Overall coordination of the process, including consultations through the MAP Focal Points. (Outputs, 2.1, 2.2, 2.3 and 2.4)
MED POL	Regional	Provision of data and expertise, overall guidance and consultations through the MED POL Focal Points; ensuring synergy with the development of new/ updated BC Regional Plans. (Outputs, 2.1, 2.2, 2.3 and 2.4)
EcAp Coordination and Pollution and Marine Litter Monitoring Correspondence Groups	Regional	Provision of data and expertise, advisory role. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Other MAP components (primarily Plan Bleu, SCP/RAC)	Regional	Provision of data and expertise, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)
MAP partners (including international organizations, scientific institutions, civil society)	Regional	Provision of data and expertise, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)
GFCM – FAO	Regional	Cooperation on the development of aquaculture standards. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Key national stakeholders for the project beneficiary countries		
Albania: Ministry of Tourism and Environment	National	MAP and MED POL Focal Point, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Algeria: Ministry of Water Resources and Environment	National	MAP and MED POL Focal Point, consultations
Bosnia and Herzegovina: Hydro-Engineering Institute Sarajevo	National	MAP and MED POL Focal Point, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)

Egypt: Ministry of Water Resources and Irrigation, Egyptian Environmental Affairs Agency	National	Consultations; Egyptian Environmental Affairs Agency as the MAP and MED POL Focal Points. (Outputs, 2.1, 2.2, 2.3 and 2.4)t
Lebanon: Ministry of Energy and Water, Ministry of Environment	National	Consultations; Ministry of the Environment as the MAP and MED POL Focal Point. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Libya: Environment General Authority	National	MAP and MED POL Focal Point, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Montenegro: Ministry of Sustainable Development and Tourism, Environmental Protection Agency	National	MAP and MED POL Focal Points, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Morocco: Ministry of Energy, Mines and Sustainable Development – Department of Sustainable Development	National	MAP and MED POL Focal Point, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)
Tunisia: Ministry of Local Affairs and the Environment, National Environmental Protection Agency	National	MAP and MED POL Focal Points, consultations. (Outputs, 2.1, 2.2, 2.3 and 2.4)

ANNEX T: THE BASELINE SCENARIO: HOTSPOTS IN PROJECT COUNTRIES (EGYPT, LEBANON AND TUNISIA)

EGYPT - ALEXANDRIA AND NILE DELTA COAST

The Mediterranean coast of Egypt spreads over 1,150 km in the southeast portion of the Mediterranean Sea. The coastal area is characterized by the presence of some pocket beaches and lagoons, where most cities are located, and eight calcareous ridges nearly parallel to the shoreline. Pollution hotspots on the Egyptian coast were identified in the updated NAP of 2015 (Figure 1). Three of the hotspots, Lake Maryut, El Mex Bay and Abu Qir Bay, are located close to Alexandria, on the west side of the Rosetta branch of the River Nile. Lake Manzala and Lake Burullus, are located within the Nile Delta. The high pollution levels at these hotspots are the result of a variety of wastes generated from human activities, including agricultural waste, solid waste and industrial discharges. However, a significant part of the problem is the discharge of untreated or partially treated domestic wastewater (sewage) in the canals that flow into these hotspots.

In the past decades the Government of Egypt had given high priority to the provision of piped water supply to both urban and rural areas. As a result, piped water supply increased from 89% to 100% in urban areas and from 39% to 93% in rural areas between 1990 and 2010 despite the rapid population increase during the same time. However, improvement in the wastewater collection and treatment coverage has lagged far behind. Just over 50% of the urban population has access to sewerage services, while the corresponding statistic for rural areas in 2014 was less than 10% (WHO and UNICEF, 2014).

The total wastewater discharge in 2014 was about 10.5 million m^3/day, of which only 50% was treated. The remaining 50% was either discharged untreated or kept in septic tanks. Although the capacity of wastewater treatment plants has increased by more than six times in the last two decades, the existing wastewater treatment infrastructure has a capacity of 6 million m^3/day and presently only serves about 18 million people in mainly urban areas, while currently processing about 4.5 million m^3/day. The National Organization for Potable Water and Sanitary Drainage (NOPWASD) has plans to reach a total available capacity of 15 million m^3/day, serving all urban areas (about 40 million people) and processing about 10 million m^3/day of wastewater, but these plans have not yet fully materialized. Currently, even the cities of Egypt are no exception to the poor wastewater treatment coverage. In addition, recent studies have shown that out of a sample of 44 wastewater treatment plants in Egypt, only 25% are working, most of them below their design standards.

Current environmental conditions: Inadequate sanitation services are a major contributor to the deterioration of both the natural and built environments of the country. The rural populations living in unserved areas continue to rely on traditional cesspool (bayara) evacuation systems, which are failing, particularly in the Nile Delta, due to continuously rising subsurface water levels. To avoid frequent evacuation costs, some residents have resorted to unsafe practices that pose serious threats to human health and the environment. As a result, large amounts of untreated wastewater are disposed of directly into the environment, contributing to groundwater and surface water pollution. Deteriorating water quality in some drains, due to unregulated wastewater discharge, along with the added burden of uncontrolled agricultural and industrial discharges and solid waste, are seriously undermining the government's drainage water reuse strategy. The gender aspect of inadequate sanitation in rural Egypt also requires highlighting: since sanitation and hygiene improvements are often low within the household investment decisions, women and young girls suffer both indignity, health hazards and lack of security.

With continuing high population growth rates (especially in rural Egypt), industrialization, intensification of food production and inadequate wastewater management and infrastructure, the volume of unregulated discharges of contaminated water into water bodies will increase. This will further accentuate threats to human health and wellbeing, with both immediate and long-term consequences for efforts to reduce poverty whilst sustaining the integrity and productivity of water

resources and land.

Figure 1 Egyptian Hotspots (Source: Egypt National Action Plan for Land-Based Sources of Pollution in the Mediterranean Sea 2015)

According to sector data, there is a need to extend sanitation services to at least 60% of the rural population, in addition to improving quality of service to 25% of the population already covered. There are many technical and design complexities and uncertainties in planning and implementing sanitation projects in a complex spatial context in close contact with agricultural land and Egypt's canals and drainage system in the Nile Delta. Due to population size and geographical variations not all settlements can be served by sewerage systems. Moreover, many settlements are divided in multiple clusters located within the watershed of heavily polluted main drains.

The deteriorating conditions have led to growing recognition of the importance of wastewater management for public health and the environment. The Government of Egypt recognizes that national social and economic development objectives will not be realized without ensuring a healthy living environment for all Egyptians in both urban and rural areas, through the provision of potable water and sanitation services. Major advancements have been achieved in the provision of rural potable water leading to major improvements in public health and children's health in particular. However, coverage by sanitation services, which is defined in the Egyptian context as access to centralized wastewater systems in villages, seriously lags behind.

Demographic and Socioeconomic Conditions: Overall, the region is a densely populated, agricultural, predominantly rural area characterized by high levels of poverty. The Nile Delta makes up just 3% of Egyptôs total area, but it is home to 39 million people - 41% of the country's total population of roughly 96 million in 2016. With a total area of about 22,000 km^2, the Nile Delta accounts for two-thirds of Egypt's agriculture. In recent years agricultural productivity in the area has showed signs of decline, mainly due to insufficient drainage as well as seawater intrusion in aquifers as a result of over-extraction of groundwater. In addition, the Nile Delta is one of the most vulnerable river deltas in the world to the impacts of climate change having been identified as one the worldôs three extreme vulnerability hotspots under climate change conditions (IPCC, 2007).

Institutional setup and legal framework: Several government entities are responsible for wastewater management in Egypt. These are the Ministry of Water Resources and Irrigation (MWRI); the Ministry of Housing, Utilities and Urban Communities (MHUUC); the Ministry of Health and Population (MoHP); the Ministry of Agriculture and Land Reclamation (MALR); the Egyptian Environmental Affairs Agency (EEAA) and the Ministry of Public Sector Enterprises (MoPSE). Their responsibilities

are:

- Ministry of Water Resources and Irrigation (MWRI):
  - Formulating the national water policy to face the problem of water scarcity and water quality deterioration.
  - Issuing licenses for domestic and industrial discharges.
  - Monitoring the ambient water quality in the Nile, the irrigation and drainage canals and groundwater.
  - Setting surface water standards in coordination with MoHP and other ministries for: Point sources, Ambient concentrations, Drainage water reuse (mixing with canals). Law enforcement upon notification from MoHP. Covering open irrigation and drainage waterways passing through residential area. Implementing relevant Awareness Campaigns.
  - Coordination with the national institutes to address water quality deterioration. These include MHUUC, MoHP, MoPSE.
- Ministry of Housing, Utilities and Urban Communities (MHUUC): Planning, design and construction of municipal drinking water purification plants, distribution systems, sewage collection systems and municipal Wastewater Treatment Plants (WWTPs).
- Ministry of Health and Population (MoHP): (a) Monitoring compliance of licenses through the analyses of discharges and (b) Setting drinking water standards.
- Ministry of Agriculture and Land Reclamation (MALR): Formulating policies on the use and subsidy reduction of fertilizer and pesticides.
- Egyptian Environmental Affairs Agency (EEAA): Environmental inspection to establishments and notifying MWRI on violation to law 48/1982. Reviewing EIAs.
- Ministry of Public Sector Enterprises (MoPSE): Following up on pollution abatement projects in publicly owned industries.

In 2004 (with Presidential Decree 135/2004 5.1), the Government of Egypt established the public sector Holding Company for Water and Wastewater (HCWW), which unified the various public sector water and sanitation companies across Egypt. At the time, the existing water and wastewater companies, as well as the existing public authorities in charge of water supply and sanitation, were all transformed into Affiliated Companies (ACs) of the HCWW. According to the Presidential Decree that created the HCWW, the companyôs mission is to purify, desalinate, sell and distribute drinking water; and to collect, treat, and safely dispose of wastewater. HCWW also has responsibility for extending drinking water to villages, and maintaining, renovating, and replacing drinking water and wastewater collection systems. The HCWW owns all water and sanitation infrastructure in Egypt and currently has 26 ACs that oversee operation and maintenance of water and sanitation infrastructure.

Responsibility for the creation of water and sanitation infrastructure lies with the National Organization for Potable Water and Sanitary Drainage (NOPWASD) which is responsible for the investments of all water and wastewater sector in all the governorates (except Cairo and Alexandria) and the Cairo and Alexandria Potable Water Organization (CAPW) which is responsible for the investments in the water and wastewater sector exclusively in the Greater Cairo and Alexandria governorates.

In 2006 the Egyptian Water and Wastewater Regulatory Agency (EWRA) was created with the role of supervising, reviewing and monitoring all water and wastewater sector activities.
Finally, the Ministry of Housing, Utilities, and Urban Communities (MHUUC) has the overall responsibility for the development and improvement of the sector and the sector institutions.

With regard to the legal framework, there are a number of laws aimed at protecting the environment, but it is noted that enforcement of these laws is not always effective. National environmental requirements are defined in Egyptian Law 4/1994 and its executive regulations (ERs) as amended by Law 9/2009 and Decree 1095/2011. The law dictates that Environmental Impact Assessment (EIA) studies are mandatory for both new Infrastructure projects and/or expansion of existing projects as a part of the licensing procedure. Guidelines of principles and procedures for Environmental Impact

Assessment were issued by the Egyptian Environmental Affairs Agency (EEAA) in 1996 and amended in 2009. The approach adopted in the EEAA 2009 EIA Guidelines for the classification of projects, is, overall, considered comparable with international standards and stipulates that increasing levels of detail are required in environmental impact assessments, depending on the severity of potential impacts.

Further legislation that is applicable in Egypt and must be considered in planning any future wastewater projects is summarized below.

Ministerial Decree 214/1997 Egyptian Sludge Regulations 5.8
The decree provides a definition of sludge according to wastewater treatment and refers to US Environmental Protection Agency (EPA) criteria as the basis for determining safe use without referring to any particular standards. It provides recommendations for the periodic follow up and analysis to prevent build-up of heavy metals and sets limits for heavy metal content in sludge.

Law 93/1962 for Discharge of Wastewaters
Law 93/1962 regulates the disposal of wastewater to sewerage networks. The law specifies the procedures to be followed for establishing sewerage networks, house connections, licensing procedures for connecting different establishments to the sewerage system and designates the responsibilities for sampling and analysis. A summary of the relevant articles is provided below:

- Sewers are to be installed in public roads or private roads which are open for general traffic.
- Buildings located along a road in which there is a public sewer should be connected to the sewer.
- Establishments that discharge wastewaters with high contents of solids (such as bakeries, mills, etc), shall install settlement chambers prior to discharging wastewater to the sewer. Establishments that discharge high loads of oils and fats in their wastewaters (e.g. car parks, services stations, etc.) shall install oil separators prior discharging the wastewater to the sewers. It is prohibited to dilute wastewaters.
- Wastewaters should comply with the standards indicated in the Table 11, before it may be discharged to public sewers.

Problem analysis - Generally, the poor coverage of wastewater collection and treatment facilities is attributed to a number of factors, including but not limited to lack of funds, lack of knowledge of low-cost wastewater treatment processes and economic benefits of treated wastewater reuse, together with the tendency among decision-makers to accept the status quo, the continued discharge of untreated wastewater into the environment. Understanding these inhibitory factors is critical for the planning, design and implementation of an effective wastewater management system. However, studies on the exploration of these factors in relation to wastewater treatment plants in developing countries are limited. This limits the range of options for optimizing the performance of existing wastewater treatment systems.

LEBANON - WASTEWATER TREATMENT IN COASTAL AREAS
In 2016, Lebanon prepared its second National Action Plan (NAP) with the purpose of translating into national actions the Strategic Action Programme for the Protection of the Mediterranean Sea from Land-based Pollution (SAP-MED), and of responding to the Barcelona Convention and the related Protocols. The plan reiterated Lebanonôs commitment to the Barcelona Convention and charted the roadmap for enhancing compliance. A Programme of Measures (PoM) was proposed under this NAP, combining priority technical measures with their relevant legal, institutional and economic measures. As a result, six projects were proposed, several of which target the rehabilitation and expansion of the sewer networks and industrial wastewater. The hotspots identified in the NAP are given in Figure 2 below.

Annual water demand in Lebanon has been estimated at 1,473 million m^3 in 2010 and is projected to increase to 1,499 million m^3 in 2020 and 1,703 million m^3 in 2030[1] while 2010 domestic wastewater generation was 248.2 million m^3/year with a BOD load of 119,348 tonnes/year[2]. Accounting for the population increase from the Syrian refugee crisis, the total national demand for water resources is estimated to have increased by 8-12% in the last 5 years, while national wastewater generation rates are assumed to have risen by 8 to 14%[3] over the same period.

According to a survey undertaken by the Central Administration for Statistics (CAS) in 2007, 65.7% of residences in Lebanon are connected to the public sanitation network, while 32.1% use sanitary pits and 2.1% are connected to open sanitation systems[4]. The highest connection rates are in the Governorate of Beirut and its Southern Suburbs while the lowest are in some areas in South Lebanon (see Table 1 below). Annual water demand in Lebanon has been estimated at 1,473 million m^3 in 2010 and is projected to increase to 1,499

Figure 2 Updated list of hotspots (Source: Lebanon NAP 2016)

Table 1 Means of Sanitation by Region (2007)

Region	Means of Sanitation (%age)			
	Public Sewer Network	Open Sewers Network	Sanitary Pits	Other
Beirut	99.6	0.4	0	0
Mount Lebanon (excluding Beirut Southern Suburbs)	64.1	0.6	35.3	0
Beirut Southern Suburbs	96.8	1.3	1.9	0
North Lebanon	67.3	4.8	27.3	0.6

[1] MOEW (2010), National Water Sector Strategy 2012
[2] World Bank (2011), Lebanon Country Environmental Analysis
[3] MOE/EU/UNDP (2014), Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions
[4] CAS (2008), Living Conditions of Households 2007

Bekaa	49.3	0.2	50.5	0
South Lebanon 1 (Saida, Jezzine, Hasbaya)	51.8	11.6	36.6	0
South Lebanon 2 (Nabatiyeh, Sour, Bint Jbeil, Marjaayoun)	26.5	0.7	72.8	0
Lebanon (total)	**65.7**	**2.1**	**32.1**	**0.1**

Source: CAS (2008), Living Conditions of Households 2007

In general, urban areas have high sewer connection rates while connection rates in rural areas are low. For example, Tripoli city has a connection rate of 91%, while the Miniyeh-Dinniyeh district rate is estimated at 71% and in rural Koura district, only 28.5% of households are connected. Most septic tanks in Lebanon are permeable or are deliberately drained to prevent overflow[5]. Despite the relatively high connection rate, much of the wastewater network is undersized and non-functional. This leads to raw sewage being directly discharged to land, rivers, and the sea[6].

This happens despite the large investments in wastewater treatment facilities by the donor community over the past decades. The treatment capacity installed does not reflect the amount of wastewater actually treated. In fact, several wastewater treatment plants (WWTP) receive only a small fraction of the sewage in their drainage area because of the fact that wastewater networks generally suffer from:

- limited penetration in peri-urban and rural areas;
- malfunction because of the age of the pipes or the limited maintenance;
- lack of household connections (i.e. even where networks exist, households are not connected); and
- Missing sections of the network leading to the WWTP (e.g. conveyors).

As a result of this, the national water strategy for 2012 estimates that Lebanon treats only about 8% of its wastewater, which is considered one of the lowest rates in the whole MENA region. This leaves 92% of raw sewage to infiltrate into groundwater and reach surface watercourses and the sea. In fact, wastewater contamination is considered one of the major environmental problems in Lebanon. It affects bathing water in the sea and rivers, drinking water quality in groundwater aquifers, and quality of agricultural produce due to irrigation with contaminated water. The cost of environmental degradation in 2005 resulting from the water and wastewater sector in Lebanon has been estimated at 1% of the GDP[7].

According to the MOE/UNDP assessment of 2014, the presence of refugees is also having a remarkable impact on water resources quality due to improper disposal of untreated wastewater. Humanitarian agencies providing health interventions have linked diarrheal disease outbreaks with the consumption of poor water quality. This was also confirmed in Zgharta district (northern Lebanon) where an average of 63% of the tested boreholes and municipality network outlets tested proved to be contaminated with fecal coliforms[8].

Box 3 Case Study: Tripoli and Surrounding Areas

Historical background and current conditions at the Tripoli wastewater treatment plant
About 70 years ago, a combined sanitation and storm water system was constructed for Tripoli Caza (district). In the early 1990s, some rehabilitation was undertaken through the National Emergency Recovery Programme implemented by the Council for Development and Reconstruction (CDR). More rehabilitation and extension works were done between 1997-2000, after which the Tripoli WWTP was constructed (2002-2009). The treatment plant was designed to accept a mean daily flow of 135,000 m3/day, based on 2010 estimates, such that in 2020 the plant will be expanded for an additional 43,000 m^3/day. The saturation flow was estimated to be 285,000 m3/day to be reached in the years 2040-2050. The design treatment process is activated sludge with tertiary treatment, such that the treated effluent is discharged through a sea outfall of

[5] UNDP/MOE (2011), State and Trends of the Lebanese Environment 2010
[6] CDR (2011), Update of the Environmental Impact Assessment for the Cultural Heritage and Urban Development Project
[7] World Bank (2011), Lebanon Country Environmental Analysis
[8] MOE/EU/UNDP (2014), Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions

1,600 mm. The effluent standard discharge is 25 mg/L for BOD and 35 mg/L for suspended solids. The resulting sludge would be digested, dewatered and incinerated. Pollution reduction for a fully operational plant is estimated at 94%. The original plan was that the plant would receive wastewater from Caza of Tripoli, Koura, Zgharta, and Miniyeh-Dinnieh (See Figure 2 above). Since construction of the treatment plant, major networks were executed in Tripoli, Koura, and on one of the collectors.

Despite all these initiatives, the treatment plant receives only around 26,000 m^3/day, which is not sufficient to operate the secondary treatment process. In fact, the WWTP currently operates only its preliminary treatment units (de-gritting and de-greasing) before discharging wastewater into the Mediterranean almost untreated. However, several projects are now underway to address this issue. These include sewer networks and collectors for areas in Tripoli, El Mina, and Koura. The total amount of additional wastewater from these activities is expected to be 44,000 m3/day. With funding secured from the Lebanese Government, the Islamic Development Bank, the European Union, and the Kuwait and Arab funds for development, construction works are planned to be completed by 2018-2019. Even with these investments, the WWTP will barely be able to operate its secondary treatment and it is unlikely it will operate tertiary treatment facilities. In addition, operation and maintenance of the wastewater system will face challenges that are applicable to all wastewater facilities in Lebanon, ranging from lack of continuous power supply to inadequate technical skills and know-how among the responsible entities.

Current environmental conditions
A study conducted in 2011 by CDR found that the quality of water in the Koura-Zgharta-Tripoli Miocene limestone aquifers were generally of adequate quality for domestic and agricultural use outside the Tripoli area. However, as part of the same study, samples collected from the Tripoli area exhibited high levels of nitrite, ammonium and hardness when compared to the Lebanese and World Health Organization (WHO) standards and thus were found unacceptable for domestic use. This was attributed to seawater intrusion and sewage contamination. As part of an environmental baseline survey conducted in 2008-2009 by CDR, two samples were taken upstream and downstream of the main River in Tripoli (Abu Ali River). Both samples presented high total and fecal coliform counts, as well as high BOD levels, exceeding the WHO permissible limits. The permissible fecal coliform count is exceeded for both Class I and Class II, making the water unsuitable for primary as well as secondary contact. The BOD values are expected to increase significantly during the olive oil pressing season with the discharge of olive mill wastewater from upstream villages[9].

Demographic and Socioeconomic Conditions in Lebanon
In 2010, Lebanonôs population was estimated around 4.2 million inhabitants, with a growth rate of about 1.5% for the last 30 years. Prior to the Syrian crisis, Lebanon had a population of 270,000 Palestinian refugees among other refugees and migrants. However, since 2011, Lebanonôs population has further increased to around 6 million, hosting an estimated 1.5 million refugees from Syria. Lebanon has a total area of 10,452 km^2 and is highly urbanized with more than 87% of its population living in urban areas and 64% living in large urban agglomerations (Beirut and its suburbs, Tripoli, Saida, Zahle, Tyre).

Although Lebanon is considered an upper middle-class country, extreme poverty has been estimated at 8%, with about 28% of the population considered poor. However, poverty rates vary extremely between and also within regions. For example, within the same governorate (North Lebanon), the districts of Akkar/Minnieh Dinniyeh and Tripoli city have the highest poverty rates in the country (63% and 53.7%, respectively), while the area of Koura/Zgharta/Batroun/Bsharre has a relatively low poverty rate at 24.7%[10].

Institutional setup and legal framework
Several government entities are responsible for wastewater management in Lebanon. These are the Ministry of Energy and Water (MOEW), Water Establishments (WE), Council for Development and Reconstruction (CDR), Ministry of Environment (MOE), Ministry of Public Health (MOPH) and municipalities.

- Ministry of Energy and Water: Responsible for the development of policy and planning in the water and wastewater sectors in Lebanon, MOEW is also in charge of setting water standards and

[9] CDR (2011), Update of the Environmental Impact Assessment for the Cultural Heritage and Urban Development Project
[10] UNDP (2008), Poverty, Growth and Income Distribution in Lebanon

monitoring all activities that deal with water management issues in cooperation with the Ministry of Environment.

- Water Establishments: In 2000, four (4) regional water establishments were created under the umbrella of MOEW. These are the Beirut and Mount Lebanon Water Establishment (BMLWE), the North Lebanon Water Establishment (NLWE), the South Lebanon Water Establishment (SLWE) and the Bekaa Water Establishment (BWE). In addition to responsibilities in the water sector, WEs are also responsible for the wastewater sector.
- Council for Development and Reconstruction: CDRôs roles include securing funding for projects, allocating funds to different government agencies, supervising the execution of plans and contributing to the rehabilitation of public institutions. In terms of wastewater management, CDRôs is responsible for securing funds for treatment plants and networks, issuing invitations for tenders and awarding and managing construction contracts.
- Ministry of Environment: MOEôs main objective is to safeguard natural and environmental resources in Lebanon. It is Lebanonôs focal point for the Mediterranean Pollution Assessment and Control Programme (MED POL). With regards to wastewater, the MOE is responsible for developing environmental protection policy and national standards in coordination with MOEW. MOE is in charge of setting standards for wastewater treatment facilities. In addition, MOE approves development projects, including construction of treatment plants and wastewater systems, through an EIA process in accordance with Decree 8633/2012.
- The Ministry of Public Health: MOPH monitors public health conditions, recommends actions for pollution prevention, operates water quality equipment, and proposes specifications in the wastewater network.
- Municipalities: While WE were designated by the 2000 Water Law (221) as the responsible agency for wastewater, there is some ambiguity on the issue of responsibility for sewerage maintenance, such that the municipal bylaws also indicate the condition and rehabilitation of the sewerage network remains within their mandate.

Although Lebanon has yet to adopt a wastewater tariff system, MOEW recently requested the pilot application of such a tariff in North Lebanon for the symbolic amount of 20,000 LBP (US$13.3) /year for households that are connected to the treatment plant and 10,000 LBP (US$6.7)/year for households that are not. This was applied only to households with a drinking water connection and meter, which is a relatively small percentage. The collected amount accrues to NLWE even if they are still not involved in managing wastewater infrastructure.

As for wastewater standards, MOE Decision 8/1 for 2001 sets the limits for the quality of wastewater discharged into the municipal sewage system, surface water, and the sea. Currently, there are no regulations for sludge and wastewater reuse.

Problem analysis

As described above, one of the main barriers leading to wastewater pollution in Lebanon is the lack of wastewater networks connected to treatment plants. Although some work is being undertaken by the government to address this problem, many areas still require major investments before they can be connected to treatment networks. The matter is further complicated by the lack of a clear mandate on operation and maintenance of a wastewater network once in place, as several government agencies are involved to various degrees in wastewater management in Lebanon, often with overlapping functions. The main agencies are the MOEW, CDR, and the WEs who lack the human and technical resources and legislative support to implement a coherent policy. In reality, municipalities are still in charge of the combined drainage and wastewater network. This situation makes it difficult to discern clear responsibilities in the sector and prevents functional monitoring and enforcement[11].

[11] World Bank (2011), Lebanon Country Environmental Analysis

Another major challenge is the lack of skill and technical resources at both the WE and municipalities for proper operation of wastewater networks. This is the case throughout the country, leading many of these agencies to subcontract the private sector in order to perform the necessary operation and maintenance activities (O&M). In some situations, when households use septic tanks instead of a public sewer network, private sector tankers are used to dispose of the sludge. These tankers are often unlicensed and dispose of their collected sludge into the environment (for example, a valley, a river, or the sea).

Due to their role within the household as main user of domestic water (combined with main provision role as well), women are generally more exposed to unsafe water that may be polluted by untreated sewage. Women are also far more in contact with food, specifically fruits and vegetables, that may be irrigated with raw sewage. Another growing concern is the increasing amounts of pesticides, hormones, medication, and harmful chemicals found in wastewater, which can have detrimental long- term health effects on women in particular: older women through osteoporosis and pregnant women through blue babies (intergenerational chemical burden) and miscarriages. Despite being much affected, women, due to prevalent sociocultural and traditional norms, are often underrepresented in the water and sanitation decision-making chain from planning to O&M as well as reuse[12].

One of the main reasons for the dire condition of the wastewater sector in Lebanon is the lack of financial resources due to extremely low or non-existent wastewater tariffs. The situation is exacerbated by the intermittent power supply, requiring the entity operating any equipment such as treatment plant or pumping station to pay significant amounts to operate their own generators. Therefore, the lack of income from providing wastewater services and additional costs needed for power generation remains a major obstacle for a properly functioning wastewater sector.

Once all the areas are connected to it, a treatment plant may face additional problems operating properly if industries in the area are discharging in the sewer network without any pre-treatment. This is especially the case if heavy metals exist in the discharged wastewater.

Regarding the reuse of treated wastewater for irrigation, the Government of Lebanon has shown interest but has yet to adopt standards for that purpose, even though a draft standard was developed with the support of the Food and Agriculture Organization over five years ago.

TUNISIA – TEN PRIORITY WWTPS

The National Sanitation Office (ONAS), as part of its five-year investment plan (2021-2025), plans to upgrade ten wastewater treatment plants (WWTPs) existing in different cities across the country and each servicing less than 100,000 population equivalents. Under the SAP-MED National Action Plan (NAP) of 2005 one of the key priority programmes (currently under implementation) was the extension and rehabilitation of 19 WWTP throughout the country. Nevertheless, the updated 2015 National Action Plan for Tunisia indicates clearly the need for an improvement of the quality of treated wastewater and the increase of the wastewater reuse (for example through managed aquifer recharge [MAR]). This calls for further investment in WWTPs in the country that are not performing in terms of treatment capacity or functioning beyond their design capacity. The upgrading and/or extension will enable these facilities to have sufficient capacity for at least another 20 years (2025-2045), comply with discharge and potential treated wastewater reuse quality regulations, and achieve increased energy efficiency. The facilities identified as being in need for investment in order to improve the effluent with the aim of enabling treated wastewater reuse and targeted for upgrade/extension are: El Kef, Teboursouk, Bouargoub, Jemmel, Sbeitla, Medenine, Tataouine, El Hamma, Kebili and Tozeur. These specific WWTPs were selected by ONAS based on their current condition that classified them as high priority. However, there are several other WWTPs in need of rehabilitation and can be integrated in the list of priorities at a later stage although further detailed preparatory studies are required.

Locations of the WWTPs - Among the 10 WWTPs, three are located in the north, two in the center

[12] Women for Water Partnership (2017), Waste(water) is a she

and five in the south of Tunisia (see Figure 3 below). In addition to their different geographic locations, these WWTPs belong to different hydrographic basins. Tunisia is divided into seven hydrographic basins and the selected WWTPs are located within five of them. Almost all surface waters circulating throughout these hydrographic basins drain into the Mediterranean Sea (with the exception of Chott El Gharsa). Some surface water will seep into the ground and may reach the sea trough subsurface flows. The hydrographic basins are listed below in order of socio-economic importance.

- The Mejerda hydrographic basin is the most sensitive as it hosts the city of Tunis and the Oued Mejerda (the most important river in Tunisia) and Sidi Salem Dam (the largest in Tunisia). The El Kef and Teboursouk WWTPs are situated on this hydrographic basin and particular attention should be given in order to protect water resources from pollution in this densely populated area.
- The Cap Bon and Meliane hydrographic basins can be considered as the second most sensitive area because is they are connected to the Gulf of Tunis. Over the years, the Gulf of Tunis has become so polluted that many de-pollution and rehabilitation programs have been initiated by the Tunisian Government with assistance provided by many international funding institutions (IFI).
- The Sbeitla and Jemmel WWTPs located in the center of Tunisia belong to different hydrographic basins. Sbeitla is situated on the Sebkhat Kelbia & Sidi El Hani hydrographic basin whereas Jemmel belongs to the Sahel and Leben hydrographic basin. The former discharges its surface waters in the Gulf of Hammamet and the second into the Gulf of Monastir. The Gulf of Monastir is currently undergoing a rehabilitation program to improve the quality of coastal waters and therefore protect the several coastal communities from environmental problems encountered over the last few decades because of neglect and poor environmental management.
- The remaining five WWTPs (Tozeur, Kebili, El Hamma, Tataouine and Medenine) are located in the South hydrographic basin. This hydrographic basin is situated in an arid region and most surface water is discharged into the Chott El Jerid or seep into the mostly sandy soil. During the infrequent heavy rainfalls, surface water will find its way to the Gulf of Gabès which is considered as one of the most polluted spots in the Mediterranean Sea mainly because of industrial and urban wastewater discharges. None of the target WWTPs is located in the Chott El Gharsa hydrographic basin which does not discharge into the Mediterranean Sea.

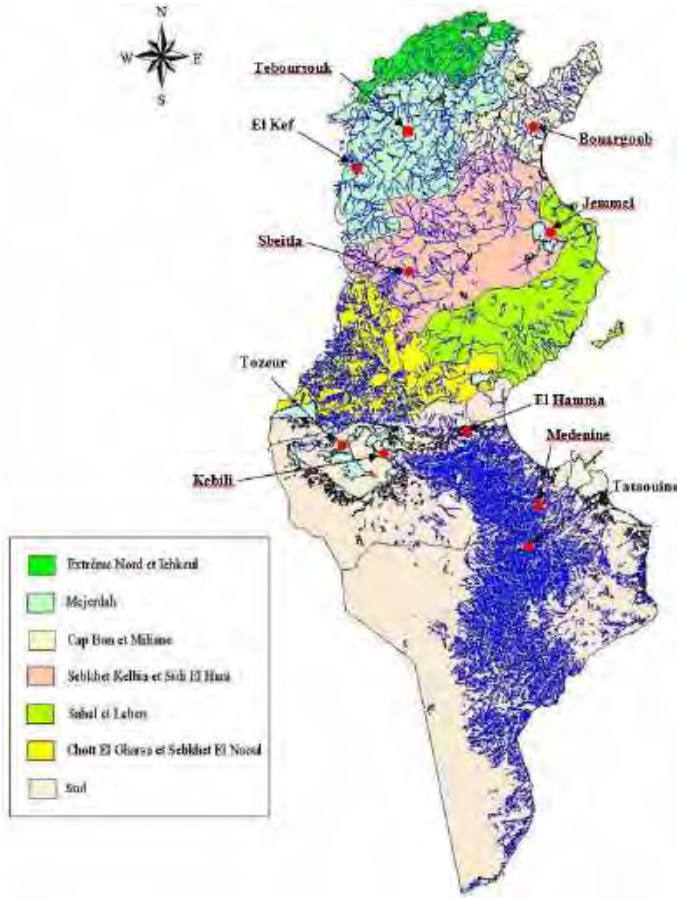


Figure 3 Locations of WWTP within the Hydrographic Basins of Tunisia

Demographic and Socioeconomic Conditions

According to the Indices of Regional Development (IDR) estimated in 2015 and updated in 2018 by the ITCEQ[13,] it can be observed that the delegations of Sbeitla, El Kef, Teboursouk, Tozeur and Tataouine located in the interior are disadvantaged compared to those located in coastal governorates (Bouragoub, Jammel, Monastir, El Hamma and Medenine).The data related to the regional development indices (IDR), the poverty rate and the population growth rate of the delegations of Sbeitla, El Kef and Téboursouk (see Table 3) clearly show regional disparities and inequality to access to the economic opportunities of their regions. The governorate of Kasserine where the delegation of Sbeitla is located is at the bottom of the scale.

The IDR indicator shows that the economic dimension is the most debilitating for these governorates. These constraints related to the business climate inevitably have an impact on job creation, poverty and the growth of the informal sector. In addition, the problem of unemployment which has worsened in recent years does not help these disadvantaged regions. In fact, the overall national unemployment rate went from 13.0% to 15.3% (2010 to 2017). The governorates concerned by the project most affected by this problem are Tataouine, Kebili, Kasserine, Gabès, and Tozeur, with an average unemployment rate of 18.8% in 2010 and exceeding the national average by about six percentage points with an average of 21.2% in 2017.

The rise in unemployment rate mainly affected the poorest regions of the country (North West, Central West, South West and South East). The elevated unemployment rates in the interior governorates and the concentration of private investment on the coastal areas have influenced the migration of the labor force (male and female). In fact, the location of industrial activities that require skilled and unskilled

[13] Institut Tunisien de la Compétitivité et des Etudes Quantitatives

labor has caused not only their high concentration along the coastal regions but also impoverishment of the interior regions from their human capital such as in the cases of Tataouine, Kebili, Sbeitla, and El Hamma.

In all 10 delegations, the female unemployment rate is very high, reaching an average of 46%, about twice the male unemployment rate (21%) for the active population and with a peak of 62% for the delegation of Kebili; approximately 3 times the national average rate in 2017[14] (see Table 2). In general, regardless of their level of education, women are the most vulnerable and are more affected by unemployment than men particularly in rural areas[15].

The connection rates to the ONAS sewerage network and to the SONEDE[16] drinking water supply network are taken into consideration in the determination of the IDR. The figures concerning the project areas show clear imbalances in connection rate to ONAS from 40% to 88%, and to SONEDE from 49% to 94%. This is mainly influenced by the current situation of the infrastructure particularly for the delegations of Kebili, Bouargoub; Sbeitla and Medenine and to a lesser degree Tataouine.

The unfavorable situations concerning mainly the delegations of Sbeitla, Tataouine, Kebili, Tozeur, El Kef, and Teboursouk (with negative growth rate) obviously have significant negative impacts on the living conditions of their citizens. The survey conducted by the National Statistics Institute (INS) in 2015 on household consumption revealed that "severe" poverty rate is estimated at 2.9% in 2015 compared to 6% recorded in 2010 and 7.4% in 2005. However, the poverty rate varies considerably according to the regions experiencing widening gaps over time, which is of great concern. Thus, Central West and North West still have the highest poverty rates, followed by the southern regions.

The level of regional development for the different delegations concerned by the project is carried out by establishing a typology of governorates according to the level of regional development through "Socio-Economic Development Indicator (SEDI)", a composite indicator developed by the Commissioner General for Regional Development (CGRD), based on 22 variables which include demography, education, employment, business structure, health housing conditions of the underlying population in a given territory (see Table 3). This indicator shows that 40% of the delegations concerned by the project are classified having very low to low socio-economic development, while another 40% with average socio-economic development.

[14] Estimated at 12.3% for male and 22.8% for female (INS 2017).
[15] *Statut général de la fonction publique, article 11 et le code de travail*
[16] Société Nationale d'Exploitation et de Distribution des Eaux

Table 2 Synthetic socio-economic data in the regions where the WWTPs are located

Delegation	Governorate	Geographical area	IDR	Poverty rate[17]	Population*			Connection rate (%)	
					Annual growth rate (%)	Unemployment rate[18] (%)		SONEDE	ONAS
						Male	Female		
El Kef	El kef	Northwest	0.40	34.2	0.46	20.0	38.4	91	77
Teboursouk	Beja		0.39	32.0	-0.95	11.4	29.9	73	66
Bouargoub	Nabeul	Northeast	0.57	7.4	1.06	13.1	35.7	83	35
Jemmel	Monastir	Centre east	0.64	8.3	1.70	26.7	59.0	94	85
Sbeitla	Kasserine	Canter west	0.16	32.8	0.79	15.2	29.2	49	28
Medenine	Medenine	Southeast	0.50	21.7	1.30	25.9	54.4	92	40
Tataouine	Tataouine		0.55	15.0	0.83	18.9	49.7	87	56
El Hamma	Gabès		0.53	15.9	1.65	22.4	54.4	92	67
Kebili	Kebili	Southwest	0.50	18.5	1.54	31.4	62.5	92	49
Tozeur	Tozeur		0.51	14.7	1.54	22.3	48.3	93	88

**The data related to population concern the delegations and not the governorates contrary to the IDR and Poverty rate*

Source: INS and ITCEQ

Table 3 Ranking governorates according to socio-economic development indicator (SEDI)

Delegation	Governorate	Regional division	Geographical division		Socio-economic development indicator (SEDI)[19]	Level of socio-economic development
			Interior	Coastal		
Sbeitla	Kasserine	Midwest	X		0.176	Very low
El Kef	El kef	Northwest	X		0.238	
Teboursouk	Beja		X		0.263	
Tataouine	Tataouine	Southeast	X		0.344	Low
El Hamma	Gabes	Southeast	X		0.428	Average
Kebili	Kebili	Southwest	X		0.449	
Medenine	Medenine	Southeast		X	0.476	
Tozeur	Tozeur	Southwest	X		0.489	
Bouargoub	Nabeul	Northeast		X	0.616	High
Jammel	Monastir	East center		X	0.686	

Operating Conditions and Performance of the WWTPs - All 10 proposed WWTPs are limited to secondary treatment and have been in operation for at least 10 years. The total volume of wastewater treated by all 10 WWTPs in 2017 is about 42,000 m^3/day (Table 4). During the same period six WWTPs combined (El Kef, Jemmel, Medenine, Tataouine, El Hamma and Tozeur) treated roughly 80 % of the total wastewater flow in 2017. Both Tataouine and El Hamma WWTPs are currently operating beyond their designed hydraulic capacities, while Sbeitla WWTP has almost reached its design capacity and Jemmel and Tozeur are close to reaching their design hydraulic capacities.

[17] INS, December 2016

[18] Consideration of the population with a university level (according to INS 2014 data)

[19] SEDI 2014

Table 4 Starting operation, wastewater flow rates and loadings for the WWTPs

WWTP	Year of operation	Wastewater flow rate (m^3/day)		BOD_5 loads (kg/day)	
		Design capacity	Actual (2017)	Design capacity	Actual (2017)
El Kef	1998	8,500	5,330	4,000	3,800
Teboursouk	2000	1,280	859	719	244
Bouargoub	2007	2,735	1,849	1,153	1,030
Jemmel	2000	6,700	5,682	3,127	3,371
Sbeitla	2004	3,870	3,750	1,810	1,824
Medenine	2000	8,870	4,920	3,500	3,917
Tataouine	1999	5,430	6,500	4,670*	7,662*
El Hamma	2004	4,061	5,341	2,030	2,090
Kebili	2002	3,130	2,310	1,338	1,053
Tozeur	2004	6,650	5,371	2,845	3,127
Total		51,225	41,912		

**Based on available data, COD instead of BOD_5*

In terms of pollutant loadings, six of the WWTPs have already reached their BOD_5 and/or COD loading capacities and need to be upgraded urgently, as they are currently operating beyond their design loading capacities. A further two of the WWTPs are close to reaching their design capacity.

Although the treated effluent discharged from certain of the WWTPs meets the national quality standards for Total Suspended Solids (TSS), Biological Oxygen Demand (BOD_5) and Chemical Oxygen Demand (COD) for discharge and reuse and their treatment efficiencies were reported to be as high as 97% there is no information on the bacteriological quality of the treated wastewaters is available. Given that these WWTPs are limited to secondary level treatment, it is expected that the bacteriological quality requirements are not met. Tertiary treatment seems to be necessary for at least these three well performing WWTPs given the vulnerability of the region where they are located to climate change and its deficiency in water resources. The least performing WWTPs (i.e. El Kef (North), Jemmel (Centre) and El Hamma (South) cause considerable negative impacts on the already scarce and stressed surface and ground water resources and require adequate investments to improve their performance.

A summary of the compliance of each if the targeted WWTPs with the Tunisian Standards as well as the treatment process of each one is presented in Table 5.

Table 5 Treatment Process, Capacities Used and Performance of The WWTPs

WWTP	Treatment Process*	Hydraulic Capacity used (%)	Organic Loading Capacity used (%)	Compliance with Tunisian Standards**
El Kef	CAS-EA	63	95	No (TSS, BOD_5, COD)
Teboursouk	OD	67	34	No (TSS, COD)
Bouargoub	OD	68	89	No (COD)
Jemmel	CAS	85	108	No (TSS, BOD_5, COD)
Sbeitla	OD	97	101	No (BOD_5, COD)
Medenine	CAS	55	112	Yes, conform
Tataouine	CAS	120	164	Yes, conform
El Hamma	OD	132	103	No (TSS, BOD_5, COD)
Kebili	OD	74	79	No (TSS, COD)
Tozeur	CAS	81	110	Yes, conform

**Treatment Process → CAS: Conventional Activated Sludge; EA: Extended Aeration; OD: Oxidation Ditch*
***Compliance with the Tunisian Standard NT106.02 (discharge of treated wastewater into hydraulic public domain) and NT106.03 (reuse of treated wastewater in agriculture); the limit values for both standards are as follows: TSS <=30 mg/l; BOD_5 <= 30 mg/l; COD <= 90 mg/l.*

Institutional Framework - The Tunisian institutional framework comprises those ministries directly

or indirectly involved in the management of water and wastewater sectors, the protection of public health and the preservation of the natural environment, and includes the following:

- Ministry of Local Affairs and the Environment (MALE);
- Ministry of Agriculture, Hydraulic Resources and Fisheries (MAHRF); and
- Ministry of Public Health (MPH).

However, the two main public institutions directly involved in the management of wastewater are the National Sanitation Company (ONAS) and the National Environmental Protection Agency (ANPE) that are affiliated to the MALE.

- The Ministry of Local affairs and the Environment (MALE)

The Ministry of Local affairs and the Environment is responsible, through its General Directorate of the environment and the quality of life (Direction Générale de lôEnvironnement et de la Qualité de Vie DGEQV), for:

- developing, in collaboration with other government and non-government organizations, emission standards related to the release of pollutants into the environment from diverse activities such as urban, industrial, agricultural, tourism, energy, etc. as well as to insure their proper implementation;
- approving investment projects that protect the environment and/or combat diverse types of pollutions and encourage their development and ensure their implementations;
- coordinating between national and international programs that combat and control pollution and protect the environment.

The following three agencies (ONAS, ANPE, APAL) are placed under the jurisdiction of the Ministry of Local Affairs and the Environment.

- National sanitation company (ONAS): is a public commercial and industrial entity which has legal and financial autonomy. Its mission is to ensure the management of the sanitation sector in Tunisia and plays a major role in the protection of water resources and the fight against all forms of water pollution. ONAS has five main missions:
  (i) Reduction or elimination of all sources of water pollution.
  (ii) Management, operation and maintenance, renewal and construction of sewage infrastructures for cities and towns within its jurisdiction.
  (iii) Promotion of the sale and reuse of treated wastewater and sewage sludge.
  (iv) Planning and implementation of sewerage projects.
  (v) Elaboration and implementation of integrated projects involving treatment of wastewater and runoffs discharged mainly from urban areas.

- National Environmental Protection Agency (ANPE): It intervenes in the approval of all environmental impact assessment (EIA) studies related to proposed new, rehabilitation or extension of projects. For the wastewater sector, the ANPE approves EIAs for the construction or rehabilitation of WWTPs and the control of discharges into the receiving environments. Its other main missions are:
  (i) Participating in the Government general policy development programs to combat pollution and protect the environmental.
  (ii) Proposing and providing to competent government authorities measures of specific or general nature intended to ensure the implementation of the government policy related to the preservation of the environment and strengthening environmental protection.
  (iii) Processing and evaluating applications for approval of investment projects intended to reduce or eliminate pollution and improve the environment in general; and
  (iv) Controlling and monitoring all sources of pollutants emissions particularly from waste treatment facilities.

- Coastline Protection and Development Agency (APAL): its main mission is to manage and promote programs in order to protect Tunisian coastlines (public maritime domain) and Sebkhats (humid zones) from all forms of environmental pollutions as well as initiate studies to rehabilitate sensitive wetlands.

- The Ministry of Agriculture, Hydraulic Resources and Fisheries (MARHF)

The main mission of the Ministry of Agriculture, Hydraulic Resources and Fisheries is to carry out, in coordination with the ministries concerned, the state policy in the field of agriculture and to oversee its promotion and development. The MARHF is responsible for ensuring the mobilization of all available natural resources and for accomplishing all basic infrastructure works aiming at the conservation of farmlands and the conservation of the essential elements for continuous agricultural development. Two main government organizations are indirectly involved in the wastewater sector:

- Water Supply and Distribution Company (SONEDE): its main mission is to supply drinking water with sufficient quantity and acceptable quality to Tunisian urban and rural areas. SONEDE is responsible for the operation, maintenance and renewal of facilities related to extracting, transporting, treating and distributing drinking water to all urban and rural populations.
- Regional Commission for Agricultural Development (CRDA): its main mission is to manage the conservation of natural resources, to promote water and soil conservation trough planning of catchment basins as well as protect and develop forestry resources. The regional CRDA coordinates with ONAS in order to distribute treated wastewater and sludge to farmers.

- The Ministry of Public Health (MPH)

The two relevant organizations placed under the jurisdiction of the MPH that have the legal authority to intervene indirectly in the management of the wastewater field are the Hygiene and Protection of the Environment Directorate (DHMPE) and the National Agency for the Sanitary and Environmental Control of Products (ANCSEP).

Legal Framework - The regulations governing wastewater management in Tunisia include several laws, decrees and orders dating from 1975, the date of promulgation of the organic law of municipalities. Among these texts, those that deal with effluent quality are:

- Law n° 75-16 of 31 March 1975, related to promulgation of the water code.
- Decree n°79-768 of 8 September 1979, regulating the conditions of the connection and effluents discharging in the public sewerage networks.
- Decree n° 85-56 of 2 January 1985, related to effluents discharge in the receiving environment.
- Decree n° 89-1047 of 28 July 1989, establishing the conditions for the reuse of treated wastewater in agriculture.
- Decree n°94-1885 of 12 September 1994, establishing the conditions of residential wastewater and other households in the sewerage network within ONAS jurisdiction.
- Order of the Ministry of the National Economy of 20 July 1989, related to the homologation of the Tunisian standard related to effluents discharges in the water milieu.
- Order of the Ministry of Agriculture of 21 June 1994, establishing the list of crops allowed to be irrigated with treated wastewater.

From the above legal framework, the following regulations are of particular importance:

- **Decree No. 85-56 of 2 January 1985 on the regulation of discharges into the receiving environment mainly states that:**

- (a) Discharges, regardless of their origin, must in no way alter the quality of the receiving environment;
- (b) Wastewater discharged into the receiving environment must comply with the discharge standards; and
- (c) All wastewaters that do not meet discharge standards in the receiving environment must be

discharged into public sewers, in accordance with the regulations governing the conditions for connection and discharge of effluents into the public sewerage system.

- **The Tunisian standard NT 106.02 (1989) approved by order of the Minister of National Economy on July 20, 1989:**

- defines the chemical and microbiological quality of the effluents before discharge according to three types of receiving environment: (a) maritime public domain (Mediterranean), (b) hydraulic public domain (lake, pond, rivers and wadis), and (c) and public pipelines (ONAS network).
- Sets uniform limit values irrespective of the source and the flow of the effluents, and without taking into account the sensitivity of the receiving environment.
- Sets the dosing and analysis method for each parameter indicated.

It is noted that the limit values adopted for discharge into the public hydraulic domain are much more stringent than those adopted for the marine environment. The NT 106.02 standard will be replaced by a Decree dated 26 of March 2018 that sets new limit values for the discharge of effluents into receiving environments.

- **Standard NT 106.03 is directly related to Decree No. 89-1047 of 28 July 1989 on the conditions of use of treated wastewater for agricultural purposes. This decree defines in particular:**

- The conditions of use of treated wastewater, with the need for prior authorization issued by the Ministry of Agriculture, with the agreement of the Ministry of Health and the ANPE.
- The need for pre-treatment of wastewater before any agricultural use.
- The frequencies of analysis of physicochemical and microbiological parameters of treated wastewater.
- the prohibition of using treated wastewater to irrigate vegetables and products that can be consumed raw.
- The obligation to control the biological and physicochemical quality of products irrigated by treated wastewater.

- Standard NT 106.20 (2002): Fertilizing organic matter - sludge from urban wastewater treatment plants. This standard defines the chemical and bacteriological qualities of the sludge produced from urban wastewater treatment plants that can be applied on agriculture lands and used as fertilizers.

In addition, Tunisia has signed and ratified several conventions and protocols at the international level, among them:

- Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, adopted in Barcelona on 16 February 1976 (ratified by Law No. 77-29 of 25 May 1977 and amended by Law No. 98-15 of February 23, 1998).
- Protocol concerning the protection of the Mediterranean Sea against pollution from land-based sources and activities (amended by Law No. 98-15 of 23 February 1998);
- United Nations Convention on the Law of the Sea, adopted at Montego Bay on December 10, 1982 (ratified by Law No. 85-6 of February 22, 1985);
- Protocol Concerning Specially Protected Areas of the Mediterranean - (ratified by Law No. 83 - 44 of 22 April 1983 - JORT No. 32 of 26 April 1983, p.1127)
- The Convention for the Protection of the Mediterranean Sea Against Pollution (Barcelona Convention) was adopted on 16 February 1976 by the Conference of Plenipotentiaries of the Coastal States of the Mediterranean Region for the Protection of the Mediterranean Sea, held in Barcelona, in conjunction with two Protocols addressing the prevention of pollution by dumping from ships and aircraft and cooperation in combating pollution in cases of emergency.

Environmental impacts - All ten WWTPs discharge their treated wastewater (WW) in creeks, Oueds

and Sebkhats (periodically flooded depression) located within different hydrographic basins draining eventually into the Mediterranean Sea. A small percentage of the treated WW is reused in agriculture.

It can be clearly seen from Table 6 that the WWTPs that produced the most negative impact on receiving water bodies in particular and on the environment in general are: Jemmel (Centre), El Hamma (South) and to a lesser extent El Kef (North). From 2007 to2017 these three WWTPs combined discharged beyond the permissible regulatory limits 105 tons of TSS, 122 tons of BOD and 408 tons of COD. The WWTPs that have the least impacts are: Kebili, Tozeur, Medenine and Tataouine. These observations are made taking into account the pollution assimilation capacities of the receiving water bodies, which are the limits values specified in the standards.

Table 6 Average annual pollution loadings exceedances in the receiving water bodies

WWTP	**Average pollution loadings beyond permissible limits (tons/year)**			**Receiving Water Body**
	TSS	**BOD_5**	**COD**	
El Kef	5.9	5.9	13.7	Oued Ettine
Teboursouk	1.3	-	-	Oued Khalled
Bouargoub	-	-	8.4	Oued Bouargoub
Jemmel	61.1	87.1	312.2	Oued El Maleh
Sbeitla	-	3.0	8.9	Oued Sbeitla
Medenine	-	-	-	Oued Hassi Medenine
Tataouine	-	-	-	Oued Tataouine
El Hamma	38.0	29.0	82.0	Sebkhat El Hamma
Kebili	-	-	-	Oued el Maleh (Chott El Jerid)
Tozeur	-	-	-	Chott El Jerid
Total	**106.2**	**124.9**	**425.3**	

The discharge of treated WW into inland receiving water bodies may create several nuisances and pollution problems even though compliance with standards is verified for TSS, BOD_5 and COD. Since most WWTPs operated by ONAS do not effectively remove nutrients, it is expected, and should be verified, that the concentrations of nitrogen and phosphorus compounds are high. This situation will create favorable conditions for algal growth and proliferation of insects in stagnant waters. The steady and continued discharge of treated WW into mostly dry receiving water bodies will cause accumulation of residual organic matter on the bottom or bed of the creek or Oued. Since Oueds are typically dry for part of the year, these water courses have a very limited dilution capacity and, as a result, a reduced capacity to assimilate and facilitate the natural degradation of organic matter. The climatic conditions, mostly dry and arid especially in the south of Tunisia, will cause the accelerated growth of microorganisms in the undisinfected wastewater. In anaerobic conditions odors will be released causing considerable nuisance to local inhabitants. It was reported that WWTPs located mainly in the center and south of Tunisia suffer from these unfavorable conditions. During the dry seasons, treated WW discharged into receiving environments will mostly either evaporate into the atmosphere or infiltrate into the ground and therefore soil and ground water will be polluted. If enough organic matter is present in the treated WW, over time the soil under the bed of the creek or Oued will be clogged. Wastewater will gradually flow carrying with it pollutants over long distances.

Insufficient wastewater and sludge reuse - In order to reduce the impacts of treated WW on receiving water bodies, it is common especially for regions suffering from the adverse effects of climate change and water shortage, to implement programs of wastewater reuse. Half of the proposed WWTPs allow their treated WW to be reused to irrigate agricultural lands with a combined total volume of 3,508 m^3/day representing only 9% of the total. This percentage value is low compared to the national Tunisian average, which stands at 20-25%. The national target for reuse of treated wastewater was set at more than 50% by 2015. Table 7 below provides a summary of percentage reclaimed wastewater reused on agricultural lands and the destinations of the sludge for the ten WWTPs.

Although the reclaimed WW may comply with the reuse standards (NT106.03) for physicochemical

parameters, the bacteriological quality may not be assured. So it is important to note that treated wastewater does not meet in general the national standard for the bacteriological parameter since no tertiary treatment is applied. Unfortunately, this practice will certainly expose users and particularly farmers to health risks. Therefore, it is mandatory to incorporate a tertiary treatment to the general treatment process in order to justify the increase in the use of treated wastewater in agriculture and reach the national target of at least 50%.

Moreover, although no reliable data is available on the quantities of sludge produced by the WWTPs or their compositions, all WWTPs presently use drying beds to reduce the water content, and then most of them store the sludge onsite of their premises. El Kef, Teboursouk and Sbeitla WWTPs allow the sludge to be applied on agricultural lands since the quality was reported to comply with the Tunisian sludge standard NT106.20. Only Bouargoub and Jemmel WWTPs transport their sludge offsite to special dedicated landfills. It is estimated that the quantity of sludge (10-15% total solids) produced by WWTPs represent approximately 1-2% of the total volume of treated wastewater. Currently, ONAS is in the process of developing regional master plans for the management of sludge produced by all WWTPs in Tunisia.

Table 7 Summary of treated WW reused and produced sludge destination

WWTP	**Treated WW reused in agriculture (2017)**		**Sludge Destination**
	(m^3/day)	**Percentage**	
El Kef	0	0 %	Agriculture
Teboursouk	0	0 %	Agriculture
Bouargoub	0	0 %	Special Landfill
Jemmel	0	0 %	Special Landfill
Sbeitla	825	22 %	Agriculture
Medenine	246	5 %	Stored Onsite
Tataouine	1,300	20 %	Stored Onsite
El Hamma	1,068	20 %	Stored Onsite
Kebili	70	3 %	Stored Onsite
Tozeur	0	0 % 50 % (Prior to 2011)	Stored Onsite
Total	**3,508**	**9%**	

Problem Analysis - Many WWTPs in Tunisia suffer from the lack of human and financial resources to adequately operate and maintain the facilities. Lack of funds to hire skilled personnel and laborers, failing and poorly maintained essential equipment as well as industrial discharges are the main concerns raised. Industrial polluters discharging into the sewer systems such as municipal slaughterhouses and the auto service stations scattered around the cities are the main causes of poor performance of some of the WWTPs. Although it is required by law, the majority of industrial units have not yet installed preliminary or pretreatment units in order to reduce pollutants discharged into the sewerage collection network.

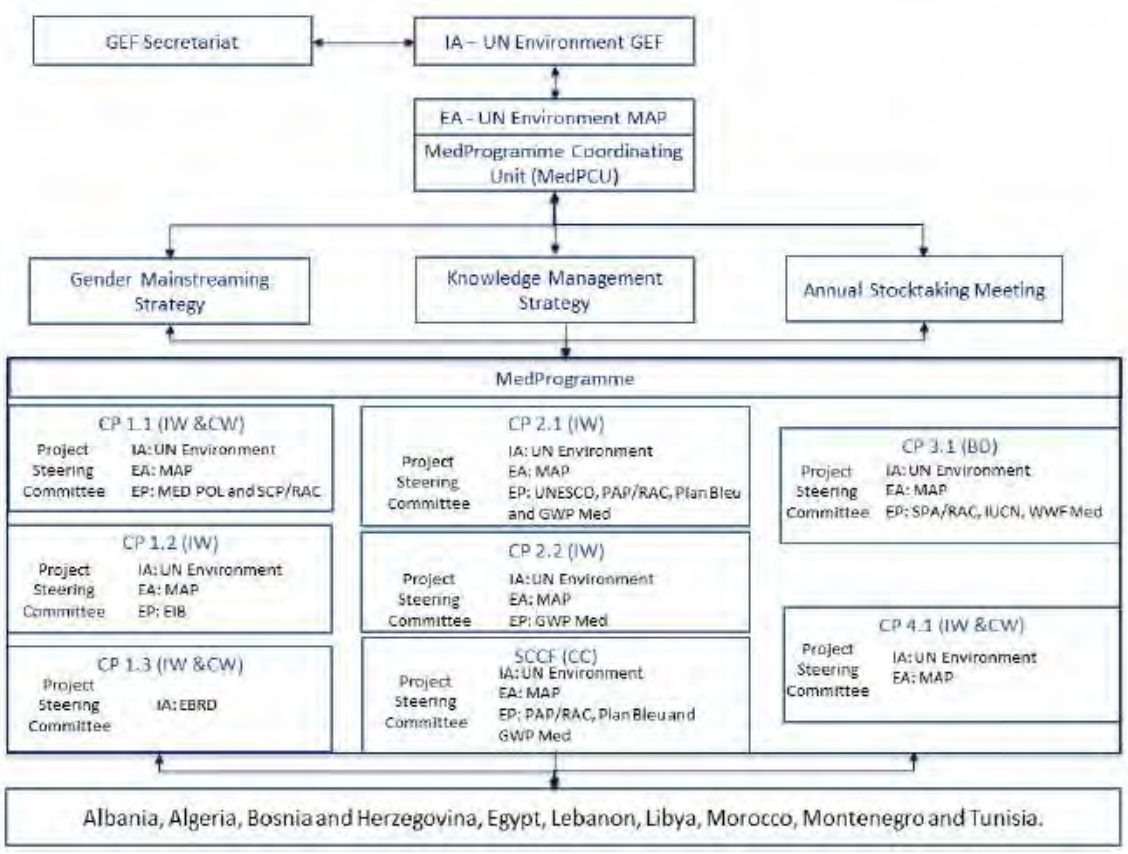


Figure 1: MedProgramme Structure

Table 1: MedProgramme Components, Child Projects and GEF Focal Areas

Mediterranean Sea Programme (MedProgramme)		
MedProgramme Component	**Child Project**	**GEF Focal Areas**
1. Reduction of Land Based Pollution in Priority Coastal Hotspots, and measuring progress to impacts.	1.1 “Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts”	IW and CW
	1.2 “Mediterranean Pollution Hot Spots Investment Project”	IW
	1.3 “Mediterranean Sea Finance for Water Systems and Clean Coasts (FINWACC)”	IW and CW
2. Enhancing Sustainability and Climate Resilience in the Coastal Zone.	2.1 “Mediterranean Coastal Zones Climate Resilience Water Security and Habitat Protection”	IW
	2.2 “Mediterranean Coastal Zones: Managing the Water-Food-Energy and Ecosystem NEXUS”	IW
	SCCF “Enhancing regional climate change adaptation in the Mediterranean Marine and Coastal Areas”	CC
3. Protecting Marine Biodiversity	3.1 “Management Support and Expansion of Marine Protected Areas in Libya”	BD

Mediterranean Sea Programme (MedProgramme)		
MedProgramme Component	**Child Project**	**GEF Focal Areas**
4. Knowledge Management and Programme Coordination	4.1 "Mediterranean Sea Large Marine Ecosystem Environment and Climate Regional Support Project"	IW and CW

Table 2 Overview of the findings of the 2005 TDA of the Mediterranean Sea LME

Mediterranean Sea LME - Transboundary Diagnostic Analysis		
Major Environmental Concerns	**Statement of the causes**	**Main Issues of Transboundary Concern**
Decline of Biodiversity	Pollution (sewage, oil, nutrients, etc.), invasive species, introduced species, land reclamation, river damming and flow modification, over-fishing, by-catch, and adverse effects of fishing gear and uses on marine habitats (e.g. bottom trawling), solid waste disposal at sea, uncontrolled tourist presence in ecologically sensitive areas, as well as inadequate public and stakeholders awareness, and inadequate or non-existent legislation and available enforcement means.	Land Based Pollution Degradation and Conversion of Critical Habitats: Sea Grass Meadows; Coastal Wetlands and Lagoons Overexploitation of Marine Living resources Alien Species Introduction
Decline in Sea Water Quality	Land based sources of marine pollution, both point and non-point, determine increasing trends in eutrophication and its related oxygen deficiency and bloom of nuisance species; presence of hot spots of pollution (125 identified by TDA) leading to decline in overall water quality, loss of coastal habitats and biodiversity, and human health problems.	Land Based Pollution: (i) Point Sources (excess nutrients, toxics and PTS). (ii) Non-Point Sources (mostly nutrients from agriculture, and sediments). Anthropogenic Pressures on Coastal Zones
Human Health Risks	Pollutants that degrade the ecosystem also present risks to human health, including heavy metals, organochlorines, pesticides, hydrocarbons, and the like, but also microbial and viral pollution. In addition, the response of the ecosystem to stress may induce toxicity, such as toxic dinoflagellates that arise from eutrophic conditions in some instances. This may affect human health in the region. Primary pathways for human health risks include ingestion of water or seafood products, contact with contaminated seawater (or in some cases beaches), and perhaps contact with contaminated seafood (for marine products workers).	Land Based Pollution Anthropogenic Pressures on Coastal Zones
Degradation of coastal ecosystems	Degradation and loss of coastal freshwater resources, and of coastal ecosystem services due to growing population pressure and unregulated costal development.	Anthropogenic Pressure on Coastal Zones Impacts of Climate Variability and Change

Box 1 Mediterranean Regional plan on BOD_5 from wastewater treatment plants (COP 16, 2009)

The establishment of wastewater treatment plants in all cities around the Mediterranean Sea with more than 100,000 inhabitants and appropriate outfalls and/or appropriate treatment plants for all cities with more than 10,000 inhabitants are amongst the targets of the Genoa Declaration (1985) approved by the Contracting Parties to the Barcelona Convention. In addition, the Contracting Parties adopted in 2009 Decision IG.19/7 "Regional Plan on the reduction of BOD_5 from urban wastewater in the framework of the implementation of Article 15 of the LBS Protocol". This Regional Plan shall apply to the collection, treatment and discharge of urban wastewater with the objective to protect the coastal and marine environment and health from the adverse effects of the direct and indirect wastewater discharges, in particular adverse effects on the oxygen content of the coastal and marine environment and eutrophication phenomena. It obliges the Mediterranean countries to ensure a sewage collection system for cities with more than 20,000 population equivalent and/or economic activities are sufficiently concentrated for urban wastewater to be collected and conducted to an urban wastewater treatment plant or to a final discharge point.

A number of measures have been defined:

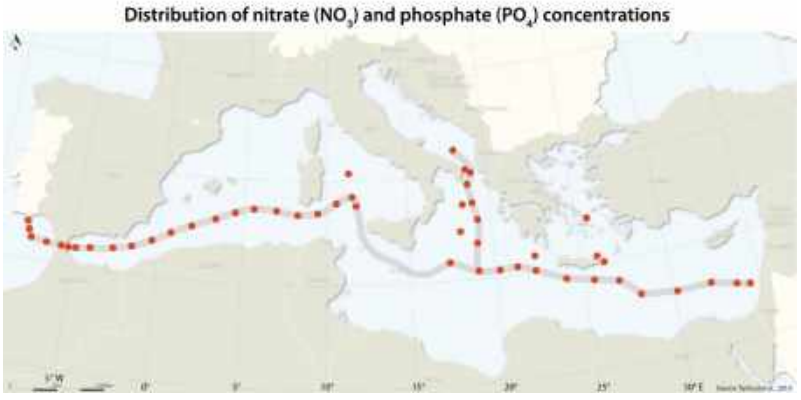
1. The Parties shall ensure that all agglomerations collect and treat their urban wastewaters before discharging them into the environment using collecting systems that satisfy defined requirements;

2. The Parties shall adopt National BOD_5 Emission Limit Values (ELVs) for urban wastewaters after treatment (i.e. maximum allowable concentration of BOD_5 to be finally discharged from WWTP to the receiving water environment);

3. The Parties shall ensure that the characteristics of collected and treated urban waste waters shall, before discharge in the environment, be in accordance to provisions on prescribed ELVs.

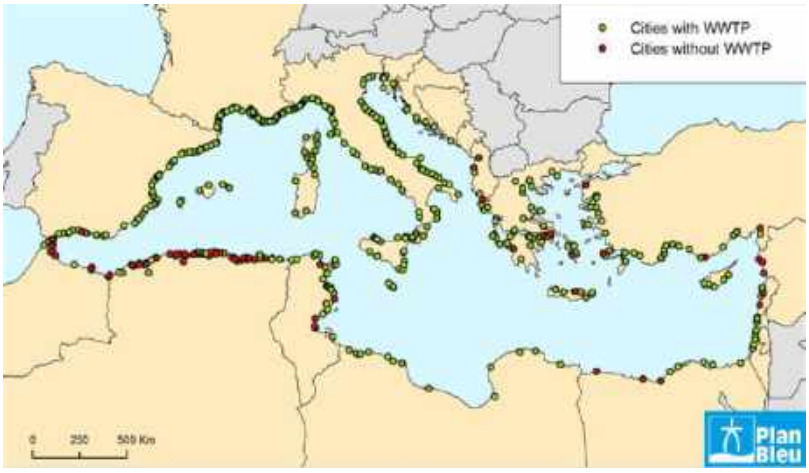
Box 2 The key findings of the 2017 Quality Status Report

In the Mediterranean area eutrophication is caused by both regional sources such as urban effluents, industrial discharges, and aquaculture activities as well as transboundary components such as agricultural runoffs, riverine outflows, and airborne nutrient deposition. The main coastal areas in the Mediterranean which are historically known to be influenced by natural and/or anthropogenic inputs of nutrients are the Alboran Sea, the Gulf of Lions, the Gulf of Gabès, the Adriatic Sea, the Northern Aegean and the SE Mediterranean Seas (Nile–Levantine).



The offshore waters of the Mediterranean have been characterized as extremely oligotrophic with a clear gradient towards the east (based on Turley 1999). The gradient is illustrated (figure on the left-) based on data collected during the Meteor. *M84/3 cruise (based on Tanhua et al. 2013).*

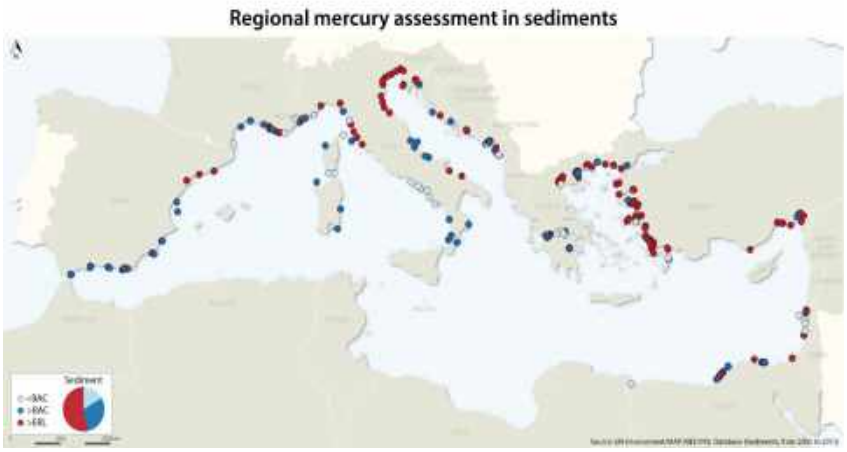
Wastewater treatment along the Mediterranean coasts in 2010



A significant improvement with development of wastewater treatment plants (WWTPs) was seen over the period 2004 – 2010.

In 2010, around one-fifth of the coastal cities with population above 100,000 inhabitants was without wastewater treatment. The share of cities with population between 10,000 and100,000 inhabitants without wastewater treatment was assessed at around one-quarter (illustration on the left).

Pollution assessment against environmental assessment criteria (EACs) was carried out for the first time in the framework of the 2017 QSR for concentration of key harmful contaminants measured in the relevant matrix (biota, sediment, seawater). Notwithstanding certain shortcomings (including the need to further improve and fine-tune assessment metrics and take into account sub-regional differences in the Mediterranean Sea), the assessment indicated generally acceptable levels of heavy metals assessed from bivalves and fish, with lead having values above threshold for 10% of stations.



The assessment highlighted differences between biota and coastal sediments conditions, whereas historical heavy metal pollution impacted the sediments close to known hotspots (both industrial and natural geological point sources). In terms of GES, the sediment assessment showed an impacted situation for the coastal benthic ecosystem, especially for mercury (HgT).

The main recommendations based on these assessment results are that measures and actions should focus on historically known hotspots associated to urban and industrial areas along coasts of the Mediterranean Sea, as well as to include sea-based sources, as these also represent important contributors to chemical pollution. Riverine inputs and coastal diffuse run-off have a significant role as well.

Sources: UN Environment/MAP Mediterranean 2017 Quality Status Repot and EEA/ UNEP MAP (2015) joint report "Horizon 2020 Mediterranean report: toward shared environmental information systems"

Table 3 Regional Plans adopted in the framework of the LBS Protocol setting out management standards for some of the key pollutants

Year of adoption	BC Conference of Parties (COP) Decision/ title of the Regional Plan
2009	Decision IG.19/7 Regional Plan on the reduction of BOD_5 from urban waste water.
	Decision IG.19/8 Regional Plan on the elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene.

	Decision IG.19/9 Regional Plan on the phasing out of DDT.
2012	Decision IG.20/8.1 Regional Plan on the reduction of inputs of Mercury.
	Decision IG.20/8.2 Regional Plan on the reduction of BOD_5 in the food sector.
	Decision IG.20/8.3 Regional Plan on the **phasing out of Hexabromodiphenyl ether, Heptabromodiphenyl ether, Tetrabromodiphenyl ether and Pentabromodiphenyl ether.** **Regional Plan on the phasing out of Lindane and Endosulfan.** **Regional Plan on the phasing out of Perfluorooctane sulfonyl acid, its salts and Perfluorooctane sulfonyl fluoride.** **Regional Plan on the elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, Pentachlorobenzene.**
2013	Decision IG.21/7 Regional Plan on Marine Litter Management in the Mediterranean.

Figure 2 Egyptian Hotspots (Source: Egypt National Action Plan for Land-Based Sources of Pollution in the Mediterranean Sea 2015)

Figure 3 Updated list of hotspots (Source: Lebanon NAP 2016)

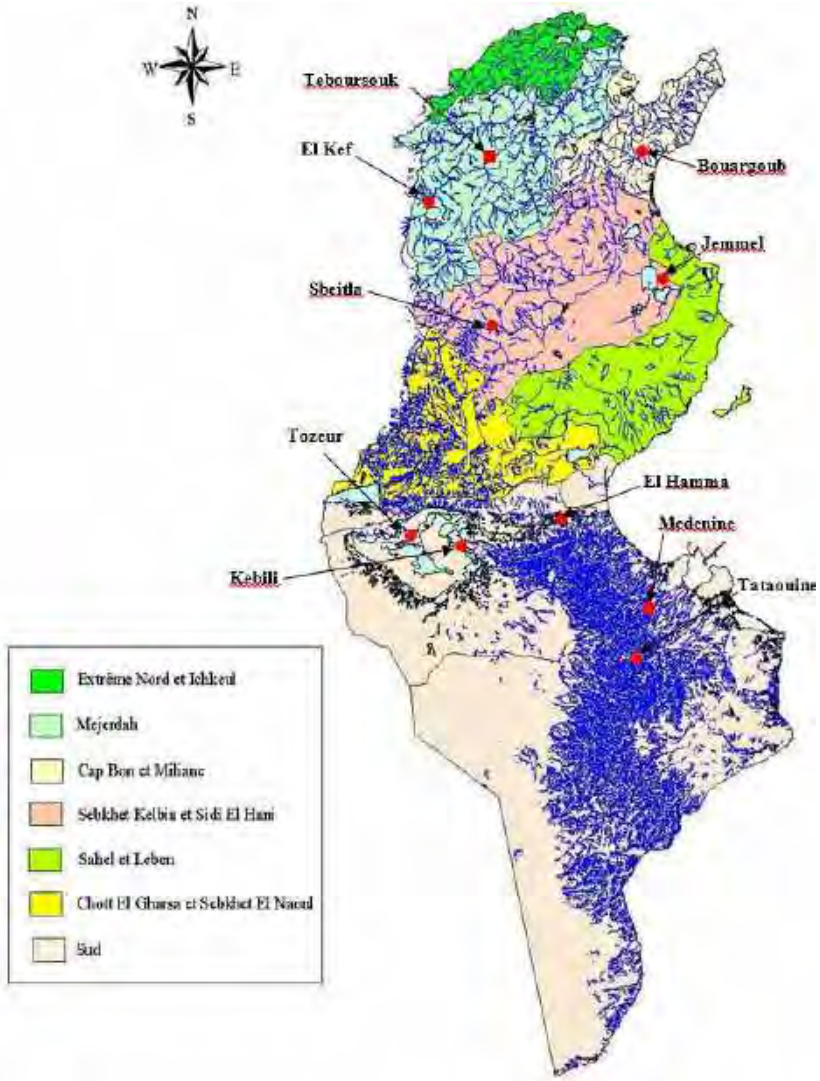


Figure 4 Locations of WWTP within the Hydrographic Basins of Tunisia

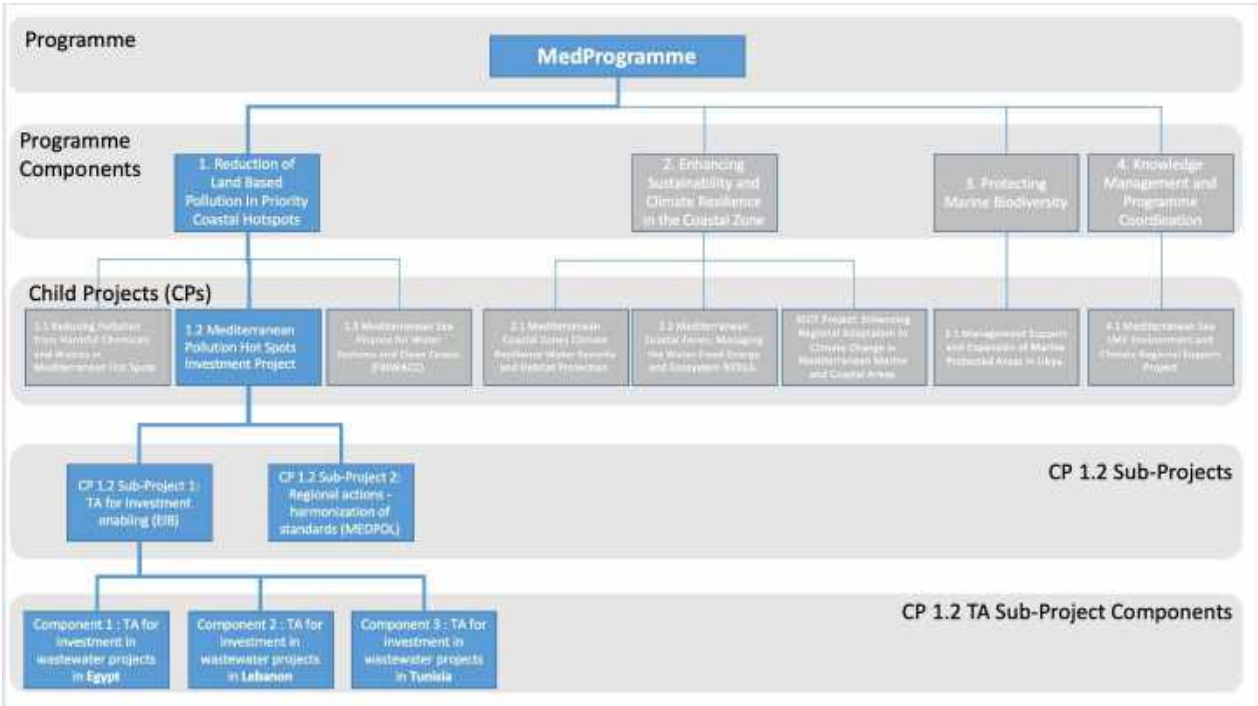
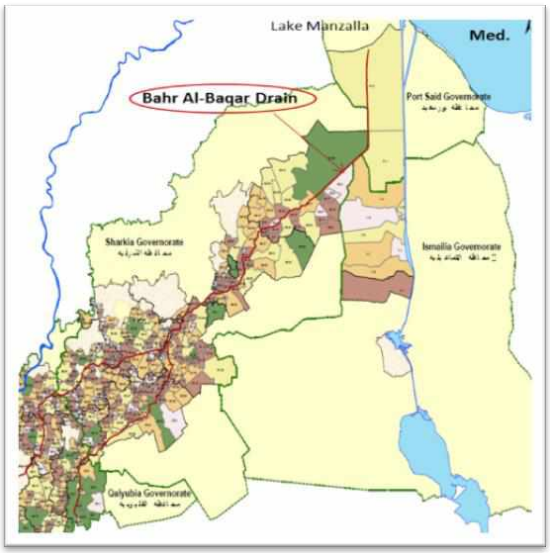


Figure 5 Structure and placement of Child Project 1.2 in the MedProgramme



Bahr Al Baqar Drain key figures

- *Length: 173 km*
- *Depth: 1-3 m*
- *Width: 30 - 70 m*
- *Agricultural Area Served: 317,000 ha*
- *Governorates Crossed: 3 - Sharkia, Qalyubia and Port Said*
- *Existing WWTP in the drain catchment: 29*
- *Drain water composition:*
  - *58% agricultural drainage*
  - *2% industrial discharges*
  - *40% domestic and commercial wastewater*
- *Discharges to Lake Manzala*

Figure 6 Bahr Al Baqar Drain location

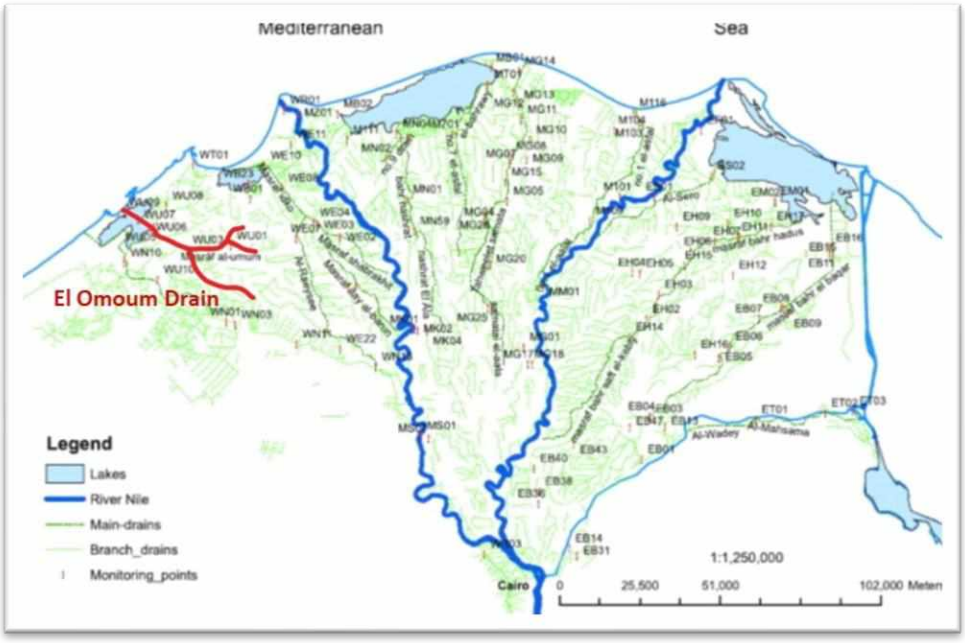


Figure 7 El Omoum Drain location

Table 4 Pollution and flow from major sources of El Mex Bay (tons/day)

Load (tonnes/day)	Em Omoum Drain	Tanneries	Alexandria Petroleum	Sodium Carbonates	Misr Chemical Industries
Flow (m^3/d)	7,900,000	3,150	1,200	65,000	3,930
TDS	26,414	79	130	181	7.67
TSS	144	37	2.4	0.7	0.23
BOD	150	9	2.2	0.05	0.04
COD	200	26	6	0.2	0.19

Source: Egyptian NAP (2015)

Table 5 Contribution of Child Project 1.2 to MedProgramme targets (Egypt: Alexandria and Nile Delta Coast)

MedProgramme Targets for Child Project 1.2	Specific contribution
Risk reduction in at least two coastal hotspots	Reduction in organic pollution loads discharged to (at least) 1 coastal priority hotspot in Egypt.
At least 4 WWTP to be built or rehabilitated	A number of WWTPs is expected to be built and/or rehabilitated. The exact number will be confirmed through the studies to be financed using the GEF funding.
At least 150,000 m^3/d of additional waste-water treated to secondary level	A series of investments in the extension of wastewater networks is envisaged under this component.
At least 20,000 m^3/d of additional treated wastewater reused	A series of investments in the construction of new and expansion of existing wastewater treatment plants is envisaged under this component.
At least 20,000 m^3/d of additional sludge digested	The studies to be performed for the potential new investments will assess the potential for sludge digestion and incorporate this in the investment where feasible.

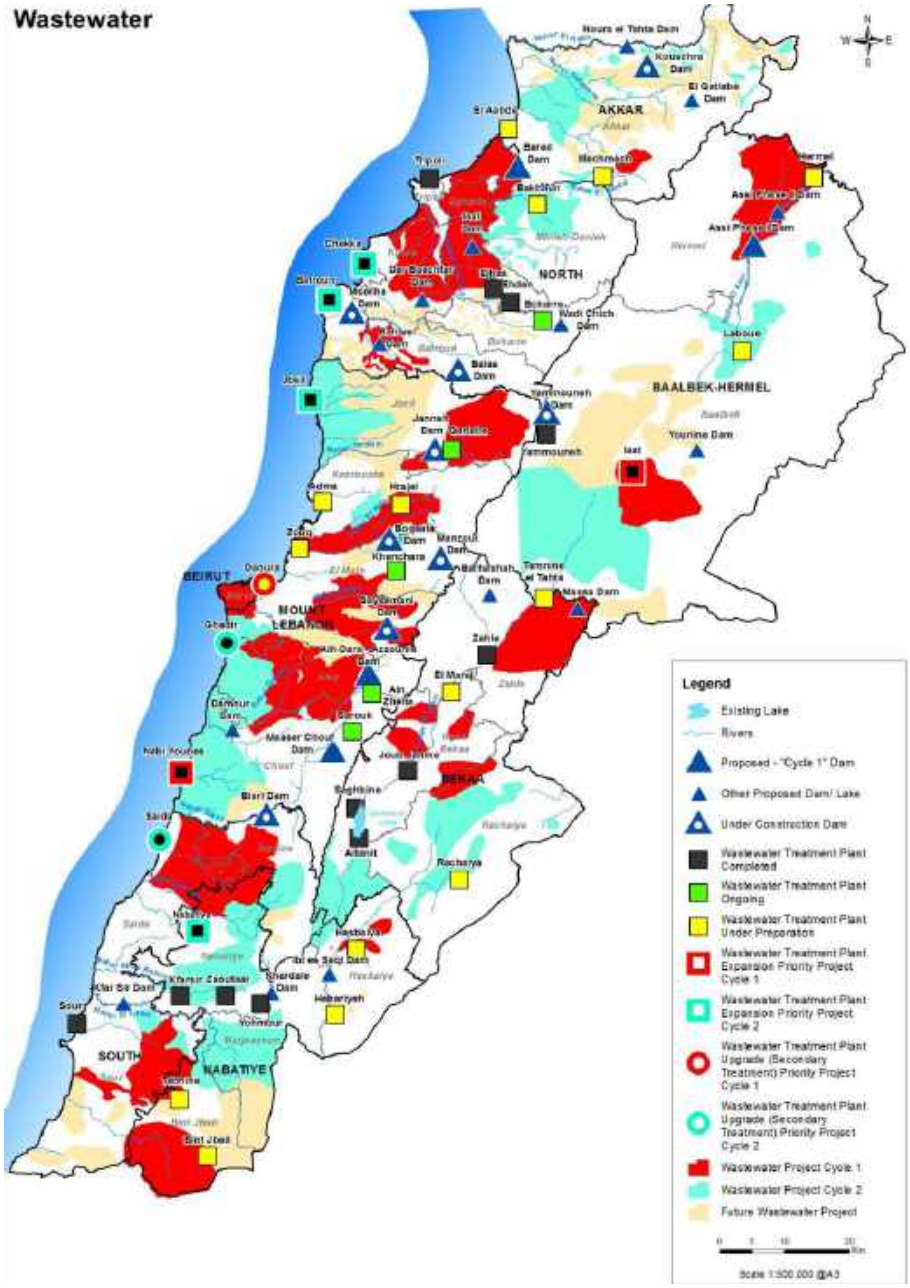


Figure 8 Wastewater Priority Projects (source: CIP, March 2018)

Table 6 Overview of main investments in cycles 1 and 2 of Lebanon's CIP

Investment	Region (District)	WWTP	Estimated cost (USD)	Cycle	Hotspot	Status
Completion of missing networks and collectors within Tripoli WWTP Service Area	North Lebanon (Tripoli)	Tripoli	100	1	Tripoli (priority hotspot)	Approved for financing
Completion of wastewater networks within El Aabde WWTP Service Area	Akkar (Akkar)	Al Aabade	60	2	Aabde (hotspot)	Concept stage
Completion of wastewater networks within Jbeil WWTP Service Area	Mount Lebanon (Jbeil)	Jbeil	40	2	Byblos (priority hotspot)	Concept stage
Networks for Halat and Nahr Ibrahim	Mount Lebanon (Jbeil)	Jbeil	9	2	Byblos (priority hotspot)	Concept stage
Expansion of sewer networks for coastal Chouf	Mount Lebanon (Chouf)	Nabi Younes	40	2	Jiyeh (hotspot)	Concept stage
Sour Phase III	South Lebanon (Sour)	Sour	50	1	Sour (potential hotspot)	Concept stage
Completion of Saida wastewater networks	South Lebanon (Saida)	Saida	25	1	Saida (priority hotspot)	Under preparation
Jbaa Wastewater System	Nabatiye (Nabatiye)	Saida	7.5	1	Saida (priority hotspot)	Concept stage
Nabatiye Part II (East Nabatiye) Wastewater System	Nabatiye (Nabatiye)	Nabatiye	50	2	n/a	Concept stage
Expansion of wastewater collection networks of West Bekaa (Phase 2)	Bekaa (West Bekaa)	Baalbek	27	1	n/a	Concept stage
		Total (USD)	408.5			

Table 7 Contribution of Child Project 1.2 to MedProgramme targets (Lebanon Coastal Areas)

Med Programme Targets for Child Project 1.2	Specific contribution
Risk reduction in at least two coastal hotspots	The project will contribute directly to reduction in organic pollution loads discharged to at least 1 coastal priority hot spot identified in the 2016 NAP for Lebanon.
At least 4 WWTP to be built or rehabilitated	n.a.
At least 150,000 m^3/d of additional waste-water treated to secondary level	A series of similar investments in the extension and upgrading of wastewater networks throughout the country is envisaged under this investment programme.
At least 20,000 m^3/d of additional treated wastewater reused	n.a.
At least 20,000 m^3/d of additional sludge digested	n.a.

Table 8 Additional capacity of the WWTPs in Tunisia

WWTP	Current Design Capacity	Estimated WW flow rate in 2025	New Design Capacity	Additional Capacity		Treatment process and organic loadings
	(m^3/day)	(m^3/day)	(m^3/day)	(m^3/day)	(%)	
El kef	8,500	5,904	8,500	0	0	Major upgrade
Teboursouk	1,280	1,239	2,190	910	71	Improvement
Bouargoub	2,735	2,561	4,340	1,605	59	Improvement
Jemmel*	6,700	7,201	11,000	4,300	64	Major upgrade
Sbeitla	3,870	5,027	8,220	4,350	112	Upgrade
Medenine	8,870	7,314	13,300	4,430	50	Upgrade
Tataouine	5,430	9,214	16,000	10,570	195	Major upgrade
El Hamma	4,061	6,578	9,670	5,609	138	Major upgrade
Kebili	3,130	3,570	6,720	3,590	115	Upgrade
Tozeur	6,650	6,836	10,500	3,850	58	Upgrade
Total	**51,225**	**55,444**	**90,440**	**39,214**	**77**	

** WWTPs that will exceed their hydraulic capacities before upgrading project*

Table 9 Additional WW and sludge reused (m^3/day)

WWTP	Estimated flow rate (2025)	Estimated WW reused (2025)	Estimated additional WW reused (2045)	Potential digested sludge reused (2045)
El Kef	5,904	0	4,250	128
Teboursouk	1,239	0	1,095	33
Bouargoub	2,561	0	2,170	65
Jemmel	7,201	0	5,500	165
Sbeitla	5,027	1,106	3,004	123
Medenine	7,314	366	6,284	200
Tataouine	9,214	1,843	6,157	240
El Hamma	6,578	1,315	3,520	145
Kebili	3,570	107	3,253	101
Tozeur	6,836	0	5,250	158
Total	**55,444**	**4,737**	**40,483**	**1,357**

Table 10 Contribution of Child Project 1.2 to MedProgramme targets (Target Area 3: Tunisia)

Med Programme Targets for Child Project 1.2	Specific contribution
Risk reduction in at least two coastal hotspots	The project contributes directly to reduction in organic pollution loads discharged to 2 coastal hot spots identified in the 2015 NAP for Tunisia, namely Bay of Monastir and Gulf of Gabès.
At least 4 WWTP to be built or rehabilitated	The project involves the rehabilitation of 10 WWTP of which 5 will see their design capacity extended by more than 4,000 m^3/d.
At least 150,000 m^3/d of additional waste-water treated to secondary level	The additional (secondary) treatment capacity installed at the end of the project will be 39,000 m^3/d.
At least 20,000 m^3/d of additional treated wastewater reused	The additional wastewater reused in 2045 is estimated at over 35,000 m^3/d
At least 20,000 m^3/d of additional sludge digested	The additional sludge digested by 2045 is estimated at over 1,300 m^3/d

Table 11 Contributions of Child Project 1.2 to the Agenda 2030 Process

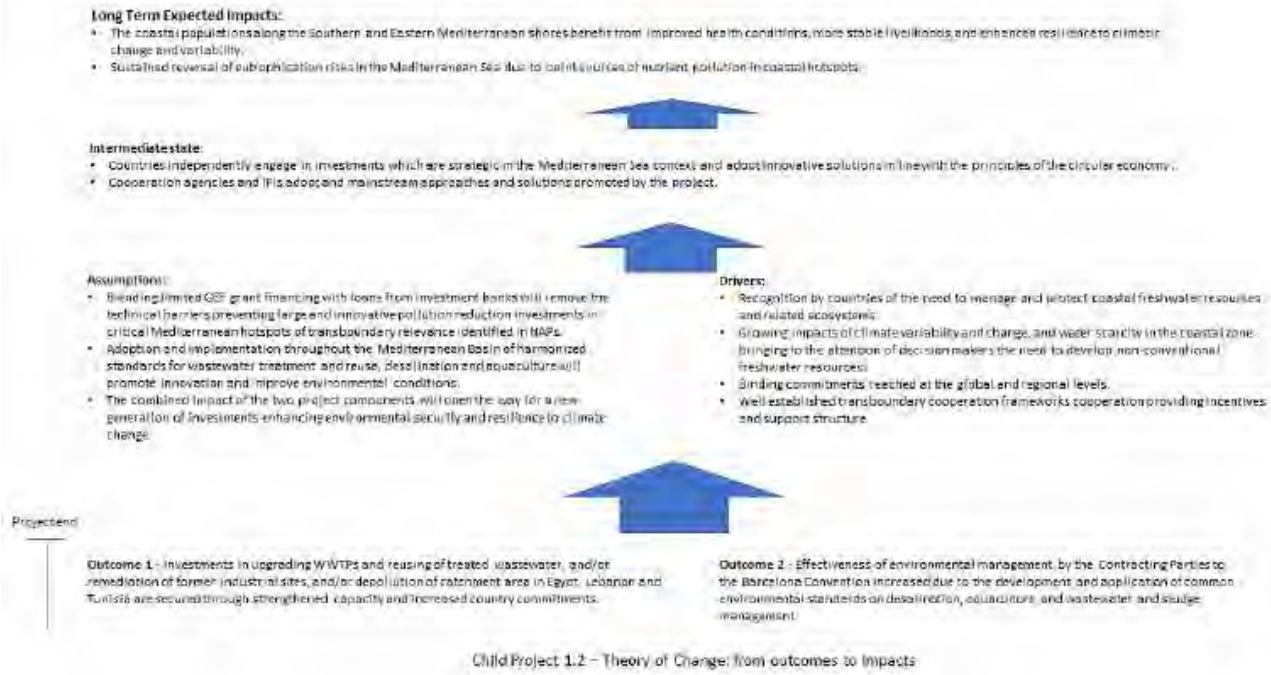
Sustainable Development Goals	Child Project 1.2 Contributions
1. End Poverty in all its forms everywhere	Targets 5, 1. a

5. Achieve gender equality and empower all women and girls	Target 5
6. Ensure availability and sustainable management of water and sanitation for all	Targets 1, 2, 3, 4, 5,6, 6.a, 6. b
8. Promote sustained, inclusive and sustainable economic growth, full productive employment and decent work for all	Targets 4, 9
12. Ensure sustainable consumption and production patterns	Target 2
13. Take urgent action to combat climate change and its impacts	Targets 1, 2, 3, 13. a
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Target 2

Table 12: Risk for Child Project 1.2

Risk	**Level of risk**	**Mitigation Measures**
Lack of political support	Low	To support sustained commitment from governments, the project execution will be largely responsibility of national experts and officials who will be in charge in all major decision points.
Governments' capacity to borrow to support the required investments	Low	This is linked to the risk above, but it relates to a different aspect. Even if countries recognize investments as a priority they might not have the capacity to borrow from IFIs because of their current budget/deficit situation. Should this risk materialize, the project will strive to expand the grant component of the investment by liaising with additional donors' active donors in the region.
Political instability	High	As stated in the MedProgramme Programme Framework Document, "some southern and eastern Mediterranean countries are going through a period of political volatility and social unrest that might negatively affect the Program's full implementation". In view of this, Child Project 1.2 will be implemented only in those countries were conditions are considered stable and/or rapidly improving. It has to be fully appreciated however, that the deteriorated social conditions and migratory fluxes caused by economic, environmental, or political factors affecting parts of the regions object of the project, call for urgent support from the international community, support of which the project represents a meaningful signal.
Total amount of co-financing loans not realized	Low	The risk of this occurring has been mitigated during project preparation by focusing on identifying sites/investments that are considered of the highest priority in the three countries. A quick transition to on the ground implementation will help maintaining government's full support.
Delays in the realization of investments	High	Full involvement of national officials in project execution will contribute to mitigate this risk, likely to occur.
Availability of relevant information	Medium	In some countries in the region (e.g. Egypt) access to data is often difficult and can cause considerably delays in the investment preparation phase. The extensive work on data collection done during project preparation, together with the largely national

		execution of the project, is expected to minimize this risk.



Child Project 1.2 – Theory of Change: from outcomes to impacts

Figure 9 Child Project 1.2 – Theory of Change: from outcomes to impacts

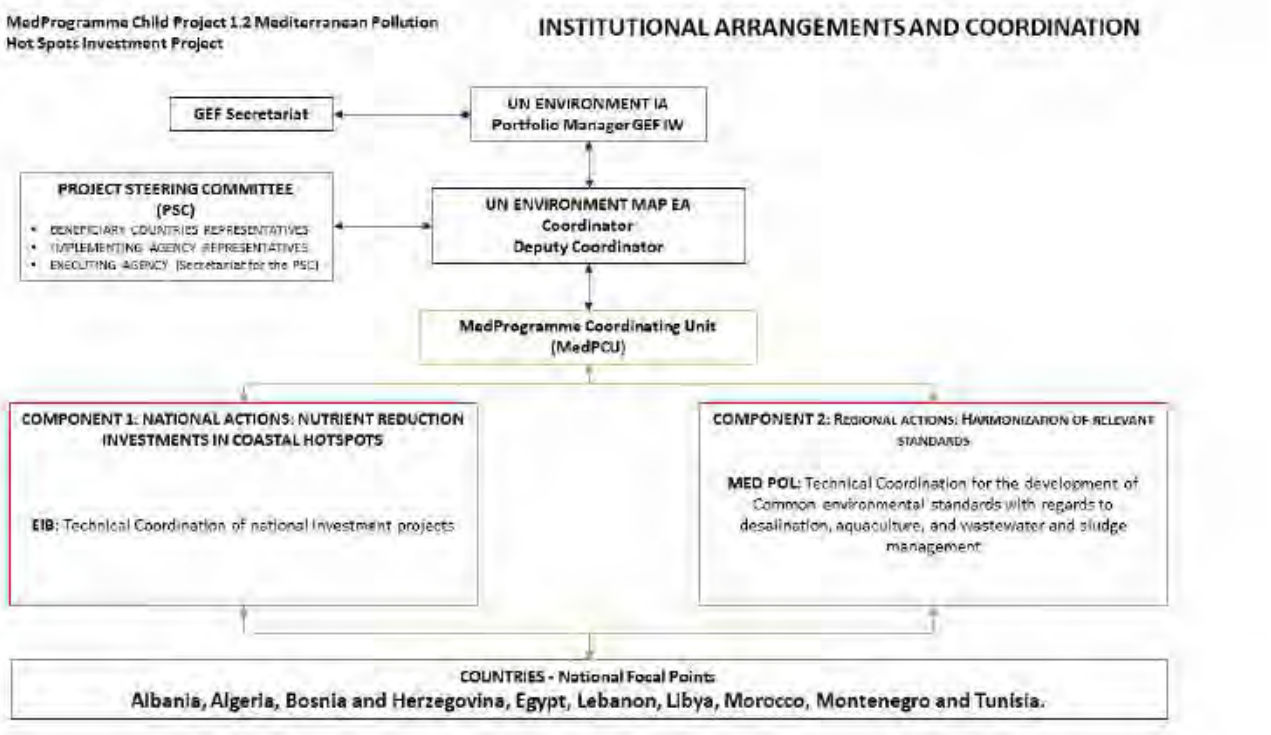


Figure 10 Institutional Arrangements and Coordination of Child Project 1.2

Annex L

UNEP Environmental, Social and Economic Review Note (ESERN)

I. Project Overview

Identification	*9717*
Project Title	*Mediterranean Pollution Hot Spots Investment Project.*
Managing Division	*Ecosystems Division*
Type/Location	*Regional*
Region	*Africa and Europe (Mediterranean)*
List Countries	*Albania, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia.*
Project Description	*In line with National Action Plans (NAPs) for the implementation of the SAP MED on land based pollution reduction, and consistent with priorities and coastal management strategies emerging from the results of MedPartnership, this project will include at major innovative investments, among the priorities listed below, in Mediterranean coastal areas at risk of groundwater over-exploitation, loss of coastal habitats and eutrophication. Besides the project will supply an additional constant source of water that can be used in agriculture and/or forestry and thus reducing the pressure on the already scarce water sources. GEF funding will support the selection and design of the investments, and the capacity building related to them.* *National Actions (EIB) in Egypt, Lebanon and Tunisis:* ***WWTP Extension and upgrade including treated wastewater reuse/reinjection (MAR).*** *Activities in this area will result in a reduction of organic pollution reaching the Mediterranean Sea and causing coastal ecosystem degradation. Expected interventions in this area will include:* • *Extension in capacity of WWTPs in areas with important population growth so that the increasing wastewater amount can be treated.* • *Analysis of demand and options for reuse of treated wastewater (e.g. irrigation) and sludge (e.g. digestion for energy production)* • *Definition of the technical options to achieve the required level of wastewater and sludge treatment in WWTPs to meet the requirements for reuse as well as minimize the operation costs.* ***Depollution catchment area.*** *Activities in this area will take a holistic approach to the depollution and water resources management at the level of catchments which are draining into the Mediterranean, in order to improve the human and environmental and health situation and reduce the contaminants loads entering the Mediterranean Sea. Expected interventions in this area will include:* • *Identification of point and diffuse sources of pollution at the catchment level to prioritise the environmental and health risks* • *Definition of technical options for investment in depollution infrastructure (WWTP, solid waste landfills etc.)* • *Definition of water resources management options with all*

	stakeholders at the watershed level to guarantee sustainable use of resources. *Regional Actions (UNEP/MAP) in Albania, Bosnia and Herzegovina, Egypt, Lebanon, Libya, Montenegro, Morocco and Tunisia:* *Development of common environmental standards with regards to desalination. Aquaculture, and waste water and sludge management and reuse prepared as an input for the deliberation of the Contracting Parties to the Barcelona Convention.*
Estimated duration of project:	*60*
Estimated cost of the project :	*5,000,000 USD*

II. Environmental Social and Economic Screening Determination

A. Summary of the Safeguard Risks Triggered

Safeguard Standard Triggered by the Project	Impact of Risk[1] (1-5)	Probability of Risk (1-5)	Significance of Risk (L, M, H)
SS 1: Biodiversity, natural habitat and Sustainable Management of Living Resources	1	2	M
SS 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes	1	2	M
SS 3: Safety of Dams	1	1	L
SS 4: Involuntary resettlement	1	1	L
SS 5: Indigenous peoples	1	1	L
SS 6: Labor and working conditions	1	1	L
SS 7: Cultural Heritage	1	1	L
SS 8: Gender equity	1	1	L
SS 9: Economic Sustainability	1	1	L
Additional Safeguard questions for projects seeking GCF-funding (Section IV)	1	1	L

[1] Refer to UNEP Environment, Social and Economic Sustainability (ESES): Implementation Guidance Note to assign values to the Impact of Risk and the Probability of Risk to determine the overall significance of Risk (Low, Moderate or High).

Annex L

B. ESE Screening Decision[2] (Refer to the UNEP ESES Framework (Chapter 2) and the UNEP's ESES Guidelines.)

Low risk ☐ Moderate risk ☒ High risk ☐ Additional information required ☐

C. Development of ESE Review Note and Screening Decision:

Prepared by: Name: Yegor Volovik_____ Date: March 26, 2018

Safeguard Advisor: Name: _____ Date: _____

Project Manager: Name: _____ Date: _____

D. Recommended further action from the Safeguard Advisor:

[2] **Low risk**: Negative impacts negligible: no further study or impact management required.
Moderate risk: Potential negative impacts, but less significant; few if any impacts irreversible; impact amenable to management using standard mitigation measures; limited environmental or social analysis may be required to develop a ESEMP. Straightforward application of good practice may be sufficient without additional study.
High risk: Potential for significant negative impacts, possibly irreversible, ESEA including a full impact assessment may be required, followed by an effective safeguard management plan.

Annex L

III. ESES Principle and Safeguard checklist

(Section III and IV should be retained in UNEP)

Precautionary Approach
The project will take precautionary measures even if some cause and effect relationships are not fully established scientifically and there is risk of causing harm to the people or to the environment.
Human Rights Principle
The project will make an effort to include any potentially affected stakeholders, in particular vulnerable and marginalized groups; from the decision making process that may affect them.
The project will respond to any significant concerns or disputes raised during the stakeholder engagement process.
The project will make an effort to avoid inequitable or discriminatory negative impacts on the quality of and access to resources or basic services, on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups.[3]

Screening checklist	Y/N/ Maybe	Comment
Safeguard Standard 1: Biodiversity, natural habitat and Sustainable Management of Living Resources		
Will the proposed project support directly or indirectly any activities that significantly convert or degrade biodiversity and habitat including modified habitat, natural habitat and critical natural habitat?	N	
Will the proposed project likely convert or degrade habitats that are legally protected?	N	
Will the proposed project likely convert or degrade habitats that are officially proposed for protection? (e.g.; National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA); etc.)	N	
Will the proposed project likely convert or degrade habitats that are identified by authoritative sources for their high conservation and biodiversity value?	N	
Will the proposed project likely convert or degrade habitats that are recognized- including by authoritative sources and /or the national and local government entity, as protected and conserved by	N	

[3] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to “women and men” or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

traditional local communities?		
Will the proposed project approach possibly not be legally permitted or inconsistent with any officially recognized management plans for the area?	N	
Will the proposed project activities result in soils deterioration and land degradation?	N	
Will the proposed project interventions cause any changes to the quality or quantity of water in rivers, ponds, lakes or other wetlands?	Maybe	The construction and rehabilitation of WWTP will in fact increase water quality in the receiving water bodies. However, this is based on the assumption that the counties will commit to take additional loans for the implementation of investment projects.
Will the proposed project possibly introduce or utilize any invasive alien species of flora and fauna, whether accidental or intentional?	N	
Safeguard Standard 2: Resource Efficiency, Pollution Prevention and Management of Chemicals and Wastes		
Will the proposed project likely result in the significant release of pollutants to air, water or soil?	N	
Will the proposed project likely consume or cause significant consumption of water, energy or other resources through its own footprint or through the boundary of influence of the activity?	Maybe	The construction and rehabilitation of WWTP, with possible availability of water reuse facilities and state of the art technologies will relax the water stress in the countries and reduce the energy consumption for the sanitation treatments. However, this is based on the assumption that the counties will commit to take additional loans for the implementation of investment projects.
Will the proposed project likely cause significant generation of Green House Gas (GHG) emissions during and/or after the project?	N	
Will the proposed project likely generate wastes, including hazardous waste that cannot be reused, recycled or disposed in an environmentally sound and safe manner?	N	
Will the proposed project use, cause the use of, or manage the use of, storage and disposal of hazardous chemicals, including pesticides?	N	
Will the proposed project involve the manufacturing, trade, release and/or use of hazardous materials subject to international action bans or phase-outs, such as DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Convention on Persistent Organic Pollutants or the Montreal Protocol?	N	

Will the proposed project require the procurement of chemical pesticides that is not a component of integrated pest management (IPM)[4] or integrated vector management (IVM)[5] approaches?	N	
Will the proposed project require inclusion of chemical pesticides that are included in IPM or IVM but high in human toxicity?	N	
Will the proposed project have difficulty in abiding to FAO's International Code of Conduct[6] in terms of handling, storage, application and disposal of pesticides?	N	
Will the proposed project potentially expose the public to hazardous materials and substances and pose potentially serious risk to human health and the environment?	N	
Safeguard Standard 3: Safety of Dams		
Will the proposed project involve constructing a new dam(s)?	N	
Will the proposed project involve rehabilitating an existing dam(s)?	N	
Will the proposed project activities involve dam safety operations?	N	
Safeguard Standard 4: Involuntary resettlement		
Will the proposed project likely involve full or partial physical displacement or relocation of people?	N	
Will the proposed project involve involuntary restrictions on land use that deny a community the use of resources to which they have traditional or recognizable use rights?	Maybe	The construction of new WWTP may happen on areas where communities are using resources to which they have traditional or recognizable use rights. In these cases, if any, a transparent criterion will be use to select the area for construction of the facilities.
Will the proposed project likely cause restrictions on access to land or use of resources that are sources of livelihood?	N	
Will the proposed project likely cause or involve temporary/permanent loss of land?	N	
Will the proposed project likely cause or involve economic displacements affecting their crops, businesses, income generation sources and assets?	N	

[4] "Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/ipm/en/

[5] "IVM is a rational decision-making process for the optimal use of resources for vector control. The approach seeks to improve the efficacy, cost-effectiveness, ecological soundness and sustainability of disease-vector control. The ultimate goal is to prevent the transmission of vector-borne diseases such as malaria, dengue, Japanese encephalitis, leishmaniasis, schistosomiasis and Chagas disease." (http://www.who.int/neglected_diseases/vector_ecology/ivm_concept/en/)

[6] Find more information from http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/CODE_2014Sep_ENG.pdf

Will the proposed project likely cause or involve forced eviction?	N	
Will the proposed project likely affect land tenure arrangements, including communal and/or customary/traditional land tenure patterns negatively?	N	
Safeguard Standard 5: Indigenous peoples[7]		
Will indigenous peoples be present in the proposed project area or area of influence?	N	
Will the proposed project be located on lands and territories claimed by indigenous peoples?	N	
Will the proposed project likely affect livelihoods of indigenous peoples negatively through affecting the rights, lands and territories claimed by them?	N	
Will the proposed project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	N	
Will the project negatively affect the development priorities of indigenous peoples defined by them?	N	
Will the project potentially affect the traditional livelihoods, physical and cultural survival of indigenous peoples?	N	
Will the project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	N	
Safeguard Standard 6: Labor and working conditions		
Will the proposed project involve the use of forced labor and child labor?	N	
Will the proposed project cause the increase of local or regional un-employment?	N	
Safeguard Standard 7: Cultural Heritage		
Will the proposed project potentially have negative impact on objects with historical, cultural, artistic, traditional or religious values and archeological sites that are internationally recognized or legally protected?	N	
Will the proposed project rely on or profit from tangible cultural heritage (e.g., tourism)?	N	
Will the proposed project involve land clearing or excavation with the possibility of encountering previously undetected tangible cultural heritage?	N	
Will the proposed project involve in land clearing or excavation?	N	
Safeguard Standard 8: Gender equity		
Will the proposed project likely have inequitable negative impacts on gender equality and/or the situation of women and girls?	N	On contrary, the successful execution of the project's activities may foster gender in balance in water access issues.
Will the proposed project potentially discriminate against women or other groups based on gender,	N	

[7] Refer to the Toolkit for the application of the UNEP Indigenous Peoples Policy Guidance for further information.

especially regarding participation in the design and implementation or access to opportunities and benefits?		
Will the proposed project have impacts that could negatively affect women's and men's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	N	
Safeguard Standard 9: Economic Sustainability		
Will the proposed project likely bring immediate or short-term net gain to the local communities or countries at the risk of generating long-term economic burden (e.g., agriculture for food vs. biofuel; mangrove vs. commercial shrimp farm in terms of fishing, forest products and protection, etc.)?	N	
Will the proposed project likely bring unequal economic benefits to a limited subset of the target group?	N	

IV. Additional Safeguard Questions for Projects seeking GCF-funding

Community Health, Safety, and Security			
Will there be potential risks and negative impacts to the health and safety of the Affected Communities during the project life-cycle?	N		
Will the proposed project involve design, construction, operation and decommissioning of the structural elements such as new buildings or structures?	N		
Will the proposed project involve constructing new buildings or structures that will be accessed by public?	N		
Will the proposed project possibly cause direct or indirect health-related risks and impacts to the Affected Communities due to the diminution or degradation of natural resources, and ecosystem services?	N		
Will the proposed project activities potentially cause community exposure to health issues such as water-born, water-based, water-related, vector-borne diseases, and communicable diseases?	N		
In case of an emergency event, will the project team, including partners, have the capacity to respond together with relevant local and national authorities?	N		
Will the proposed project need to retain workers to provide security to safeguard its personnel and property?	N		
Labor and Supply Chain			
Will UNEP or the implementing/executing partner(s) involve suppliers of goods and services who may have high risk of significant safety issues related to their own workers?	N		

GEF 7 Core Indicator Worksheet **Annex B**

Core Indicator 1	**Terrestrial protected areas created or under improved management for conservation and sustainable use**					***(Hectares)***
			Hectares (1.1+1.2)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 1.1	Terrestrial protected areas newly created					
Name of Protected Area	WDPA ID	IUCN category	Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				
		Sum				
Indicator 1.2	Terrestrial protected areas under improved management effectiveness					
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score		
				Baseline		Achieved
				Endorsement	MTR	TE
		(select)				
		(select)				
		Sum				
Core Indicator 2	**Marine protected areas created or under improved management for conservation and sustainable use**					***(Hectares)***
			Hectares (2.1+2.2)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	*TE*
Indicator 2.1	Marine protected areas newly created					
Name of Protected Area	WDPA ID	IUCN category	Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				
		Sum				
Indicator 2.2	Marine protected areas under improved management effectiveness					
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score (Scale 1-3)		
				Baseline		Achieved
				PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				
		Sum				
Core Indicator 3	**Area of land restored**					***(Hectares)***
			Hectares (3.1+3.2+3.3+3.4)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.1	Area of degraded agricultural land restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.2	Area of forest and forest land restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Indicator 3.3	Area of natural grass and shrublands restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.4	Area of wetlands (including estuaries, mangroves) restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 4	**Area of landscapes under improved practices (hectares; excluding protected areas)**					***(Hectares)***
			Hectares (4.1+4.2+4.3+4.4)			
			Expected		Expected	
			PIF stage	Endorsement	MTR	TE
Indicator 4.1	Area of landscapes under improved management to benefit biodiversity					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.2	Area of landscapes that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.3	Area of landscapes under sustainable land management in production systems					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.4	Area of High Conservation Value Forest (HCVF) loss avoided					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 5	**Area of marine habitat under improved practices to benefit biodiversity**					***(Hectares)***
Indicator 5.1	Number of fisheries that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 5.2	Number of large marine ecosystems (LMEs) with reduced pollution and hypoxial					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Core Indicator 6	**Greenhouse gas emission mitigated**					***(Tons)***
		Tons (6.1+6.2)				
		Entered		Entered		
		PIF stage	Endorsement	MTR	TE	
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
		Tons				
		Entered		Entered		
		PIF stage	Endorsement	MTR	TE	
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated Year					
Indicator 6.2	Emissions avoided					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated Year					
Indicator 6.3	Energy saved					
		MJ				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 6.4	Increase in installed renewable energy capacity per technology					
	Technology	Capacity (MW)				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
	(select)					
	(select)					
Core Indicator 7	**Number of shared water ecosystems (fresh or marine) under new or improved cooperative management**					***1***
Indicator 7.1	Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation					
	Shared water ecosystem	Rating (scale 1-4)				
		PIF stage	Endorsement	MTR	TE	
	Mediterranean LME		*4*			
Indicator 7.2	Level of Regional Legal Agreements and Regional Management Institutions to support its implementation					
	Shared water ecosystem	Rating (scale 1-4)				
		PIF stage	Endorsement	MTR	TE	
	Mediterranean LME		*4*			
Indicator 7.3	Level of National/Local reforms and active participation of Inter-Ministerial Committees					
	Shared water ecosystem	Rating (scale 1-4)				
		PIF stage	Endorsement	MTR	TE	
			1			
Indicator 7.4	Level of engagement in IWLEARN through participation and delivery of key products					
	Shared water ecosystem	Rating (scale 1-4)				
		Rating		Rating		
		PIF stage	Endorsement	MTR	TE	
			1			
Core	**Globally over-exploited fisheries Moved to more sustainable levels**					***(Tons)***

Indicator 8						
			Metric Tons			
			PIF stage	Endorsement	MTR	TE
Core Indicator 9	**Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products**					***(Tons)***
			Metric Tons (9.1+9.2+9.3)			
			Expected		Achieved	
			PIF stage	PIF stage	MTR	TE
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) and POPs containing materials and products removed or disposed					
POPs type			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
(select)	(select)	(select)				
(select)	(select)	(select)				
(select)	(select)	(select)				
Indicator 9.2	Quantity of mercury reduced					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.3	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.4	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					
		Technology	Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 10	**Reduction, avoidance of emissions of POPs to air from point and non-point sources**					***(Grams)***
Indicator 10.1	Number of countries with legislation and policy implemented to control emissions of POPs to air					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.3	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 11	**Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment**					***(Number)***

					Number Achieved	
					MTR	TE
				Female	*1,100*	
				Male	*1,100*	
				Total	*2,200*	

Instructions for unlocking/locking the Worksheet to allow adding rows in tables if necessary:

Go to File> Select Options > Select Quick Access Toolbar > Under Choose Command from, select All Commands> Scroll down until you find the Lock Icon > Click Add> Click Ok. You will then find your Lock icon installed atop your screen:

When you click on the icon, it would either lock or unlock the template.

GEF 7 TAXONOMY **Annex C**

Please identify the taxonomic information required in Part I, Item G by ticking the most relevant keywords/ topics/themes that best describe the project.

Level 1	Level 2	Level 3	Level 4
☒ **Influencing models**			
	☐ **Transform policy and regulatory environments**		
	☒ **Strengthen institutional capacity and decision-making**		
	☐ **Convene multi-stakeholder alliances**		
	☒ **Demonstrate innovative approaches**		
	☒ **Deploy innovative financial instruments**		
☒ **Stakeholders**			
	☐ **Indigenous Peoples**		
	☐ **Private Sector**		
		☐ Capital providers	
		☐ Financial intermediaries and market facilitators	
		☐ Large corporations	
		☐ SMEs	
		☐ Individuals/Entrepreneurs	
		☐ Non-Grant Pilot	
		☐ Project Reflow	
	☒ **Beneficiaries**		
	☒ **Local Communities**		
	☒ **Civil Society**		
		☒ Community Based Organization	
		☒ Non-Governmental Organization	
		☐ Academia	
		☐ Trade Unions and Workers Unions	
	☒ **Type of Engagement**		
		☐ Information Dissemination	
		☐ Partnership	
		☒ Consultation	
		☒ Participation	
	☒ **Communications**		
		☒ Awareness Raising	
		☐ Education	
		☒ Public Campaigns	
		☐ Behavior Change	
☒ **Capacity, Knowledge and Research**			
	☐ **Enabling Activities**		
	☒ **Capacity Development**		
	☒ **Knowledge Generation and Exchange**		
	☐ **Targeted Research**		
	☐ **Learning**		
		☐ Theory of Change	
		☐ Adaptive Management	
		☐ Indicators to Measure Change	
	☐ **Innovation**		
	☒ **Knowledge and Learning**		
		☒ Knowledge Management	

		☐Innovation	
		☒Capacity Development	
		☐Learning	
	☒**Stakeholder Engagement Plan**		
☒**Gender Equality**			
	☒**Gender Mainstreaming**		
		☐Beneficiaries	
		☐Women groups	
		☒Sex-disaggregated indicators	
		☒Gender-sensitive indicators	
	☒**Gender results areas**		
		☐Access and control over natural resources	
		☐Participation and leadership	
		☐Access to benefits and services	
		☒Capacity development	
		☒Awareness raising	
		☒Knowledge generation	
☒**Focal Areas/Theme**			
	☐**Integrated Programs**		
		☐Commodity Supply Chains ([1]Good Growth Partnership)	
			☐Sustainable Commodities Production
			☐Deforestation-free Sourcing
			☐Financial Screening Tools
			☐High Conservation Value Forests
			☐High Carbon Stocks Forests
			☐Soybean Supply Chain
			☐Oil Palm Supply Chain
			☐Beef Supply Chain
			☐Smallholder Farmers
			☐Adaptive Management
		☐Food Security in Sub-Sahara Africa	
			☐Resilience (climate and shocks)
			☐Sustainable Production Systems
			☐Agroecosystems
			☐Land and Soil Health
			☐Diversified Farming
			☐Integrated Land and Water Management
			☐Smallholder Farming
			☐Small and Medium Enterprises
			☐Crop Genetic Diversity
			☐Food Value Chains
			☐Gender Dimensions
			☐Multi-stakeholder Platforms
		☐Food Systems, Land Use and Restoration	
			☐Sustainable Food Systems
			☐Landscape Restoration
			☐Sustainable Commodity Production
			☐Comprehensive Land Use Planning
			☐Integrated Landscapes
			☐Food Value Chains
			☐Deforestation-free Sourcing
			☐Smallholder Farmers

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		☐ Sustainable Cities	
			☐ Integrated urban planning
			☐ Urban sustainability framework
			☐ Transport and Mobility
			☐ Buildings
			☐ Municipal waste management
			☐ Green space
			☐ Urban Biodiversity
			☐ Urban Food Systems
			☐ Energy efficiency
			☐ Municipal Financing
			☐ Global Platform for Sustainable Cities
			☐ Urban Resilience
	☐ **Biodiversity**		
		☐ Protected Areas and Landscapes	
			☐ Terrestrial Protected Areas
			☐ Coastal and Marine Protected Areas
			☐ Productive Landscapes
			☐ Productive Seascapes
			☐ Community Based Natural Resource Management
		☐ Mainstreaming	
			☐ Extractive Industries (oil, gas, mining)
			☐ Forestry (Including HCVF and REDD+)
			☐ Tourism
			☐ Agriculture & agrobiodiversity
			☐ Fisheries
			☐ Infrastructure
			☐ Certification (National Standards)
			☐ Certification (International Standards)
		☐ Species	
			☐ Illegal Wildlife Trade
			☐ Threatened Species
			☐ Wildlife for Sustainable Development
			☐ Crop Wild Relatives
			☐ Plant Genetic Resources
			☐ Animal Genetic Resources
			☐ Livestock Wild Relatives
			☐ Invasive Alien Species (IAS)
		☐ Biomes	
			☐ Mangroves
			☐ Coral Reefs
			☐ Sea Grasses
			☐ Wetlands
			☐ Rivers
			☐ Lakes
			☐ Tropical Rain Forests
			☐ Tropical Dry Forests
			☐ Temperate Forests
			☐ Grasslands
			☐ Paramo
			☐ Desert
		☐ Financial and Accounting	
			☐ Payment for Ecosystem Services
			☐ Natural Capital Assessment and Accounting

			☐ Conservation Trust Funds
			☐ Conservation Finance
		☐ Supplementary Protocol to the CBD	
			☐ Biosafety
			☐ Access to Genetic Resources Benefit Sharing
	☐ **Forests**		
		☐ Forest and Landscape Restoration	
			☐ REDD/REDD+
		☐ Forest	
			☐ Amazon
			☐ Congo
			☐ Drylands
	☐ **Land Degradation**		
		☐ Sustainable Land Management	
			☐ Restoration and Rehabilitation of Degraded Lands
			☐ Ecosystem Approach
			☐ Integrated and Cross-sectoral approach
			☐ Community-Based NRM
			☐ Sustainable Livelihoods
			☐ Income Generating Activities
			☐ Sustainable Agriculture
			☐ Sustainable Pasture Management
			☐ Sustainable Forest/Woodland Management
			☐ Improved Soil and Water Management Techniques
			☐ Sustainable Fire Management
			☐ Drought Mitigation/Early Warning
		☐ Land Degradation Neutrality	
			☐ Land Productivity
			☐ Land Cover and Land cover change
			☐ Carbon stocks above or below ground
		☐ Food Security	
	☒ **International Waters**		
		☐ Ship	
		☒ Coastal	
		☒ Freshwater	
			☒ Aquifer
			☐ River Basin
			☐ Lake Basin
		☐ Learning	
		☐ Fisheries	
		☐ Persistent toxic substances	
		☐ SIDS : Small Island Dev States	
		☐ Targeted Research	
		☒ Pollution	
			☐ Persistent toxic substances
			☐ Plastics
			☐ Nutrient pollution from all sectors except wastewater
			☐ Nutrient pollution from Wastewater
		☐ Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		☒ Strategic Action Plan	

		Implementation	
		☐ Areas Beyond National Jurisdiction	
		☒ Large Marine Ecosystems	
		☒ Private Sector	
		☐ Aquaculture	
		☐ Marine Protected Area	
		☐ Biomes	
			☐ Mangrove
			☐ Coral Reefs
			☐ Seagrasses
			☐ Polar Ecosystems
			☐ Constructed Wetlands
	☐ **Chemicals and Waste**		
		☐ Mercury	
		☐ Artisanal and Scale Gold Mining	
		☐ Coal Fired Power Plants	
		☐ Coal Fired Industrial Boilers	
		☐ Cement	
		☐ Non-Ferrous Metals Production	
		☐ Ozone	
		☐ Persistent Organic Pollutants	
		☐ Unintentional Persistent Organic Pollutants	
		☐ Sound Management of chemicals and Waste	
		☐ Waste Management	
			☐ Hazardous Waste Management
			☐ Industrial Waste
			☐ e-Waste
		☐ Emissions	
		☐ Disposal	
		☐ New Persistent Organic Pollutants	
		☐ Polychlorinated Biphenyls	
		☐ Plastics	
		☐ Eco-Efficiency	
		☐ Pesticides	
		☐ DDT - Vector Management	
		☐ DDT - Other	
		☐ Industrial Emissions	
		☐ Open Burning	
		☐ Best Available Technology / Best Environmental Practices	
		☐ Green Chemistry	
	☐ **Climate Change**		
		☐ **Climate Change Adaptation**	
			☐ Climate Finance
			☐ Least Developed Countries
			☐ Small Island Developing States
			☐ Disaster Risk Management
			☐ Sea-level rise
			☐ Climate Resilience
			☐ Climate information
			☐ Ecosystem-based Adaptation
			☐ Adaptation Tech Transfer
			☐ National Adaptation Programme of Action
			☐ National Adaptation Plan
			☐ Mainstreaming Adaptation
			☐ Private Sector
			☐ Innovation
			☐ Complementarity
			☐ Community-based Adaptation

			☐Livelihoods
		☐**Climate Change Mitigation**	
			☐Agriculture, Forestry, and other Land Use
			☐Energy Efficiency
			☐Sustainable Urban Systems and Transport
			☐Technology Transfer
			☐Renewable Energy
			☐Financing
			☐Enabling Activities
		☐**Technology Transfer**	
			☐Poznan Strategic Programme on Technology Transfer
			☐Climate Technology Centre & Network (CTCN)
			☐Endogenous technology
			☐Technology Needs Assessment
			☐Adaptation Tech Transfer
		☐**United Nations Framework on Climate Change**	
			☐Nationally Determined Contribution
		☐**Climate Finance (Rio Markers)**	☐Paris Agreement ☐Sustainable Development Goals ☐Climate Change Mitigation 1 ☐Climate Change Mitigation 2 ☐Climate Change Adaptation 1 ☐Climate Change Adaptation 2