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GEF2020 – STRATEGY FOR THE GEF

[1] Updated for typographical edits.

GEF2020

Strategy for the Global Environment Facility

May 15, 2014

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I. MESSAGE FROM THE CEO AND CHAIRPERSON

I came to the job as CEO and Chairperson of the GEF with very high ambitions for GEF. These ambitions were rooted in two convictions.

The first was the conviction that the GEF's work focuses on an absolutely central challenge facing us all today. This is the challenge of ensuring that continued growth and prosperity happens in a way that does not fundamentally compromise the very foundation upon which we have built our societies—that is, jeopardizes the natural systems that provide us with food, fiber, materials, and a stable climate.

The second was the conviction that the GEF has a vast potential to help the global community overcome this challenge. The GEF spans all important environmental domains. It provides funding through a network of first class agencies to more than 140 countries, and through its 20+ years of hard work it has accumulated an impressive amount of experience and know-how.

My experiences and interactions with numerous people from both within the GEF partnership and from outside during the past two years since I came on board have only served to confirm these convictions. Many global environmental trends are deteriorating rapidly, and pressures on the environment are set to increase in the years to come. The situation is urgent—and the urgency is increasing by the day. We need to build on the GEF's solid foundations to further lift our game.

Against this background I am delighted to put forward the GEF2020 strategy. GEF2020 emphasizes the need for us to find ways to support transformational change and achieve impacts at scale. It calls for the GEF to seek to focus as much as possible on the drivers of environmental degradation; it speaks to the importance of GEF supporting broad coalitions of committed stakeholders; and of GEF supporting innovative and scalable activities.

GEF2020 provides a path forward for the GEF to become a champion of the global environment. I am excited about the prospects of working with all members of the GEF family in the coming years to make this a reality.

Naoko Ishii
GEF CEO and Chairperson

Washington DC, May 13, 2014

II. CONTEXT

1. The section briefly reviews key global environmental trends, and the evolving landscape of environmental finance. It also summarizes GEF's main capabilities and strengths that can be built on to position the GEF for 2020 and beyond.

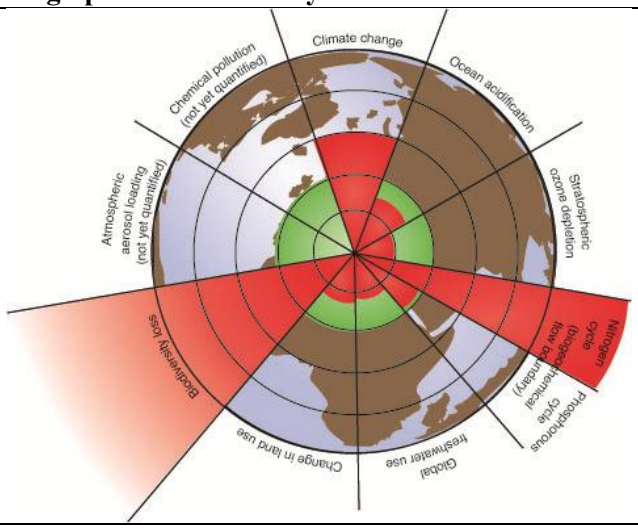
A. GLOBAL ENVIRONMENTAL TRENDS

2. **Healthy and well-managed ecosystems, together with a stable climate, are critical for the prospects for long-term sustainable development.** Ecosystems provide a range of services to people and societies. These benefits include: provisioning services such as food, water, timber, and fiber; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling. Consequently, as noted in the GEF-supported *Millennium Ecosystem Assessment* (MA), healthy ecosystems and a stable climate are a vital foundation for broad economic prosperity. In many instances, they also enhance social inclusion by meeting the needs of the poor and vulnerable, both women and men, and reduce the risk of conflict and insecurity. But humans have been progressively altering ecosystems, sometimes in radical ways, to meet growing demands for food, freshwater, timber, fiber, fuel, and other goods. As a result, some 60% of ecosystem services globally have been degraded in the past 50 years. In the same period, as highlighted in the most recent report from the Intergovernmental Panel on Climate Change (IPCC), addressing climate change has emerged as perhaps the pivotal environmental and economic challenge the world faces today.

3. **Despite notable successes, overall global environmental challenges have intensified since the 1992 Rio Earth Summit.** Concerns that the environment was starting to face challenges of global proportions date back to the late 1970s and early 1980s. The 1992 Rio Earth Summit represents a landmark in international efforts to promote environmental protection and development, and as the birthplace of the Biodiversity and Climate Change conventions, and the Global Environment Facility (GEF). The world's scientific understanding has improved substantially during the past two decades, enhancing global knowledge about challenges, risks and opportunities for altering future trends. Some Earth system and environmental scientists have argued that planetary boundaries, defined as a "safe operating space for humanity", are being transgressed along several dimensions (Box 1)." [1]

Box1. "A Safe Operating Space for Humanity"

Modern earth systems science (including geology, climate science, hydrology and ecology) makes clear that human activity is now dangerously impinging on vital Earth functions, including climate, the water cycle, the nitrogen cycle, biodiversity, ocean acidification, pollution and more. A group of scientists has proposed the existence of certain thresholds or "planetary boundaries" beyond which the security of people in most countries is likely to face severe risks, including potential set-backs for human development. According to this framework, the boundaries for biodiversity loss, climate change, and nitrogen release have already been transgressed.



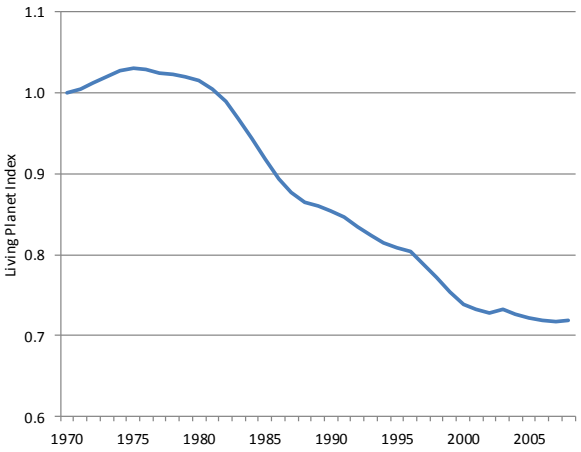
Source: Stockholm Resilience Center

4. **Many essential ecosystems are increasingly in jeopardy, putting social and development aspirations at risk at both local and global scales.** Environmental pressures are increasing across all the GEF's areas of focus, including accelerating biodiversity loss, climate change, land degradation, chemical pollution, degradation of international water bodies, and deforestation.

- *Biodiversity is being lost at rates comparable to geological periods of mass extinction.* Earth is facing what has been characterized as the 6th mass extinction of species, the most recent among other waves of extinction registered in the fossil record during the past 500 million years. Even the most conservative estimates indicate that human-caused extinctions are proceeding at rates one or two order of magnitude higher that those observed in the geological record. Almost a quarter of all plant species are now threatened with extinction, and the global populations of vertebrate species declined by nearly a third on average between 1970 and 2003.[2] Biodiversity declined by 30% globally between 1970 and 2007, and by 60% in tropical regions, as measured by the Living Planet Index[3] (figure 1). The IUCN's Red List Index of Endangered Species also shows negative trends across birds, mammals, amphibians and, especially, corals. The precipitous decline in biodiversity undermines the integrity of ecosystems and the vital goods and services they provide to people.

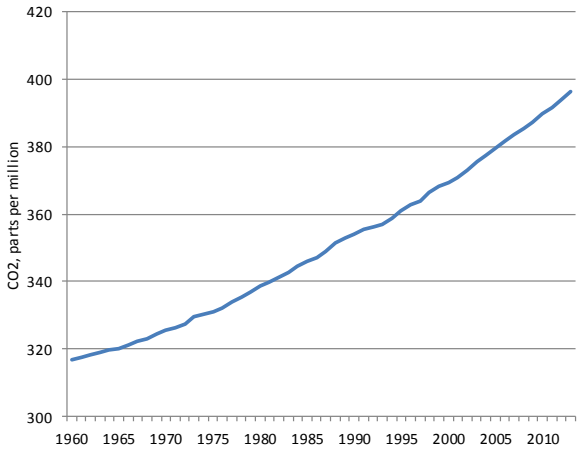
- *Climate change is no longer a future threat but already a reality.*[4] Atmospheric greenhouse gas (GHG) concentrations continue to grow, and with it the risks of devastating impacts from climate change. In 2010, about 49 Gt of CO_2 were released into the atmosphere, mostly from the burning of fossil fuels, almost double the amount released in the year 1970.[5] And growth in emissions has been accelerating since 1970. In 2013, the atmospheric concentration of CO_2 reached a record high 400 ppm at the Mauna Loa observatory in Hawaii (figure 2). The effects of climate change are already being felt. For example, the effects of climate change on crop and food production are evident in several regions of the world; coastal systems and low-lying areas are increasingly experiencing adverse impacts such as submergence, coastal flooding and coastal erosion due to relative sea level rise and storm surges; and acidification and warming of coastal waters are increasing with negative consequences for coastal ecosystems. Many projections suggest that in just 50 years average temperatures on Earth will be higher than all throughout the history of the human species on the planet. Without additional efforts to reduce GHG emissions beyond those in place today, emissions growth is expected to continue, driven by growth in global population and economic activities. This is projected to result in global mean surface temperature increases in 2100 from 3.7 to 4.8°C compared to pre-industrial levels.[6] Among other reasons for concern, this will result in longer and more intense heat waves, more frequent damaging storms, severe droughts, and major flooding across many regions, especially coastal cities, as well as sea levels rise, adversely affecting people and ecosystems, many of which have already started to affect the most vulnerable regions and the people.

Figure 1. Biodiversity is rapidly being lost



Source: WWF (2012). Living Planet Report 2012. WWF International, Gland, Switzerland.
Note: The Living Planet Index (LPI) reflects changes in the health of the planet's ecosystems by tracking population trends of over 2,500 vertebrate species.

Figure 2. CO_2 concentrations in the atmosphere continue to rise



Source: Mauna Loa Observatory.
Note: Data derived from in situ air measurements at the Mauna Loa Observatory, Hawaii (Elevation 3397m). Measurements at Mauna Loa form the world's longest, continuous, high-precision record of CO_2 levels in the atmosphere.

- *Deforestation continues***.** Forests provide multiple benefits. These include functioning as carbon sinks, providing food and fiber, acting as the largest repository of biodiversity globally, regulating water supplies, and stabilizing local and regional climate. But global deforestation remains high, particularly in the tropics. Between 2000 and 2010, a total of 50,000km^2 of forest was lost (on a net basis). Thirty percent of global forest cover has been cleared and 20% degraded.[7] Carbon dioxide emissions from deforestation and forest degradation now amount to approximately 12 % of total human-caused emissions.[8,9,10]

- *The health of oceans and freshwater resources is being compromised.* Global fisheries are collapsing at an alarming rate. Around 85% of global fish stocks are either depleted, overexploited, fully exploited or in a period of recovery following overexploitation. Fisheries management efforts are not keeping pace with accelerating rates of exploitation.[11] Acidification of oceans is threatening key marine ecosystems, including coral reefs, which harbor very high diversity of marine species and are also critical for the livelihoods of millions of people. Growing phosphorous and nitrogen pollution from agriculture, aquaculture, urban wastewater, and industry threatens freshwater and marine ecosystems. Pollution load produces hypoxia (low oxygen conditions) or "dead zones" along the coast, adding to pressures on marine ecosystems. The number of dead zones has been doubling every decade in the past 50 years, and today more than 500 hypoxic zones threaten the health of the majority of the world's large marine ecosystems.[12]

- *About one quarter of the world's land area has been degraded since 1980.*[13] The *Global Analysis of Land Degradation and Improvements* estimated that 24% of the world land area was undergoing degradation. In the developing world, land degradation is concentrated in Africa south of the Equator, South-East Asia, Southern China and the Papas grasslands in South America. Approximately 1.5 billion people directly depend on ecosystem services provided by areas that are undergoing degradation, with the impact disproportionally impacting the poor and vulnerable, including women.

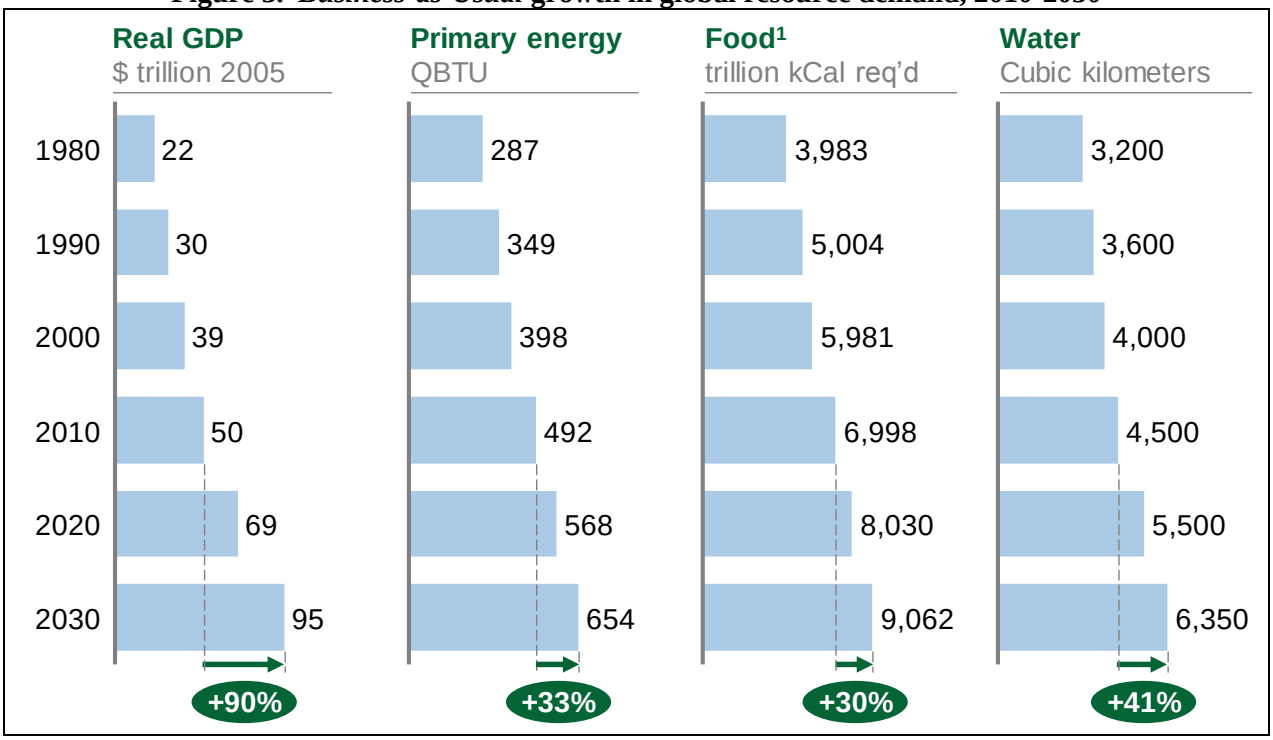
- *Chemical pollution continues to threaten our ecosystems and human health.* Human health and the health of ecosystems are threatened by increasing chemical pollution, particularly from persistent organic pollutants (POPs) and heavy metals such as mercury.

5. **Pressures on the global environment are set to increase in the coming decades.** Three global socioeconomic trends in particular—population growth, the rising middle class, and urbanization —will lead to further, major degradation of global ecosystems under a business-as-usual scenario:

- *The world's population will continue to grow.* From less than 4 billion in 1970 to just over 7 billion in 2012, the global population is projected to exceed 9 billion by 2050, with almost half of this growth in Sub-Saharan Africa.[14] Feeding a growing global population will likely lead to increased conversion of natural landscapes to agriculture use. The MA projected that, globally, the land area devoted to agricultural production might increase 1020% compared to the year 2000.[15] It will also increase the use of chemicals for pest control, increasing pressures on the environment. Climate change will further exacerbate stresses in many places, as water resources are being overexploited and degraded, and crop and land productivity will suffer from heat and drought stress.[16]

- *The world economy and the global middle class will expand significantly*. The world economy is projected to almost double in size in the next two decades, from about US$50 trillion in 2010 to US$95 trillion in 2030. At the same time, the global middle-class—those with a daily consumption between US$10 and US$100 —is expected to grow to nearly 5 billion by 2030, with two-thirds of these 5 billion living in Asia.[17] This change will drive an increase in global consumption that could accelerate global environmental degradation, unless consumption is shifted towards more sustainably produced goods and services. Combined with a growing population, the burgeoning middle class is a major factor in a projected increase in demand for a number of key resources (figure 3), including an increase of about one-third in energy demand and food demand required globally by 2030, and large increases in demand for buildings and transport by 2030. [18,19]

Figure 3. *Business-as-Usual* growth in global resource demand, 2010-2030



Source: Global insight; IEA; UN Environment Program (UNEP); McKinsey analysis in McKinsey and Company, 2011. "Resource Revolution," FAO 2012 (Food Balance Sheets), UNDESA 2013 (World Population Prospects: The 2012 Revision), WRI 2013 (Creating a Sustainable Food Future).

- *Urbanization will continue*. In parallel, the world's population will become increasingly urbanized. In 1970, about 1.3 billion people, or 36% of the world's population, lived in urban areas. By 2009, just over 50% of people were urbanites. And by 2025, more than a billion additional people are expected to live in cities, most of them in Asia. Urban areas already account for the vast share of the world's gross domestic product and more than 70% of global greenhouse gas emissions.[20] Many climate change risks are now concentrated in urban areas, ranging from heat stress, extreme precipitation, flooding, landslides, air pollution, to water scarcity and droughts. These risks are also amplified for areas without essential infrastructure and services, and for those living in exposed areas (IPCC, 2014). But depending on how urban expansion occurs, the environmental footprint of urban areas will vary significantly as a function of size, wealth, geography, and the capacity and foresight of local authorities. Thus, one of the potential outcomes is that of "[u]rban localities actually offer[ing] better chances for long-term sustainability, starting with the fact that they concentrate half the Earth's population on less than 3 per cent of its land area."[21] When it comes to urbanization, trend is not yet destiny. There is still an opportunity to design smarter cities with an eye toward long-term sustainability.

B. CHANGING LANDSCAPE FOR ENVIRONMENT FINANCE

6. **The financial landscape, especially for climate financing, is changing rapidly.** In 2012, global climate finance flows reached approximately US$359 billion, according to *The Global Landscape of Climate Finance 2013* (CPI 2013). About three-fourths of all climate finance is spent within the country of origin, while only about 15% of all climate finance flows to non-OECD countries from international sources. Global investments in renewable energy—the biggest use of climate finance—amounted to US$214 billion in 2013, some 14% lower than in 2012, reflecting in part the effect of policy uncertainty in many countries leading to delays in investment decisions.[22]

7. **There is a variety of finance providers and instruments.** New institutions, with mandates somewhat similar to the GEF's such as the Green Climate Fund and the Climate Investment Funds, have entered the arena, emphasizing the need for the GEF to proactively seek complementarities and collaboration. Private investors, including pension funds and sovereign wealth funds, are also increasingly investing in public-private partnerships focused on green investments as well as green bonds. And traditional players, such as the World Bank and regional development banks, have intensified their focus on environmental sustainability. In some emerging economies, national development banks and state-owned policy banks are emerging as major players in environmentally relevant finance. In 2012, the public sector accounted for approximately 38%, or US$135 billion, of global climate finance, with the vast majority (69%) of this committed through development finance institutions and another 28% (US$38 billion) contributed by Multilateral Development Banks. The private sector accounted for 62% of all climate finance in 2012, or about US$224 billion. About 28% of private climate finance flows originates with private project developers (for example energy utilities, and independent power producers), while another 19% were contributed by corporate actors, including manufacturers and corporate end-users. The menu of climate finance instruments is also broad, from policy incentives, to risk management instruments, grants, concessional debt, to market-rate debt, equity and balance sheet financing.

C. GEF'S CAPABILITIES AND STRENGTHS

8. **One of the core strengths of the GEF stems from its role as a financing mechanism for several multilateral environmental conventions that span most of the issues that are relevant to the global environment.** The GEF serves as a financing mechanism for the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the Stockholm Convention on Persistent Organic Pollutants, and the United Nations Convention to Combat Desertification (UNCCD). In October 2013, the international community adopted the Minamata Convention on Mercury, a global legally binding instrument, and agreed on a role for the GEF as a financial mechanism for the new convention. The GEF also provides resources for economies in transition under the Montreal Protocol dealing with ozone depleting substances. Since its inception, the GEF has implemented a significant International Waters program aimed at improving the management of transboundary fresh water resources and large marine ecosystems, and also provided funding to projects that generate multiple environmental benefits and that are consistent with the objectives of the United Nations Forum on Forests (UNFF).

9. **GEF is versatile and adaptive to changing challenges.** A number of new programmatic areas have been added to the GEF over time. For example, sustainable forest management that benefits the agenda of the United Nations Forum on Forests (UNFF) was added in 2007. In 2010, with support from several contributors, the GEF established the Nagoya Protocol Implementation Fund (NPIF) to specifically support the access and benefit sharing objective under the CBD. In parallel, as the case to consider adaptation and resilience grew stronger, at the request of the Parties to the UNFCCC, two new funds with a focus on funding climate change adaptation activities (the Least Developed Countries Fund (LDCF) and the Strategic Climate Change Fund (SCCF)) were established under GEF purview.[23] In chemicals, the GEF has played a key role in helping harmonize work on the chemical and waste conventions.

10. **A chief strength is the GEF's strong, diverse and expanding network of implementing partners**. Initially, the GEF was designed as a partnership with the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the World Bank Group (WBG) as implementing partners in accordance with each institution's comparative advantage. In the early 2000s, seven new agencies were added to the GEF partnership,[24] significantly broadening the

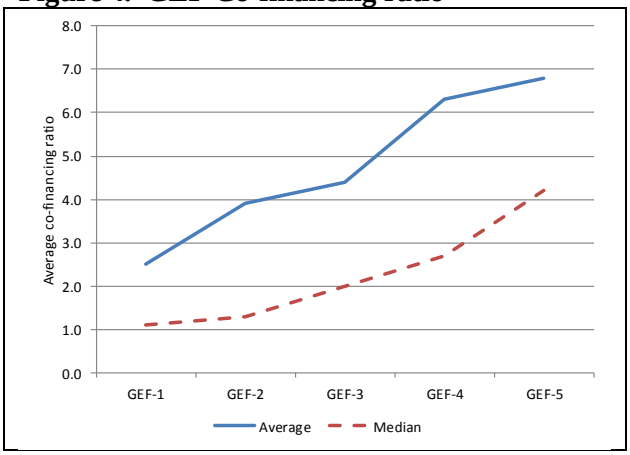
GEF's technical expertise and implementation capacity, providing recipient countries with a broader array of choices to implement GEF-funded projects. Since 2012, the GEF has been undertaking a process to accredit additional project agencies.[25]

11. **GEF programing is bolstered by a well-established institutional setup.** The GEF's governance structure is inclusive, equitable and transparent. When it was established in the early 1990s, the GEF's governance structure set a new standard, as the GEF Council has an equal number of seats for developing and developed countries.[26] Progressively, many of the GEF-recipient countries are also becoming donors to the facility, enhancing the overall ownership of its priorities and programs. All project documents for decision by the Council, as well as a host of other information, are being made publicly available on the GEF website. Accountability is enhanced by an Independent Evaluation Office (IEO), which reports directly to the Council and provides ongoing monitoring and evaluation of project outcomes. In addition, the GEF is advised by a standing Scientific and Technical Advisory Panel (STAP) comprised of world-class scientists covering all GEF focal areas. GEF applies best-practice fiduciary standards and has established high standards for environmental and social safeguards, gender mainstreaming, and engagement with civil society organizations and indigenous peoples.

12. **GEF has a good record of delivering results on the ground.** Since its inception, GEF has provided a total of about US$11.5 billion in grant resources to developing countries for the benefit of the global environment. A total of 2,800 projects have been approved.[27] Repeated reports by the Independent Evaluation Office (IEO) show that GEF projects have impact on the ground. Most recently, the Overall Performance Study for GEF-5 (OPS-5) concluded that GEF projects are effective in producing outcomes, with more than 80% of completed projects during GEF-5 receiving an outcome rating of at least Moderately Satisfactory, exceeding the international benchmark of 75%. Consequently, OPS-5 concludes that the GEF is achieving its mandate and objectives, and is relevant to the conventions and to regional and national priorities. The performance of the GEF has also been evaluated as delivering value for money in recent assessments conducted by key bilateral agencies.[28]

13. **GEF financing plays a catalytic role** (*figure 4*). During GEF-2 and GEF-3, the average co-financing ratio of GEF projects was around 1:4, while it increased to around 1:6 in GEF-4 and GEF-5, driven in part by a significant increase in the leveraging of GEF's climate change portfolio in middle income countries. In line with the GEF-6 policy recommendations, the GEF will continue to aspire to achieve high co-financing ratios, especially in middle income countries.

Figure 4. GEF Co-financing ratio



Source: PMIS and staff calculations.
Note: All GEF Trust Fund projects, except enabling activities

III. POSITIONING THE GEF FOR 2020 AND BEYOND

14. **The coming years are critical for the global environment.** For example, avoiding the worst impacts of climate change will require reducing emissions of GHGs substantially and rapidly. Estimates suggest that, in order to stabilize atmospheric concentrations of CO_2 at 450ppm by the year 2050, global emissions would have to peak within the next five years and decline by about 5 % annually until 2050—a rate of decline that has never before been observed on a sustained basis.[29] Adaptation and mitigation choices in the near-term, as well as developmental pathways in the longer-term period, will affect the risks of climate change through the 21st century (IPCC, 2014). In biodiversity, the Conference of the Parties to the Convention on Biodiversity has established a set of ambitious targets to be reached by 2020, in order to halt biodiversity loss. The international community is currently discussing the establishment of a set of sustainable development goals for 2030, the achievement of which will be more challenging unless urgent action is taken.

A. GEF'S VALUE PROPOSITION

15. **The GEF's occupies a unique space in the global financing architecture by delivering global environmental benefits across multiple domains.** The GEF helps to ensure the sustainable use of ecosystems and resources, upon which all life depends. As reflected in the GEF Instrument, the premise is that the environment is essential for sustainable development.[30]

16. **The 2020 vision for the GEF is to be a champion of the global environment, supporting transformational change and achieving global environmental benefits at scale.** To achieve this vision, the GEF will:

- ***Address drivers of environmental degradation.*** The GEF will proactively seek out interventions that focus on the underlying drivers of global environmental degradation, and support coalitions that bring together partnerships of committed stakeholders around solutions to complex environmental challenges.

- ***Support innovative and scalable activities.*** The GEF will support innovative ways of doing business and focus on activities that are scalable across multiple countries, regions and sectors through policy, market or behavioral transformations.

- ***Deliver the highest impacts, cost-effectively.*** The GEF will keep a clear focus on maximizing the global environmental benefits it generates from its funding by pursuing cost-effective solutions to major environmental challenges.

17. **To fulfill its vision, it is imperative that the GEF achieve impacts at even greater scales than those being realized within its existing portfolio.** OPS-5 concluded that only 20% of GEF-funded projects showed evidence of achieving impact at a system scale beyond the direct impacts at the site of an intervention, although the IEO notes that such scale impacts may still happen in the future.[31] Similarly, the Scientific and Technical Advisory Panel (STAP) underscored that the GEF would only be able to achieve transformational outcomes "by breaking away from single technology and/or single sector approaches towards a focus on systemic approaches." STAP noted the importance of the GEF's projects seeking broader outcomes beyond single program silos, better addressing the key drivers of environmental degradation and not solely the pressure points, and developing a comprehensive approach toward scaling up the impact of its investments.[32]

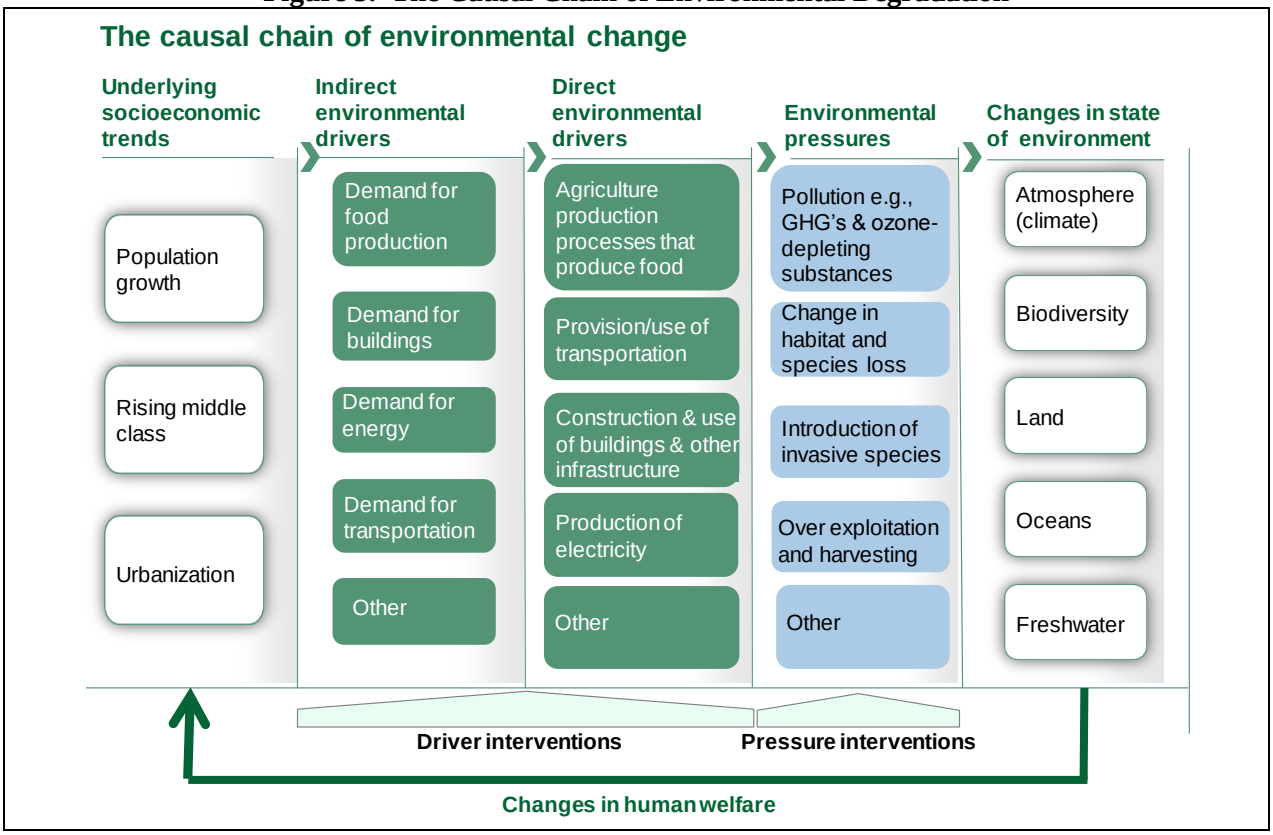
IV. KEY STRATEGIC PRIORITIES

18. In order to deliver on the 2020 vision, the GEF will pursue five strategic priorities, namely: (i) seek to address the drivers of environmental degradation; (ii) pursue integrated solutions; (iii) enhance resilience and adaptation; (iv) ensure complementarity and synergies, especially in climate finance, and; (v) focus on choosing the right influencing model.

A. ADDRESSING DRIVERS OF ENVIRONMENTAL DEGRADATION

19. **The GEF can enhance its impact by seeking to address the drivers of environmental degradation.** Environmental drivers arise from the demand and supply of goods and services, which in turn generate environmental pressures that directly impact the state of the environment (Figure 5). The framework is useful to illustrate that efforts to prevent biodiversity loss can happen at multiple points in the causal chain. For example, rising demand for beef may result in additional pressure to clear land for pastures, leading to further deforestation, soil degradation and biodiversity loss. A more "upstream" driver-focus to this same problem would enable the GEF to deliver cascading global environmental benefits down the causal chain, thereby progressively reducing the impact of the original driver and thus increasing the overall impact of interventions. By seeking to address environmental degradation at a systemic level, the need for subsequent remedial action—which often is much more expensive, if not impossible—would also be reduced.

Figure 5. The Causal Chain of Environmental Degradation



Note: There is no universally accepted framework for defining the causal chain between the underlying socioeconomic trends and the global environmental state. The above framework is adapted from FAO/UNEP DPSIR/DPSWR (drivers, pressures, state, impact/welfare and response) frameworks and the Millennium Ecosystem Assessment, Ecosystems and Human well-being Biodiversity Synthesis, World Resources Institute, 2005.

20. **Addressing drivers will help the environmental conventions to better achieve their goals with support from the GEF as their financial mechanism**. Conventions and recipient countries recognize that a focus on underlying drivers is critical for their long-term success. For example, the Strategic Plan for Biodiversity 2011-20 and the Aichi Targets, in reflecting on the status of the previous 2010 targets, emphasize that "there has been insufficient integration of biodiversity issues into broader policies, strategies, programmes and actions, and therefore the underlying drivers of biodiversity loss have not been significantly reduced". The Strategic Plan also noted that among the multiple entry points that need to be pursued to achieve a positive outcome by 2020 is "action to address the underlying causes of biodiversity loss, including production and consumptions patterns, by ensuring that biodiversity concerns are mainstreamed throughout government and society…"[33] Similarly, abatement of atmospheric GHG emissions sufficient to achieve "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"[34] will not be possible without influencing underlying drivers stemming from growing demand for energy and/or reductions in fossil-fuel based energy production in favor of renewable energy. Likewise, in the chemical and waste area, to ultimately reduce the production and use of harmful chemicals would require efforts on supply chain management and production techniques.

21. **Altering demand towards more sustainably produced goods and services is an important avenue to reduce environmental degradation.** The GEF has a range of tools at its disposal that can be deployed in this regard. These include certification standards for consumer goods, such as those the GEF supported through the Rainforest Alliance and private sector partners. They also include the introduction of systems of payments for ecosystem services (PES), which corrects distortions that lead to unsustainable resource use and depletion of natural capital and towards incentives that reinforce the value of ecosystem goods and services. The GEF has been a pioneer and committed significant seed funding to these schemes in several countries (Box 2). Moreover, innovative financing models, such as partial risk guarantees, can help stimulate demand for more energy efficient equipment in both households and industry, and facilitate more sustainable production and consumption of goods and services.

Box 2. GEF investments in Payment for Ecosystem Services

The basic concept behind Payment for Ecosystem Services (PES) is—as the name implies—that the provider of ecosystem services is compensated for their continued provision, thereby creating an incentive for sustainable management of the services. The GEF has been among the pioneers in supporting PES in a number of countries and locations, for example:

- Capacity building for mainstreaming of PES. For example, the GEF's *Project for Ecosystem Services* is a global project with pilots in Chile, Vietnam, Trinidad and Tobago, South Africa and Lesotho, which seeks to integrate the sustainable use of biological resources and ecosystem services into national decision making and development approaches. The project is developing an enhanced use of payment for ecosystem services in policy making.
- National-level implementation of PES. The GEF supported two of the world's most prominent national PES schemes, the Environmental Services Payment Program in Costa Rica and the Hydrological Environmental Services Program in Mexico. The scheme in Costa Rica compensates landowners for activities that have been identified as contributing to a sustainable environment, including conservation of natural forests, reforestation through sustainable plantations and agro-forestry, and is funded through a mix of domestic resources (a fuel tax and a forestry tax) and multilateral and bilateral support. In Mexico, the scheme benefits local communities. The GEF program provides support for the development of sustainable financing mechanisms for biodiversity, and through water fees seeks to create a direct link between those who benefit from the environmental service and those who provide it.
- Water Funds: a growing frontier. Water quality and quantity is emerging as a central service provided by ecosystems. The GEF's Earth Fund helped establish five water funds in Latin America and the Caribbean, to pay for the conservation of watersheds that provide water and support globally important biodiversity. Similarly, in the Fynbos and grasslands of South Africa, the GEF has supported agreements between buyers and sellers of important ecosystem services including water, fiber and medicines.

Source: Payment for Ecosystem Services. GEF (2010)

22. **A key priority for GEF will be to help change the production of goods and services in a manner that reduces or eliminates impact on the environment.** The GEF has promoted a range of experiences in the supply of environmentally sustainable goods and services, including by: introducing standards for electricity consumption in households or industry appliances, as in the GEF's en.Lighten Project; improving agricultural practices to preserve soil health to improve food security as in the GEF supported project in Senegal's Groundnut Basin; eliminating the use of persistent organic pollutants in economic processes, such as the elimination of the use of DDT in the production of the pesticide Dicofol in China, and; helping reduce the threat of invasive species in marine ecosystems through strengthened regulation of shipping ballast water (the Globallast Project, see Box 3). Going forward, the GEF will explore options for working across entire supply chains and focusing on industry-wise approaches.

Box 3. Globallast—Closing a Pathway for Biodiversity Loss in Global Supply Chains

Since the introduction of steel hulled vessels around 120 years ago, water has been used as ballast to stabilize vessels at sea. While ballast water is essential for safe and efficient modern shipping operations, it can pose serious threats to the health of ocean because of the invasive aquatic species and potentially related diseases carried in ballast waters.

Recognizing this issue, the GEF has partnered with the International Maritime Organization (IMO) to help establish a global partnership entitled 'The Global Ballast Water Management Programme' or 'GloBallast'. Through two GEF interventions in the area of International Waters, Globallast built the capacity of over 50 developing countries. These interventions have been helping to address ballast water invasive threats through the reform of national ballast water management policies, legislation and institutions, as well as through global advocacy and awareness raising, and ballast water risk assessment and training.

In addition, GloBallast is helping to catalyze a major transformation in the shipping industry. More than US$100 million has been committed by the private sector in ballast water treatment R&D and testing facilities. Once the IMO Ballast Water Management Convention comes into effect, the market for ballast water treatment for 57,000 vessels globally is estimated to grow to US$35 billion over the next ten years.

23. **The GEF must also remain ready to tackle immediate environmental pressures and crises.** In the words of the Biodiversity Strategic Plan "While longer term actions to reduce the underlying causes of biodiversity are taking effect, immediate action can help conserve biodiversity, including in critical ecosystems, by means of protected areas, habitat restoration, species recovery programs and other targeted conservation interventions". To this effect, well-managed protected area systems are one of the critical ingredients to achieve many of the Aichi targets, in addition to helping support the flow of ecosystem services and as tools for climate change adaptation. There are also urgent needs to address immediate environmental threats in other focal areas, including for example by reducing inadequately stored stockpiles of POPs.

B. DELIVERING INTEGRATED SOLUTIONS

24. **Many global environmental challenges are interlinked and share common drivers.** Biodiversity loss, climate change, ecosystem degradation and pollution often share common drivers and/or demand coordinated responses. For example, unsustainable agricultural production contributes approximately one-quarter of global GHG emissions. But it is also a leading cause of hypoxia in aquatic systems, while leading to deforestation and habitat destruction, and in turn promoting further loss of biodiversity. By targeting key drivers, the GEF can magnify the total effect of its investments, making them add up to more than the sum of their parts. Interdependence between environmental challenges is an additional reason for considering integrated approaches. For example, ecosystem degradation may happen faster due to vulnerabilities created by climate change—indeed, research suggests that such interaction effects markedly increase the probability that crossing critical thresholds of irreversible change occur faster than what would be predicted from each factor separately.[35]

25. **In GEF-6, a set of integrated approach programs (IAPs) will be implemented on a pilot basis**. These Integrated Approach programs will support activities that can help countries and the global community meet commitments to more than one global convention, by tackling underlying drivers of environmental degradation with the aim of creating synergies leading to greater and sustained impact (Box 4). These initiatives will also complement national level programming with transboundary, regional and global scale action. Furthermore, the IAPs will use GEF's wider partnership to bring stakeholders together on a selected set of priority issues. Special attention will be given to engaging the private sector and to improving evidence-based design and implementation to enhance learning and effectiveness of the IAP interventions.

Box 4. The GEF-6 Integrated Approach Programs

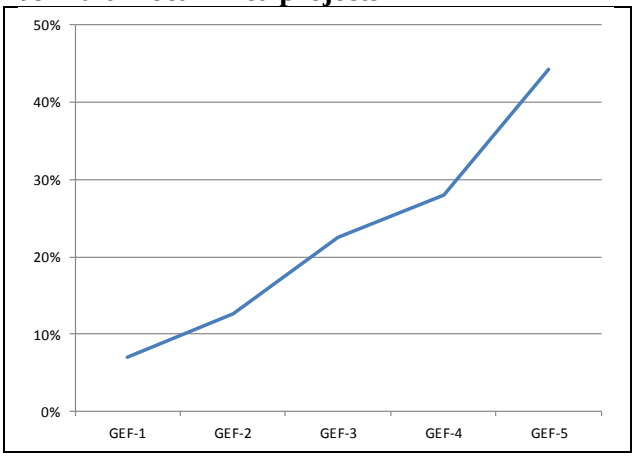
The GEF-6 programing strategy includes three Integrated Approach Programs (IAPs): First, the IAP on *Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa* recognizes that jointly tackling energy, water, soils and food is essential for sustainable development and, therefore, will build on the nexus between these themes to promote greater impact and efficiency in the overall investments. Second, the *Sustainable Cities* IAP offers a direct pathway to secure higher returns for the investment given that cities are now responsible for over 70% of carbon dioxide emissions globally. Finally, the IAP on *Taking Deforestation out of Commodity Supply Chains* will work with the private sector (producers), consumers and other stakeholders to tackle some of the principal drivers of forest loss in developing countries.

Common among these three themes is that they involve a need to address global environment issues more holistically, within a much broader and more complex set of development challenges. It is critical to establish or strengthen platforms upon which a broad set of stakeholders can come together. GEF contributions to these challenges would seek to ensure that key global environment issues are adequately considered in this broader context, and to identify the most effective ways to use funds in innovative ways to reach a higher impact and scale.

Source: GEF-6 Programming Directions

26. **The GEF will build on its past experiences.** GEF already has operational experiences with integrated approaches and will leverage its lessons learned from: (i) implementation of larger programs, such as the Areas Beyond National Jurisdiction (ABNJ), Great Green Wall program, and the Ridge to Reef Program,; (ii) the operational experience of combining funding from country allocations with incentive mechanisms, in particular through GEF Sustainable Forest Management/REDD+ program, and; (iii) the growing portfolio of multi-focal area projects and programs, which is a particular visible trend. In GEF-5, about 44% of GEF funding was programed as multi-focal area projects (Figure 6).[36] Even if more analytical work is needed to fully understand and document the impact of these projects, a detailed review done as part of OPS-5 is encouraging in that on average multi focal area projects achieve the same high level of satisfactory outcome ratings and single-focal area projects.[37]

Figure 6. Share of GEF funding programmed as Multi-Focal-Area projects



Source: PMIS and staff calculation.
Note: Only GEF main trust fund

C. ENHANCING RESILIENCE AND ADAPTATION

27. **The case for urgent action on adaption is unequivocal**. IPCC's 5th Assessment Report (AR5) notes a broad set of climate related risks that varies across regions and sectors, for example reduced crop productivity in Africa due to heat and drought stress, increased riverine, coastal and urban flooding from storm surges and sea-level rise in Asia and reduced fresh-water availability in semi-arid and glacier-melt-dependent regions in Central and South America. The *2013 Global Risk Report* from the World Economic Forum ranked a failure of climate change adaptation among the most severe global risks.

28. **The GEF will remain at the forefront of international effort to strengthen countries' resilience to climate change**. Principally through the LDCF and SCCF, the GEF's Adaptation Program has already supported a pioneering, global portfolio of adaptation projects in 124 countries worth more than US$1.18 billion. The GEF will continue to focus on its adaptation funding on reducing the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change; strengthening institutional and technical capacities for effective climate change adaptation; and integrating climate change adaptation into relevant policies, plans and associated processes. Through its support for national adaptation plans (NAPs), the GEF will support countries to incorporate adaptation measures into broader development efforts, to identify their medium-to-long term adaptation needs based on enhanced scientific and technical knowledge, and to strengthen coordination at the country level. It will also help pave the way for investments at scale, possibly funded by the Green Climate Fund or other public or private actors, particularly in countries with limited technical and institutional capacity.

29. **Adaptation offers an avenue to seeking integration and synergies with other efforts to improve the global environment**. The GEF will aim to achieve as many adaptation benefits and global environment benefits as possible. For example, adaptation measures may generate global environmental co-benefits by improving water-use efficiency in agriculture or promoting ecosystem-based adaptation (Box 5), e.g. through sustainable management of mangroves in the face of sea level rise and coastal erosion. Integration, if done well, would reduce transaction costs, increase cost-effectiveness in implementation and capture economies of scale. The GEF will also seek to integrate climate resilience into its investments in other focal areas in a more concerted and more systematic manner, for example through climate change risk assessments, and the incorporation of relevant risk mitigation measures into project and policy design.

Box 5. Ecosystem based adaptation—delivering multiple benefits while building resilience

Poor and vulnerable populations generally rely more directly on ecosystem services—for food, fiber and fuel. The objective of ecosystem based adaptation (EbA) is to include biodiversity and ecosystem services as part of an overall adaptation strategy to help poor and vulnerable people to adapt to climate change. EbA can help maintain and restore natural assets, such as wetlands and forest, contribute to food security, coastal protection, and climate-resilient water resources management, while also improve the resilience of fragile ecosystems and biodiversity.

Therefore ecosystems represent an important entry-point for adaptation. At the national level, a significant number of GEF supported NAPAs prioritizes sustainable management, conservation and restoration of ecosystems, as means of achieving cost-effective and poverty-focused adaptation. The GEF has also funded projects that employ specific EbA approaches. For example, the Integrated National Adaptation Project in Colombia focuses on high-mountain ecosystems and coastal areas, and uses community-based initiates to restore watersheds, vegetation and land-slide affected areas.

D. ENSURING COMPLEMENTARITY AND SYNERGIES IN CLIMATE FINANCE

30. **GEF needs to ensure maximum complementarity with other players and instruments, especially in the climate finance space.** The landscape of climate finance is rapidly evolving, but the financial needs to transform markets towards low carbon development remain significant. In many cases, although each climate finance actor plays its unique role, if combined carefully, they can complement each other, leverage private sector investments and produce much higher impacts than they would if operated in isolation. The experiences of the GEF demonstrate how this complementarity has been materialized among different financing actors. The GEF's pursuit of complementarity in climate finance has in recent years manifested itself in a 13:1 co-financing ratio of GEF climate change mitigation projects. In particular, GEF's climate portfolio has helped lay the foundation for catalyzing substantial funding from the private sector, national governments and partner agencies that otherwise might not have occurred. Leveraging capital sources towards green investments will require that the GEF's limited resources are used catalytically to provide other investors with the right signals and incentives to achieve global environmental results effectively and efficiently.

E. CHOOSING THE RIGHT INFLUENCING MODELS

31. **The GEF achieves impact through a number of influencing models.** The GEF's choice of influencing models needs to be matched to the barriers they intend to overcome, be it weak or inadequate policy frameworks, lack of awareness, limited access to finance, technological gaps or coordination failure or others. Since in practice there are often multiple barriers, a variety of influencing models is often needed, sometimes carefully sequenced. For example, support for implementation of new policies is unlikely to be successful if institutional capacity is very weak. By choosing the right influencing model(s), there is a higher chance of making sure that GEF interventions are as catalytic as possible. Consequently, the GEF will prioritize interventions that are designed with a view to generate global environmental benefits at scale, across multiple geographies, across multiple sectors or markets. Scale can be achieved in several ways, including directly from the intervention, as e.g. in the GEF's work in the Coral Triangle (Box 6) or the GEF's support for the Amazon Region Protected Areas Project, from market or behavioral transformations, or from GEF interventions being scaled up by others. The GEF's experience is that a focus on drivers and a focus on scale are often mutually reinforcing.[38]

32. **Most GEF projects will rely on one or more of the following influencing models:**

- ***Transforming policy and regulatory environments.*** This model helps governments put in place the policies, regulations and institutions that can redirect their own investment paths and spending practices. It also gives individuals and companies operating at various levels—local, national, multinational—the signal or incentive to change their consumption and production choices. This model can more effectively be targeted at scales that deliver greater benefits for the global environment. Such signals/incentives need to be clear, predictable, and sustained over time in order to enable private sector actors to make optimal decisions. With support from the GEF and others, for example, the South African government put in place new policy and regulatory frameworks in their renewable energy market, which helped create enabling conditions to make South Africa the G20 country with the fastest clean energy market growth in the past five years.

- ***Strengthening institutional capacity and decision-making processes.*** Supporting strengthened institutions, improved information, broader participation, and enhanced accountability in public and private decisions can have significant impacts on the environment. The GEF has a long history of supporting institution building. For example, one of GEF's earliest projects[39] helped

establish what eventually became the Secretariat of Biodiversity and Forests within Brazil's Ministry of Environment, which has been instrumental in developing Brazil's legal framework for biodiversity and in formulating the National Biodiversity Strategy. Another example is in India, [40] where the GEF helped establish the Gulf of Mannar Biosphere Reserve Trust (GOMBRT), which has now been made a statutory body of the Government of Tamil Nadu.

- ***Convening multi-stakeholder alliances.*** 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 simultaneous actions to be taken by many different stakeholders in order to be effective, as in for example attempts to create sustainable commodity supply chains where efforts from local producers, buyers, manufacturers, wholesalers and retailers and, ultimately, consumers are needed. Partnerships with the private sector, civil society, research, and indigenous and local communities are vital in this regard. Coordination failures and complexities are often exacerbated because decisions that impact the environment are often fragmented across multiple government agencies.

- ***Demonstrating innovative approaches.*** The GEF has a long history of providing support for the demonstration of a technology, a policy measure or an approach to address environmental degradation, with the aim of creating a "beacon effect" that can spur broader adoption. Many other examples of support for innovation can be listed, including for example the GEF's early support for concentrating solar power production, the groundbreaking support for Payment for Ecosystem Services (Box 2), and more recently the GEF CleanTech program. The ultimate success of such demonstration activities often depends on a clear strategy for up-scaling being designed early on.

- ***Deploying innovative financial instruments.*** Financial instruments can help cover risks or investment gaps that investors, who are generally focused on financial returns or private development benefits, would not have the incentive to cover, and in this way can help leverage private sector investments. For example, with the project on China Utility Energy Efficiency (CHUEE), the GEF has provided funds to de-risk large volume IFC loan-guarantees to help unlock energy efficiency lending from commercial banks, resulting in replication of an effective energy efficiency lending model across the country. Another example is the GEF's support for the Caribbean Regional Fund for Wastewater Management (CReW), which will create revolving funding mechanisms to provide sustainable financing for environmentally sound and cost-effective wastewater management across the region.

Box 6. The Coral Triangle Initiative—Building a Multi-Stakeholder Alliance to Achieve Impact at Scale

The Coral Triangle, which lies between and links Indonesia, the Philippines, Malaysia, Timor Leste, Papua New Guinea and the Solomon Islands, is a vital global marine resource. It covers 5.7 million km^2, equivalent to 1.6% of the world's oceans, and is home to 76% of the Earth's coral species and 37% of all reef species. It is also the spawning ground for six species of turtles as well as endangered fish and cetaceans, such as tuna and blue whales. An estimated 363 million people live within the Coral Triangle's boundaries, and more than 120 million people along the 125,270 km of coastline – an estimated 2.25 million of them being fishers – depend on the area for economic and food security. The region produces annual earnings of some US$ 3 billion from fish exports and a further US$ 3 billion from coastal tourism.

However, some 95% of reefs in the region are assessed as being at risk. Overfishing has been widespread and pollution on land has had a deleterious effect on biodiversity in the triangle and on its productivity. In the long-term, climate change – through rising sea temperatures and sea levels, plus growing ocean acidification – is likely to further damage the delicate ecosystem.

In response to the mounting threats, the GEF joined a broad partnership led by the six Coral Triangle countries, which also includes international development partners, non-government organizations, local communities and the private sector. This alliance aims to strengthen the governance of the Coral Triangle, to implement a regional action plan focusing on sustainable management of the seascape (including fishing), to establish a functioning, protected marine area, and to strengthen the Coral Triangle's resilience and adaptation to climate change.

Source: World Economic Forum, Green Light: Managing the Global Commons: The Coral Triangle Initiative

V. CORE OPERATIONAL PRINCIPLES

33. **A number of core operational principles will underpin GEF2020.** They represent key "nuts and bolts" of the GEF's operational system important for the GEF's ability to effectively deliver on its strategic priorities that needs to be continuously strengthened.

A. MOBILIZING LOCAL AND GLOBAL STAKEHOLDERS

34. **As with all other entities in global environmental arena, the GEF cannot achieve transformational change by itself**. A driver-focused approach to tackling environmental degradation naturally requires strong engagements with many partners with a diversity of skills.

35. **The GEF will forge close relationships with national and local governments.** National and local governments have a central role and responsibility for the country's environment through the negotiation of international environmental agreements, as well as through decisions on national targets, plans, policies and regulations. GEF government counterparts play a key role in mobilizing partners, such as peer agencies, nationally and sub-nationally, as well as private sector and civil society stakeholders operating in key sectors. They should also seek to support more cross-country partnerships, regionally and globally, as well as those based on ecosystem geographical configurations. These partnerships will be critical to enhance the driver-focus approach of GEF-funded projects and programs identified through the National Portfolio Formulation Exercises (NPFEs), through National Dialogue Initiatives (NDIs), and through specially tailored project design exercises. Through these processes, the GEF can help build environmental considerations into other key ministries' decision-making processes, especially finance, planning, transport, energy, water and agriculture.

36. **The GEF's engagement with the private sector will be further strengthened**. There are compelling reasons why engaging the private sector is a high priority in addressing global environmental challenges. The private sector dominates the socio-economic sphere, and therefore limited public sector resources need to be better utilized to redirect private sector activities towards environmentally sustainable approaches. Private enterprises, which are the dominant source of economic activity, must be encouraged to pursue commercially viable activities that also generate global environmental benefits. A comparative advantage of the GEF relative to other institutions lies in its ability to provide grant funding which can be targeted to provide much needed enabling policy support and help de-risk investments, thereby helping to alleviate systemic barriers to private investment.

37. **The GEF will seek a stronger engagement with civil society organizations in the global environment arena.** Since its inception, the GEF has put in place a number of mechanisms and polices to facilitate the participation of civil society in its work. GEF's experience is that working with civil society often can help enhance the impact and sustainability of its interventions. The GEF will seek to further strengthen its work with CSOs, including indigenous peoples, in recipient countries and internationally to develop knowledge that will have impact on key drivers and jointly create a platform for actions. In order to enhance the GEF's ability to make science-based solutions, the GEF will partner with research institutions and other academic thought leaders, and will strive to incorporate scientific findings into project design, ensuring the highest impact possible.

38. **The GEF will continue to strengthen its focus on gender mainstreaming and women's empowerment.** The importance of gender equality in environmental management policies and programs has been recognized in a wide range of forums. The GEF recognizes that gender equality is an important goal in the context of projects that it finances, because it can help to advance both the GEF's objectives of attaining global environmental benefits and those related to gender equality, equity and social

inclusion. By making sure that GEF interventions act as agents of change in addressing environmental challenges, positive benefits to both women and men can generally be accrued. Special emphasis will be made in conducting gender analysis as part of socio-economic assessments to ensure that intervention design is gender sensitive. Further, gender sensitive indicators and sex-disaggregated data will be used in GEF projects to demonstrate concrete results and progress related to gender equality.

B. IMPROVING OPERATIONAL EFFICIENCIES

39. **The GEF will intensify its efforts to improve the efficiency of its operations.** Even with a dedicated focus on improving project cycle efficiencies during GEF-5, project processing times have not significantly improved in recent years. Detailed analysis by the IEO suggests that the time between Council approval of a project and its endorsement by the CEO remains persistently high, with a significant share of projects exceeding the current 18-months target.

40. **Improved efficiency will require efforts from all GEF stakeholders, including countries, implementing agencies and the GEF Secretariat.** GEF project preparation is inherently subject to "parallel project cycles," as GEF projects in most implementing agencies are subject to the agency's "regular" project cycle requirement in addition to the specific requirements applicable to GEF projects that are derived from the GEF's focus on funding global environmental benefits and other GEF policy requirements regarding, for example, safeguards, monitoring and evaluation, gender and co-financing. The GEF will seek project cycle improvements that balance the need for standardized minimum requirements across GEF agencies—increasingly important as the GEF partnership has grown—necessary to ascertain that GEF objectives are being met, with a need for allowing implementing agencies and countries design projects in a time and cost-effective manner.

C. STRENGTHENED RESULTS MANAGEMENT

41. **It is vital that the GEF further strengthens results management.** Ultimately, what matters for the GEF is the achievement of global environmental benefits. This is the relevant measure of success for the conventions that the GEF serves as financial mechanism, for the donors that provide the funding, and for recipient countries. Consequently, a results focus must be present throughout the GEF's operational cycle. Significant changes are needed in the GEF's results management systems to enable it to improve its effectiveness and to target its scarce resources more strategically.

42. **Certain issues will receive special attention in the strengthening of the GEF's results framework:**

- ***Measure what matters.*** Focusing on a select set of core indicators measured uniformly will result in a more streamlined and effective results management system. It will also help to aggregate indicators at different levels—across countries, regions, programs and institutional portfolios. Choosing the right set of core indicators will strengthen the ability to manage for results. An initial attempt has been made through the establishment of a high-level corporate results framework for the GEF-6 period, but additional improvements are needed. There is a need to improve the GEF's project management information system. Strengthening the results management system would need strong collaboration of country and implementing partners, and would need to carefully weigh the benefits against any additional cost in terms of increased complexity of the results management system.

- ***Close the feedback loop.*** The feedback loop that links the lessons learned from the GEF's past decisions—from both completed and on-going projects—needs to be strengthened. Lessons learned from the implementation of the Integrated Approach Pilots will be particularly carefully

monitored. Monitoring and learning from results will inform future strategy development and priority-setting, project design, implementation and evaluation, with the results again feeding back into the cycle.

43. **Complementing enhanced results management will be a focus on strategically generating knowledge.** The potential audience for GEF knowledge products extends well beyond the GEF partnership. Lessons learned through GEF-funded interventions can guide other investments by bilateral funds, major foundations, private sector, and national financial institutions, as well as the work of civil society. Thus, the GEF will aim to use knowledge as a lever to mobilize investments in those interventions that have the highest potential to deliver significant global environmental benefits. GEF will also seek to further support South-South knowledge exchange of successful and potentially replicable experiences among GEF recipient countries.

List of Acronyms

ABNJ - Areas Beyond National Jurisdiction

CEO - Chief Executive Officer

CHUEE - China Utility Energy Efficiency

CBD - Convention on Biological Diversity

CSO - Civil Society Organization

DDT - Dichlorodiphenyltrichloroethane

EbA - Ecosystem-based Adaptation

FAO - Food and Agriculture Organization

GEF - Global Environment Facility

GDP - Gross Domestic Product

GHG - Green House Gas

IAPs - Integrated Approach Pilots

IEA - International Energy Agency

IFC - International Finance Corporation

IEO - Independent Evaluation Office

IUCN - International Union for Conservation of Nature

IPCC - Intergovernmental Panel on Climate Change

IPCC's AR5 - International Panel on Climate Change 5th Assessment Report

LDCF - Least Developed Countries Fund

LPI - Living Planet Index

NAP - National Adaptation Plan

NDI - National Dialogue Initiative

NPIF - Nagoya Protocol Implementation Fund

ODS - Ozone Depleting Substances

IMO - International Maritime Organization

OPS - Overall Performance Study

PES - Payments for Ecosystem Services

POPs - Persistent Organic Pollutants

REDD - Reducing Emissions from Deforestation and forest Degradation

SCCF - Strategic Climate Change Fund

STAP - GEF's Scientific and Technical Advisory Panel

UNDESA - United Nations Department of Economic and Social Affairs

UNCCD - United Nations Convention to Combat Desertification

UNEP - United Nations Environment Programme

UNDP - United Nations Development Programme

UNFCCC - United Nations Framework Convention on Climate Change

WBG - World Bank Group

WRI - World Resources InstituteUNFCCC - United Nations Framework Convention on Climate Change

WBG - World Bank Group

WRI - World Resources Institute

Notes

[1] Rockstrom, J. et al. 2009. A safe operating space for humanity. Nature 461:472-475.
[2] World Wide Fund for Nature. 2006. Living Planet Report 2006. World Wide Fund for Nature, Gland, Switzerland.
[3] *Ibid*.
[4] **See IPPC Assessment Report 5, 2014.** The report from IPCC's Working Group I notes that "Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century". IPCC, 2013: Summary for Policymakers.
[5] IPCC Assessment Report 5, Working Group III
[6] IPCC Assessment Report 5, Working Group III
[7] See http://www.wri.org/resources/maps/global-map-forest-landscape-resoratin-opportunities
[8] Excluding peat. See van der Werf, G.R. et al. 2009. "CO_2 emissions from forest loss." Nature Geoscience 2:737-738.
[9] Peters, G. P. et al. 2012. "Rapid growth in CO2 emissions after the 2008-2009 global financial crisis." Nature Climate Change 2:2-4.
[10] Friedlingstein, P. and I. C. Prentice. 2010. "Carbon-climate feedbacks: a review of model and observation based estimates." Current Opinion in Environmental Sustainability 2:251-257.
[11] FAO, 2012. The State of World Fisheries and Aquaculture 2012. FAO, Rome.
[12] Hypoxia and Nutrient Reduction in the Coastal Zone Advice for Prevention, Remediation and Research: A STAP advisory document, September 2011
[13] Global Biodiversity Oulook 3 p. 35 and Selman, M and S. Greenhalgh (2009), *Eutrophication: Sources and drivers of Nutrient Pollution*. WRI Policy Note, Washington, D.C.
[14] Calculations from FAO. 2012. FAOSTAT. Rome: FAO.
[15] Land-use projections are highly sensitive to the projections for climate change, population growth, dietary changes (as average real incomes increase, and as the global population ages) and, in particular, agricultural yield increase. For example, the OECD Environmental Outlook project in its base scenario that the global agricultural area will peak in 2020 at about 54 million km2 and decline thereafter, yield improvements –while lower in the future than in the past—will nevertheless eventually reduce the demand for agricultural land.
[16] IPCC (2014).
[17] Kharas, H. 2010. The Emerging Middle Class in Developing Countries. OECD Development Centre Working Paper No. 285, 28: http://www.oecd.org/dataoecd/12/52/44457738.pdf
[18] Dobbs et al, 2011. Resource Revolution. McKinsey and Company.
[19] Searchinger et al, 2013. The Great Balancing Act: installment 1 of "Creating a Sustainable Food Future." World Resources Institute, Washington, D.C.
[20] The Rise and Rise of Urban Expansion", Michail Fragkias, Karen C Seto, Global Change International Geosphere-Biosphere Programme, Issue 78, March 2010, cited in STAP, 2013. "Enhancing the GEF's Contribution to Sustainable Development." GEF/R.6/Inf.03.
[21] United Nations Population Fund. 2007. *State of the World Population 2007: Unleashing the Potential of Urban Growth*, 55.
[22] *Global Trends in Renewable Energy Investment 2014*, Frankfurt School, FS-UNEP Collaborating Centre and Bloomberg New Energy Finance (2014). It should be noted that there is a sharp decline the technology costs of many renewable energy sources, in particular PV, so the world's installed PV capacity increased from 31 GW in 2012 to 39 GW in 2013, despite a 23% decline in the dollar value (to US104 million) of investments in solar energy.
[23] Moreover since 2008, the GEF has also been providing secretariat services to the Adaptation Fund that was established under the Kyoto Protocol.
[24] African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Food and Agriculture Organization of the United Nations, Inter-American Development Bank, International Fund for Agricultural Development, and the United Nations Industrial Development Organization.

[25] Conservation International and the World Wildlife Fund USA were accredited in November 2013. Several other agencies are currently in the process of accreditation under the Pilot, which is set to expire by the end of 2014.
[26] Including "countries in transition", i.e. countries emerging from the former Soviet Union. Council decisions are made by consensus. In the event of a vote, which has not happened to date, a double-majority (one-country-one-vote and weighted by donor contributions) applies.
[27] Excluding the approximately 16,000 micro-projects implemented under the GEF's Small Grants Program since.
[28] The Multilateral Aid Review (MAR) by the DFID, March 2011, U.K, and the Australian Multilateral Aid Assessment by Ausaid, March 2012.
[29] Consensus Statement from Global Scientists, Stanford University.
[30] "The GEF shall…fund programs and projects which are country-driven and based on national priorities designed to support sustainable development…" GEF Instrument Article 4.
[31]Global Environment Facility Evaluation Office. 2013. Fifth overall performance study of the GEF, First report: Cumulative evidence on the challenging pathways to impact. Global Environment Facility Evaluation Office, Washington, D.C.
[32] STAP, 2013. Enhancing the GEF's Contribution to Sustainable Development. GEF/R.6/Inf.03. Available at http://www.thegef.org/gef/sites/thegef.org/files/documents/GEF.R.6.Inf_.03_STAP%20Paper.pdf
[33] Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, para 5 and 10. This priority is also reflected in the Aichi target's Strategic Goal A "Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society". A number of targets under Strategic Goal B ("Reduce the direct pressures on biodiversity and promote sustainable use") support focusing on sustainable production in agricultural production (including fisheries).
[34] UNFCCC Article 2.
[35] Scheffer, M. et al, Early-warning signals for critical transitions. *Nature* 461, 53-59 (2009)
[36] Data through June 2013. Multi Focal Area Projects in GEF's portfolio. *OPS5 Technical Document 9.*
[37] The review also found that while some projects were designed merely to "bundle" multi focal area projects into a single project for apparent transactional convenience, this was only a small minority. The vast majority—close to 90 %—of all projects were explicitly designed to achieve objectives across several environmental domains. It should be noted, though, that "bundling" may also be a practical way to overcome challenges fragmentation GEF resources under its allocation system.
[38] An analysis of 98 randomly selected GEF-5 PIFs found that of those projects that targeted drivers (46 % of investments, by value), over two-thirds was designed to be at scale or scalable. In contrast, of the 54 % of investment that targeted pressures, only 8 % were designed to be at scale or scalable. As a result, half of approved investment in GEF-5 did not address drivers *and* was not designed to deliver scalable global environmental benefits.
[39] Brazil—National Biodiversity Project (GEF ID 58).
[40] *Conservation and Sustainable Use of the Gulf of Mannar Biosphere Reserve's Coastal Biodiversity*' project (GEF ID 634).