Revisions to the Project document per GEF Council Comments of May 1999 GEF Council Meeting

There were no comments received from GEF Council members suggesting any revisions or modifications to the project prior to endorsement.

The bilateral meeting of 16 March 1999 with the GEF Secretariat had recommended the project for endorsement pending receipt of a detailed description of activities in each demonstration site and relative budget including co-financing. In order to be responsive to the needs of the pilot countries and ports, the specific work programmes (action plans and programmes of action) and budgets for each site are not yet specified in the project document. They will be developed as one of the first activities of the project; this process is reflected in paragraph 101A of the project document.

UNITED NATIONS DEVELOPMENT PROGRAMME

Global Project with participation from the governments of:
Brazil, China, India, Iran, South Africa, Ukraine

12/10/99

Project Number: GLO/99/G31/A/1G/19

Project Title:
Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries

Project Short Title:
Global: Ballast Water Management

Estimated Start Date:
1 November 1999

Estimated End Date:
31 October 2002

Management Arrangement:
UN Agency Execution

Designated Institution:
N/A

UN Implementing Agency:
International Maritime Organization (IMO)

GEF Implementing Agency:
UNDP

Project Sites:
Sepetiba, Brazil; Dalian, China; Mumbai, India; Kharg Island, Iran; Saldanha, South Africa; Odessa, Ukraine; London, UK

Beneficiary Countries:
Brazil, China, India, Iran, South Africa, Ukraine

HQ PAC Approval Date: 5 October 1999
Program Officer: Philip Reynolds

Summary of UNDP and Cost-Sharing

UNDP:	Current	Previous	Change
TRAC (1&2)			
TRAC (3)			
Other (GEF)	$6,720,000		
Other			
Government	$0		
Financial Inst.	$0		
Private Sector	$0		
Sub Total	$6,720,000		
AOS:	$672,000*		
SOF 03 (TRAC)			
PPRR (3%)			
SOF 07			
GRAND TOTAL	$7,392,000		

Government	**(in-kind)**

ACC sector & sub-sector 08 Transport, 13 Health, 20 Environment 49 Water Transport/Shipping, 30 Disease Prevention & Control, 10 Envir. Policies Planning & Legislation, 20 Envir. Assessment And Monitoring	Primary type of intervention: 2.0 Direct Support 7.0 Advisory Services 14.0 Pilot and Demonstration
DCAS sector & sub-sector	Secondary type of intervention: 1.0 Institution building 7.0 Advisory Services 14.0 Pilot and Demonstration
Primary areas of focus/sub-focus 3.0 Envir. & Nat. Res. Sustainability	Primary target beneficiaries: 2.0 Target Organizations 3.0 Target place (envir. Habitat)
Secondary areas of focus/sub-focus 19.0 Promotion of Sustainable Natural Resources Management	Secondary target beneficiaries: 2.0 Government, non-government 3.0 Natural, man-made features

Brief Description:

The long-term objective of this project is to assist developing countries in reducing the transfer of harmful organisms from ship ballast water. The project will increase the extent to which ships calling on developing country ports adhere to the at present voluntary international Guidelines of the International Maritime Organization (IMO), and will assist developing countries in the development of programmes necessary to implement an anticipated ballast water annex to the MARPOL Convention (or a new Convention). Effective, country based Pilot Demonstration Projects at specified ports within six developing nations, representative of each global development region, will be supported. The countries include Brazil/port of Sepetiba, China/port of Dalian, India/ port of Mumbai (Bombay), Iran/Kharg Island, South Africa/port of Saldanha, and Ukraine/port of Odessa. Regional involvement will be effected through Regional Task Forces. Barriers to be overcome, as identified in the PDF-B project phase, include those of an educational, informational, technical, institutional, financial, political, cultural, and legal nature. There are six (6) major project objectives. The objectives address the need for effective project management and

3) the creation of effective ballast water management methodologies at the regional level and based on IMO Guidelines; and

4) the development of Decision Support Systems, a “tool kit” of ballast water treatment options, an array of management approaches developed during the three year GEF/UNDP/IMO project, and an effective communications system to rapidly communicate ballast water treatment methodologies and other ballast water management related information at the global level.

On Behalf of:	**Signature**	**Date**	**Name/Title**
UNDP	_____	_____	_____
IMO	_____	_____	_____

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ACRONYMS

APR	Annual Project Review
APO	Associate Program Officer
BDP	Bureau of Development Policy (of UNDP)
CPTF	Country Project Task Forces
CFP	Country Focal Point
CTA	Chief Technical Advisor
DSS	Decision Support System
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization (of the UN)
GDP	Gross Domestic Product
GEF	Global Environment Facility
GPTF	Global Project Task Force
IC	Incremental Cost as defined by the GEF
ICS	International Chamber of Shipping
IMO	International Maritime Organization
IUCN	World Conservation Union
IW	International Waters
LEARN	Learning Exchange and Resource Network
MARPOL	International Convention for the Prevention of Pollution by Ships
MEPC	Marine Environment Protection Committee of IMO
MLW	Mean Low Water
NGO	Non-Governmental Organization
NPPP	National Project Professional Personnel
NRC	National Research Council (of US)
PDF-B	Project Development Facility of the GEF
PAC	Project Appraisal Committee (of UNDP)
PSO	Port and Shipping Organization
OP	GEF Operational Program
PCU	Program Coordination Unit
PIR	Project Implementation Review
PPER	Project Performance and Evaluation Report
RPTF	Regional and Sub-Regional Project Task Forces
SIGGTO	Society of International Gas Tankers and Terminal Operators

Section A. CONTEXT

A.1 Setting

1. Global shipping moves approximately 80 % of the world's commodities. As the globalization of the economy continues, larger and faster ships make it possible for nations to keep pace with increasing demand for the rapid transportation of raw and finished products. In effect, technology is making it possible to reduce or eliminate the natural boundaries that have separated and helped maintain the integrity of natural systems for millennia.

2. While the elimination and shrinking of boundaries through technology have yielded enormous economic benefits, and while continued development of larger and faster ships may be indispensable to the growing volume of world trade, there has been a negative, and, until recently, largely unnoticed negative consequence. For as long as ships have transported goods between and among countries, species have been transported, both intentionally and unintentionally, into new environments. While many of these non-indigenous species introductions have been and continue to be innocuous, some have had disastrous economic and environmental consequences. Faster ships mean greater economy in the transport of goods. Unfortunately, faster ships and the consequent reduction in travel time between ports increase the likelihood of the survivability and "successful" introduction of potentially damaging non-indigenous species.

3. For many centuries ships employed solid materials (sand, rock, other terrestrial material) to ballast their ships. From about the 1880's onward, however, ships increased their use of water for ballast. The change came about due to the increasing problem of vessel instability resulting from the shifting of solid ballast during voyage, and increased reliance on steel-hulled vessels. Most vessels today carry ballast water that may be fresh, brackish or saltwater. Globally, it is estimated that about ten billion tons of ballast water is transferred each year, and that three to four thousand species are carried each day. Water taken on a vessel as ballast may contain algae, mollusks, fishes and plants. The negative consequences of introductions can take the form of negative and quite severe economic effects, disrupted ecosystems, and/or human and animal disease. An example of how a single disruption can result in a combination of economic, ecosystemic and human health consequences is offered by the introduction of toxin producing species such as certain dinoflagellates. Introductions of these dinoflagellates through ship ballast can and have had a negative effect on commercial and subsistence harvest of shellfish, have resulted in consequent negative effects on shellfish populations, and can have severe, even fatal effects on humans and animals.

4. For purposes of the remainder of this project document, ballast is defined as any solid or liquid placed in a ship to increase the draft, to change the trim, regulate the stability, or maintain stress loads within acceptable limits. The terms ballast, ballast water, or ballast water management will include the sediment that accumulates in ballast tanks, which may be, and often is, discharged with ballast water and contains high numbers of diverse, non-indigenous organisms. It will also include chain lockers and other locations

These studies, when taken together, demonstrate that there have been numerous and costly ballast water related introductions of non-indigenous organisms, and that these introductions are likely to increase unless there is a concerted, global effort to stem them. Following is a sample of verified and damaging introductions of non-indigenous species via the ballast water route:

- The introduction of the Eurasian zebra mussel (Dreissena polynorpha) in the North American Great Lakes, resulting in expenses of billions of dollars for pollution control and the treating of fouled underwater structures and waterpipes;

- the introduction of the American comb jelly (Mnemiopsis leidyi) to the Black and Azov Seas, causing the near collapse of the commercially important anchovy and sprat fisheries;

- the introduction of the Japanese brown kelp (Udaria pinnatifida) to Tasmanian waters, having detrimental impacts on the abalone and sea urchin fisheries;

- the appearance of South-East Asian dinoflagellates of the genera Gymnodinium and Alexandrum to Australian waters, introductions which can cause paralytic shellfish poisoning.

6. In addition to the verified introductions listed above, the introduction of vibro Cholera into Latin American waters, while not demonstrably linked to ballast water discharge, is indicative of the need to take measures to ensure that the spread of pathogenic bacteria and viruses through the ballast water route is minimized.

A.2 Previous Experience/Lessons Learned

7. The severe problems generated by each of these introductions led to specific actions to give ballast water transfer of exotic organisms higher priority and/or resulted in countries taking direct, unilateral actions to protect against future introductions. The United States, in direct response to the disastrous introduction of the zebra mussel into the Great Lakes ecosystem, has taken a legislative approach to stem the number of future introductions. Since 1993, the U.S. has required that the Masters of any vessel entering the Great Lakes choose from among three alternatives to assure that the introduction of unwanted organisms into the lakes will be minimized. These alternatives include an exchange of ballast water at sea beyond the U.S. Exclusive Economic Zone (EEZ), retention of the ballast water on board during the entire voyage, or the exercise of an environmentally acceptable alternative which must receive prior approval from the U.S. Coast Guard.

8. Other countries have also begun to take action. Israel requires that ships visiting the port of Eilat must exchange their ballast water outside the Red Sea, and ships visiting Israel's Mediterranean ports must exchange their ballast water in the Atlantic Ocean. In the early 1990's, Argentina began requiring that

transfer. Nor is there likely to be a single technological "fix" in the near term. There is at present no system or practice in use today that will totally prevent the introduction of unwanted non-indigenous aquatic species into port or estuarine waters. Further, there is no "off-the-shelf" technologies specifically designed for treating ballast water that are suitable for use on board ship without some vessel redesign and modification. Thus the issue to be addressed in the near term is one of taking actions to minimize the potential for transfer, a need that all observers agree is an urgent priority. Attempts to take such near term actions, and prepare for additional future measures, has become a priority for the IMO, the designated Executing Agency for this project.

11. Most nations agree that the most effective actions to minimize the negative effects of ballast water transfer will come from a coordinated, cooperative global approach rather than the establishment of a patchwork of individual regional and national actions. In response to this need for uniform action, the IMO, in 1993, adopted Assembly Resolution A. 774 (18). The Resolution states, inter alia, that "(T)the discharge of ballast water and sediment has led to unplanned and unwanted introductions of non-native plants, animals and pathogens that are known to have caused injury to public health and property and to the environment." The Resolution states further that "(T)the unwanted introduction of plants, animals and pathogens through the uncontrolled discharge of ballast water and sediment has important global implications that can be effectively, equitably and responsibly addressed through coordinated and cooperative action."

12. In 1997, the IMO Assembly adopted Resolution A.868 (20), which supersedes A.774 (18) and contains guidelines intended to limit the movement of organisms by ballast water worldwide. The Guidelines assist ship masters by, among other things, providing information on areas where the uptake of ballast water should be avoided, precautionary procedures that should be employed when taking on ballast water in shallow areas, ballasting with freshwater, discharging ballast water and sediments to on-shore facilities where available, and the exchange of ballast water in open ocean.

13. Due to the direct economic, environmental and human health effects associated with this issue, and since many scientists have concluded that biological science cannot predict with certainty whether a species that is environmentally benign in its native environment will continue to be benign when introduced to a new location, many observers conclude that a precautionary approach should be taken when considering measures to mitigate the potential for damaging exotic organism transfer. Consistent with these conclusions, the IMO has included a precautionary approach as part of its Guidelines.

14. While adherence to the IMO Guidelines would result in significant reduction in the threat posed by uncontrolled ballast water releases, compliance with the voluntary guidelines has not been encouraging. Consequently, the Marine Environment Protection Committee of the IMO is presently drafting a new Annex to the MARPOL or a new Convention, specifically for ballast water that, it is hoped, will be

designers about the need for a new generation of ships that will take into account the need for on-board ballast water treatment, an activity that will be undertaken by IMO, there is an immediate need to address the ballast water related concerns deriving from the present generation of ships.

16. Based on the difficulty of meeting all of the criteria mentioned above, the mid-ocean exchange of ballast water is at present the most reliable method of reducing the risk of harmful exotic organism transfers, and is likely to remain the most effective method at least over the short term. Compared with coastal waters, deep ocean waters contain fewer organisms, and many of those organisms that may be taken in with ballast water during open ocean exchange are often not able to survive in the coastal environment, and vice versa. There is ongoing research in several countries aimed at determining the array of treatment options that could elevate the level of certainty that unwanted organisms are not being transferred via ship ballast. The treatment options include, but are not limited to, the mechanical treatment of species in ballast (filtration, separation, sedimentation and flotation, pump velocity); physical treatment of species in ballast water (heat treatment, cooling treatment, radiation, ultrasonics, microwave, rapid pressure changes, electrical treatment, magnetic fields); chemical treatment of species in ballast water (chlorination, metal ions, ozone, hydrogen peroxide, oxygen deprivation, coagulants, pH adjustment, salinity adjustment, anti-fouling paints as ballast tank coating, organic biocides); and biological treatment of species in ballast water via bio-control.

17. There is consensus that unless all regions and countries act together, competition among ports, countries and regions will result in growing acrimony. Worse yet, a patchwork quilt of regulations could result in drift toward adoption of the lowest common-denominator approach to mitigate the growing number of serious economic, environmental and public health effects deriving form uncoordinated ballast water management. In addition, work undertaken during the PDF-B phase of this project (GLO/97/G41) demonstrated clearly that most developing countries are ill prepared to act on the issue of ballast water transfer. The barriers to action included, among others, poor awareness on the part of all segments of society including government officials. It was also ascertained that there is poor or no information about ballast water discharges taking place in national waters, poor or no integration of effort between and among government agencies and potentially affected constituencies, few or no existing regulations or presence of a legal framework that could incorporate necessary and appropriate regulations, low priority given to the issue because of competing demands, and, a consequence of the low priority given to the issue, few if any national resources committed to the effort.

18. The proposed GEF intervention, through the establishment of the envisioned pilot demonstration projects in six countries, would show how developing nations can marshal limited resources and implement IMO guidelines to protect their resources and people from the negative consequences of unwanted organisms deriving from unregulated ballast water discharges. Given the flexibility of IMO guidelines on ballast water, the breadth and nature of specific country/port actions within the pilot demonstration

calling on developing country ports adhere to the voluntary Guidelines of the IMO, and to an anticipated ballast water annex to MARPOL 73/78, enabling countries to ratify legally binding provisions that are being prepared. Effective, country-driven and country-based Pilot Demonstration Projects at specified ports within six developing nations, representative of each global development region, will be supported.

A.4 Strategy

20. There is general agreement on the need for a globally consistent approach to address the ballast water issue. Even in those countries that have begun implementing nationally based approaches for ballast water control, there is recognition that a globally consistent approach has to be pursued. There is also agreement that the IMO is the appropriate international organization to assume the continuing task of developing the necessary international, legally binding provisions that are likely to occur via an annex to MARPOL 73/78 (or a new Convention). IMO's Marine Environment Protection Committee and Ballast Water Working Group have made the ballast water issue a priority in their work and will also be of invaluable assistance to the work of the project. This objective would, among other things, create within the IMO in London, UK a Programme Coordination Unit (PCU) comprised of two (2) professionals with requisite administrative and technical support, and support from the permanent staff of the IMO. During the three-year period, the IMO would undertake to establish and sustain, in its London headquarters, the necessary mechanism to assist developing member states as they strive to meet their obligations under the expected mandatory IMO regulations. This mechanism will include at least one full time professional staff member. It is particularly important that IMO be centrally involved in the project as they create for the project, as noted by the STAP review, access to officials and programs in countries where many ships are registered, such as Panama, Liberia, and Norway, whose regulations, along with classification societies, will be crucial for the development of future regulations, even though they are not directly involved in this project.

21. While the IMO is committed to assisting in co-financing the creation of an effective project PCU in its London offices, and committed to an endeavor to sustain that presence after project completion, provision of information and development of pilot programs at the country and port level, the subject of this proposal, are *not* part of IMO's regular mandate. Without the GEF/UNDP/IMO intervention, the needs outlined in this project will not be met.

22. Work undertaken during the UNDP-GEF Project Development Facility (PDF-B: GLO/97/G41) phase of the project resulted in a finding that information about the dangers of ballast water transfer of non-indigenous organisms was poor to non-existent in many developing countries, and constituted a major barrier to action. Further, it was found that where information did exist, no single agency had been given or had assumed lead responsibility for work related to the ballast water issue. This combination of poor information and no delegation or assumption of leadership on the part of any specific agency makes it impossible to address the issue effectively or at all, and is seen as the single most important, early priority of the project to develop. One of the priority recommended barrier removal activities was the creation of a

single country actions were to lead to other nations using the lack of adequate ballast water management provisions to attract greater interest in their ports. Also, there will eventually be the need to bring about broader sectoral changes than are likely to be brought about in this series of pilot projects. Nonetheless, the project will have built in provision for the establishment of regional or sub-regional task forces, as deemed appropriate, to advise, learn from, and hopefully cooperate with work undertaken in each of the participating countries.

24. The most significant barrier to action on ballast water transfer identified within the PDF-B process, and by other observers, is the lack of information about the existence and potentially catastrophic consequences of the ballast water transfer of unwanted organisms. Without adequate information on the potentially serious and destructive non-indigenous introductions that may already have occurred, actions to remediate the problem will not be taken. The competition for scarce resources in developing economies is fierce. In this competition for limited resources, those issues that have overt, short-term consequences on populations receive priority. While the potential consequences of the unchecked transfer of unwanted organisms through ballast water transfer are fairly seen as a time bomb, it is not at this time perceived as such by many developing countries and by likely negatively affected constituencies within those countries. There seems to be little doubt that a massive outbreak of cholera would be devastating to the limited public health resources of developing countries. Further, ballast water related transfer of unwanted organisms can have disastrous consequences for the growing reliance of developing countries on aquaculture for export purposes and for helping ensure national food security. Seen in this context, it is not difficult to understand why information and education for government officials and all potentially affected stakeholders is a pre-requisite for project success.

25. The STAP reviewer states that he questions that this objective should take a port as well as country approach, and that the "key cases are still those in enclosed areas, the Great Lakes and the Black Sea." While this is true, most observers believe that open coasts are also at risk and thus abiding by the precautionary principle, a tenet of existing IMO based provisions and of the GEF Operational Strategy, would suggest the need to take open coasts into account. The STAP review states further that "A better approach may be to erect scenarios of relevant local issues one of which could be public health, one on a coastal sea-food related issue, and one say on coastal erosion which is an important function provided by natural ecosystems." While most of these are issues that are indeed likely to emerge as key issues to be addressed by participating countries and ports, it is country officials and an array of stakeholders at the local level that should attempt to undertake the necessary analysis. Lastly, the STAP reviewer observes that "Non-experts cannot do the assessment and making predictions of the impact of potentially thousands of species is almost impossible. Scenarios made by natural and social scientists may be an option." It is now explicit in Activity 2.1 that the best available natural and social scientists will participate. It is seen as important, however, to take full advantage of the knowledge base of local, affected interests who have are likely to have been experiencing the adverse results of ballast water introductions even though there

provision to avoid unwanted introductions by minimizing their risk of entry, establishment, and spread in country receiving waters while simultaneously minimizing impediments to trade.

27. A review of previous work is also suggestive of a number of key principles that should be adopted if a program of control is to be successful. First, emerging country strategies should be just that, i.e. country strategies should take a single national strategy approach to the ballast water transfer issue, taking into account the legitimate requirements of all stakeholders. Second, the emerging strategy must be generally consistent with IMO provisions. Third, the strategy must take into account the need to give special consideration to the protection of a country's most sensitive values at risk. For example, in some nations there are significant and highly valuable aquaculture ventures, which directly abut or are in close proximity to shipping lanes. Further, there are occasions when ballast water discharges in zones of high shellfish productivity can place entire local populations at risk from such threats as unintentional introductions as the dinoflagellate Gymnodinium catenatum, which are known to cause paralytic shellfish poisoning, other toxin producing algae which may result in harmful algal blooms, and Vibro cholerae, which affects vulnerable populations through consumption of infected seafood. It thus becomes necessary to have, as part of a country program of action, a process that will identify on an ongoing basis high risk species and organisms that would have particularly deleterious affects on the economy, environment or on human health. Fourth, it must recognize the importance for the dissemination and sharing of results nationally, regionally, and globally. Fifth, each country must act to name a Lead Agency for development of the program and assure that the formation of CPTFs (interministerial in nature), that will maximize the likelihood of eventual, successful program implementation. Sixth, it must make provision for the necessary, increased levels of information, education and training commensurate with the seriousness of the problem. Seventh, and finally, the program of action must make provision to identify and secure the necessary financial resources to complement UNDP/GEF funding and sustain the ballast water program after the life of the intervention.

28. There is at present no single treatment or procedure that can obviate the risk of the introduction of harmful non-native organisms via ship ballast water. Thus it is essential that, as each country experiments with what it deems to be the most appropriate array of control options, effective participating country monitoring be established to accomplish two objectives. First, monitoring will be important for each country to measure the extent of compliance with IMO provisions generally and country-specific guidelines. Without monitoring to inform of successful compliance, replication of project results may not be warranted. Second, country-specific monitoring of compliance can serve as an important research tool that can be used to assess the relative efficacy of ballast water treatment options in a variety of climates, ecosystems, multiple use zones, and development regions. Thus effective monitoring can both inform and form the ongoing effort to minimize the global risks associated with the ballast water transfer of non-native organisms.

30. Each participating country, given particular, important values they determine to be at risk, may choose to build in additional compliance and monitoring considerations.

31. Regardless of the monitoring system devised for use by each participating country, compliance can only be effective if ship masters know what is required of them and carry out the requirements. Thus there will be a need to develop manuals and other communications that will fully apprise shipmasters and appropriate port authorities of Guidelines and other requirements.

A.5 End of Project Situation /Project Beneficiaries

32. The **end of the project situation** can be summarized as follows:

- Strong and continuing presence of a ballast water management capacity in 6 pilot countries supported by the IMO through absorption of the PCU activities;
- A dramatic increase in the knowledge of the dangers of unmanaged ballast water discharges and remedies based on local port, country and regional settings that are consistent with IMO Guidelines;
- Increased public awareness and support for ballast water management approaches;
- A global resource information center located in the offices of the IMO with the capacity to undertake systematic and ongoing distribution of the latest and most effective approaches to ballast water management. The center would maintain existing and increase high quality, reliable data and information on ballast water related issues and approaches;
- Availability of a project developed and tested education and training programmes to increase knowledge of the ballast water issue and impart the knowledge, skills and attitudes required;
- IMO Coordination of a global network of the research efforts and experience of monitoring centres in relation to ballast water transfer;
- Increased levels of protection and conservation of habitats and species of global significance
- Protection of aquaculture resources in and around coastal areas where ballast water exchange takes place;
- Protection of commercial fishery and shellfish enterprises in and around coastal areas where ballast water exchange takes place;
- Adoption of common regional approaches based upon the GEF/UNDP/IMO project experience and approaches that are consistent with IMO Guidelines;
- Minimization of the loss of coastal biodiversity and degradation of coastal environments; and
- Informed and effective developing country participation in the ongoing global deliberations on the ballast water management issue.

33. Upon completion of the project the above mentioned results should create adequate conditions for the

institutional strengthening as a result of networking, training programmes and the provision of key items of equipment and in particular from the development of action-based Workplans. Proper and thorough threat analyses, legislative and regulatory reviews, environmental assessments and pre-investment studies should facilitate an increase in donor interest both during and after the life of the project.

35. The direct beneficiaries of the project will be:
    - Governments of the countries and region;
    - Country Focal Points;
    - Shipping companies and port authorities;
    - regional scientific and technical organizations concerned with ballast water management issues;
    - national, local and municipal governments in the area of participating ports and cooperating countries;
    - technical organizations, universities, research institutes and private sector organizations (tourism, aquaculture, fisheries, environmental consultancy firms, etc. in coastal areas;
    - non-governmental organizations concerned with environmental management and conservation of natural resources; and
    - IMO and its member states

36. The target beneficiaries will be:
    - the resident population of coastal regions, in particular women and children, who will benefit from improved water quality, reduction in health risk, enhanced fishery resources, recreational opportunities and strengthened protection and management of natural habitats;
    - fishermen whose livelihoods will benefit from the improved environmental quality as the result of the reduced transport of unintentionally introduced and damaging organisms to the receiving environment following implementation of new policies and investments;
    - commercial and artisanal aquaculture enterprises in the coastal areas;
    - future generations of the human population both within and beyond participating countries who will benefit from the reduction of threat posed by the continuing inability to properly manage ballast water practices and reduce the introduction of damaging, unintentionally introduced organisms; and
    - the world population at large which will benefit as a result of the experiences of the participating ports and countries.
    - Shipping companies and port authorities
    - The International Maritime Organization and its member states

A.6 Major Actors/Port Descriptions/Administrative Framework/Government Departments

include port administrations. The level of agreement required to ensure the participation of a port is thus no small feat.

39. A major concern posed by the unintentional introduction of marine non-indigenous species is that of human health. Most major port areas are also areas of high population density. Each of the port areas selected for the project has surrounding, large populations. These populations, particularly women and children, are vulnerable to severe disease epidemics such as cholera and typhoid. Coastal waters, which include those upriver which are tidal, may be used for bathing, laundry, and recreational purposes. Where contact with contaminated water occurs, the risk of disease is present. Other less direct vectors, such as the consumption of contaminated fish and shellfish, especially from wild stocks, may result in disease or death.

40. Taken together, the countries and ports selected for the project satisfy several other criteria. As a group they represent countries and ports from each GEF development region. Further, taken together they represent the full range of issues that need to be addressed in attempts to effectively manage the unintentional introduction of non-indigenous marine organisms. Taken together these ports host the full range of shipping activities – bulk carriers, ore, oil, and container vessels. They receive ships from virtually every country of the world. And, taken together, the experience of these countries and ports will yield country and regional benefits that will substantially mitigate the current level of threat that exists.

Sepetiba, Brazil

41. The Port of Sepetiba is located on the southern coast of Rio de Janeiro State and is immediately adjacent to Rio de Janeiro. Within 500 kilometres of the port is a concentration of industry and commerce that represents 70% of Brazilian GDP. Sepetiba's coal terminal has the capacity to handle 7,000,000 tons per year while its ore terminal has the capacity to handle 15,000,000 tons per year. The Port was constructed in 1982 to meet Companhia Siderurgica Nacional and Valesul's need to move bulk cargo from their plants and thus unencumber the Port of Rio de Janeiro.

42. According to an evaluation of ports done by Companio Docas do Rio de Janeiro, which acts as the Port Authority for the Ports of Rio de Janeiro, Sepetiba, Angra dos Reis, Niteori and Fornu, Sepetiba will become Latin America's largest, and the first Southern Atlantic Harbor to be a major cargo hub port capable of handling over 20 million tons of cargo per year. Additionally, it is equipped with modern port equipment and will be able to accommodate the latest generation vessels up to 8,000 TEUs. Sepetiba is intended to be a model port highlighting a concern with environmental management and the development of an Environmental Management Plan is an immediate Port priority.

43. The Ministry of the Navy is the key administrative entity in Brazil concerned with ballast water issues. The Ministry has been actively involved in ballast water issues in Brazil prior to the project and has been

45. In 1997, 51,525 vessels visited Dalian. 3,883 of those vessels were engaged in international voyages. About 5.5 million tons of ballast water was discharged in Dalian Port and its coastal waters in 1997. This ballast water came from ships visiting from Korea, Japan, Southeast Asia, with lesser amounts from North America, and Europe.

46. The area around the Port of Dalian includes fish and prawn farms. In 1993 and 1994 the prawn farming industry suffered severe losses due to an unknown bacteria or pathogens, and prawns died in great numbers causing a total loss of 3 billion yuan. While no direct correlation has been demonstrated between ship ballast water and losses to the fishing and prawn industry in the Dalian area, ballast water discharged at the port is within easy reach of farming areas. The proximity of Dalian to these valuable prawn farming areas is one of the reasons Dalian has been selected for inclusion in the project.

47. Key agencies connected to the ballast water issue in China, and for Dalian as a port included in the project, are The Harbour Superintendency Administration, the Frontier Health and Quarantine Authority, the Frontier Plant and Animal Quarantine Authority, and Port officials in Dalian.

Mumbai (Bombay), India

48. The port of Mumbai lies midway along the west coast of India, and possesses a deep harbour covering 400 square kilometers. The harbour is well protected by the mainland on its east and the Island of Mumbai to the west.

49. The Port of Mumbai is a fully integrated, multi-purpose port handling container, ro/ro, dry bulk, liquid bulk, and general cargoes. The total handling capacity of the port in 1997 was 33,727,000 tons.

50. Many Indian vessels sailing out of Mumbai have been carrying out ballast water tank cleaning at high seas on a tank-by-tank basis for years. The reason for such practice is that captains fear that mud and sediment mixed with ballast water would quickly settle and accumulate on the bottom of the ballast tank after being taken on board as ballast. Such practice may, however, help to reduce the possibility of the introduction of harmful organisms or pathogens, which live in shallow water or sediment. The Government encourages the practice of ballast water tank cleaning on the high seas and the Indian experience with this practice makes its participation an attractive one for this project.

51. Government authorities which will be involved with the project include the Directorate General of Shipping and Port Authority, under the Ministry of Surface Transport, the Environment Authority, under the Ministry of Environment and Forests, the Health Authority, under the Ministry of Health, and the Coast Guard under the Ministry of Defence. The Port Authority of Mumbai will also be involved in project implementation.

responsibilities of the NIOC. The main functions of maritime administration are the responsibility of the Ports & Shipping Organisation (PSO). Vessel Traffic Control and Port State Control is performed by PSO inspectors. Other departments and ministries with direct or indirect responsibilities regarding the ballast water issue include the Department of Environment, the Marine Environment Bureau, the Ministry of Jahad (fisheries), and the Oceanographic Commission. Iran, as part of the initial consultation during the PDF-B phase, is in the process of forming a ballast water Country Project Task Force (CPTF), which would function during project implementation.

54. The selection of Kharg Island as a demonstration site, aside from its general Gulf location and by virtue of its being the largest oil terminal in the Gulf, is due to the sensitive environmental nature of the Gulf. Gulf waters are shallow, have substantial marine biodiversity, high water temperature, and experience little exchange of water with surrounding marine areas through the Ormuz Strait.

Port of Saldanha, South Africa

55. The Port of Saldanha is the largest port in the southern part of South Africa and covers 7430 hectares of water area in Saldanha Bay. It is South Africa's deepest port. Located in the southwest of the country on the Atlantic Ocean, Saldanha Bay is considered by South African officials to be a highly sensitive environmental area due to intensive aquaculture activities occurring in the proximity of the port site and the surrounding area has been declared a "natural reservation" by the government.

56. The annual level of iron ore exports in 1996 was 19.2 million tons, with an expected level of at least 20 million tons per annum over the next five years. Crude oil is also imported and transhipped through the port, while general cargo consists of copper, zinc, lead, and phosphate. The break bulk general cargo facility (General cargo Quay) consists of a Quay 250 metres long and a storage capacity of up to 30,000 tons, both covered and open.

57. The environmental sensitivity of areas immediately surrounding the port, the substantial size of the port, its proximity to Cape Town, and the support of all relevant government agencies for its inclusion as a demonstration site within the GEF/UNDP/IMO project were all factors in the selection of the port to participate in this project.

58. Relevant governmental agencies which will participate in the project include the Department of Transport, the Department of Environmental Affairs and Tourism, the Department of Health, and PORTNET. PORTNET is a public company that is responsible for port management in South Africa. Its responsibilities include maintenance of basic port infrastructure, construction and maintenance of breakwaters, channels, basins, quay walls, roads and rails in the port area. It also provides marine and navigational assistance services such as pilotage and tug assistance. One of the most important roles of PORTNET is that of pollution prevention in port areas. In this respect PORTNET develops port

60. Odessa's location on the Black Sea, the site of a substantial GEF sponsored effort in the International Waters portfolio, makes it an important addition as a pilot demonstration site. Located on the northwestern shelf of the sea, the areas in close proximity of the port are important nursery and feeding areas for the Black Sea fishery.

61. The port includes seven facilities for handling dry-cargo, passenger traffic, oil, and container handling. The port has the capacity to handle up to 14 million tons of dry-cargoes and about 24 million tons of oil products per year. Port passenger capability is up to 4 million passengers per year. Entering, leaving and shifting of vessels is constant and assisted by pilot service whose technical facilities allow manoeuvring in poor visibility. The open storage area is 215 400 sq. m,, the warehouses area 78 800 sq. m., and the cargo storehouse can accommodate up to 13 500 tons at a storage temperature from 8^0 C up to -30^0 C. The port silo can store up to 60 000 tons of cereal product.

62. A list of handled cargo includes non-ferrous and ferrous metals, equipment, vehicles, chemical fertilisers (packed or in bulk), citrus fruits, bananas and other cargoes packed in bags, boxes, bags, barrels and containers.

63. While exact information on the amount of ballast discharge in the port are not available, calculations from the oil products sector is indicative of large volumes. More than 14,400,000 tons of oil and oil products were transited through Odessa oil terminal, and from this figure it is calculated that a total quantity of 5,489,000 tons of ballast water were discharged into and around the port area.

64. A significant part of Ukrainian port traffic is oriented towards Europe (14%), China (6%) and the largest part represents the exchanges and transit with CIS countries (42%). It may be therefore assumed that the largest amounts of ballast water discharged may originate from Europe and the Far East.

65. The Ministry of Transportation is the major regulatory body for shipping in Ukraine. It works through the State Department of Marine and River Transports (SDMRT). The SDMRT assumes the role of the Maritime Administration of Ukraine and acts as the administrator of IMO Conventions and other international legal instruments. The SDMRT also co-ordinates ports Harbour Masters and assumes the prerogatives of Port State Control. The Transportation Law of 1994 (No 232/94 -BP) empowers the Ministry of Transportation through the SDMRT to study and propose new and updated directives regarding national maritime policy, port development, shipping companies and shipyards and for the development of regulations to ensure ship safety and control marine pollution. The SDMRT and the Port of Odessa are fully supportive of and agreeable to participation in this project. As a result of Ukraine's participation in the PDF-B phase of the project there is now a ballast water Country Project Task Force (CPTF) comprised of federal and local officials and members of the research community.

- coordination of activities by the lead agency for the development of port and country-specific programs of action;
- provision of free access to information required for the implementation of the Project; and
- authorization, subject to adequate prior notification and formal clearance, of *site* visits by technical experts to support the implementation of the project.
- provision of financial and other support to the activities of the Project, especially for all local currency expenditure;
- testing of ballast water treatment and management approaches (including heat, chlorine, dilution, etc.);
- identification of non-indigenous species in ship ballast water;
- inventories of (native) coastal flora and fauna;
- academic research on subjects related to ballast water issue;
- application of IMO guidelines by shipping companies and port authorities;
- country coordination between different government agencies with interest in the ballast water issue (environment, transport, fisheries, etc.)

Section B - STRATEGY FOR USE OF UNDP RESOURCES

B.1 UNDP's Mandate

UNDP, with its emphasis on sustainable human development, is uniquely suited as GEF Implementing Agency for this project. Environmental protection is clearly a matter of survival for coastal dwellers-particularly the poor. This project fits within the broader context of coastal management aimed at the protection of coastal and marine resources and insuring that healthy aquatic environments are conserved. Sustainable livelihoods are promoted by the proper management of shipping, tourism, fisheries and other coastal activities. Women also play major roles in the economic systems of coastal areas and fisheries.

68. The GEF has directly acknowledged the importance of the ballast water issue, and its intent to support activities related to mitigation of ballast water related transfer of organisms, in its Operational Strategy. The Strategy states that "(A)activities related to abatement of pollution from ship-based chemical washings and interventions against the transfer of noxious, non-indigenous species in ballast water are priorities for the GEF because they are virtually unaddressed problems." The proposed project represents an important step in realizing this stated GEF programmatic intent.

69. The proposed project is also consistent with Operational Program #10 of the GEF, the Contaminants-Based Operational program. The long term objective of OP #10 is to "…develop and implement international waters projects that demonstrate ways of overcoming barriers to the use of best practices for

70. Linkages with the UNDP/GEF initiative IW:LEARN will provide for sharing of project results and replication of successful practices in other developing countries. In addition, the UNDP-GEF Train-Sea-Coast or similar program will provide the capacity for preparing and adopting high quality training materials to support country based efforts.

B.2. Strategy and Approaches for the Use of UNDP Resources

71. The basic strategy of this project is to utilize UNDP resources to identify and implement generic, country and port specific ballast water control activities and create the conditions necessary to replicate those ballast water control activities globally. UNDP resources will also be used in barrier reduction efforts that include those of an educational, informational, technical, institutional, legal, financial, and cultural nature. A fundamental part of the strategy to bring about replication of project results is the funding of a global information resource center. The center will be located in the offices of the IMO, and its work of assisting developing nations in more effectively managing ballast water control will be continued by the IMO after the three years of the GEF/UNDP/IMO project. UNDP resources will be used further to create improved linkages within the global community the result of which will be an enhanced technical capacity for dealing with pollution and coastal management problems in coastal regions; an effective regional network of Governmental representatives, scientific and other experts and non-governmental organizations; and a willingness of the international community to assist in the efforts to protect coastal resources and populations from the adverse effects of unintentionally introduced non-indigenous species and organisms.

72. This strategy will be successful only if all major players (IMO, the shipping industry, participating ports and governments, Governments and ports of the region, the Program Coordination Unit, multilateral and bilateral donors and NGOs) work together in a concerted effort.

73. The strategy of the GEF/UNDP/IMO project is a key objective of the overall strategy of the GEF International Waters Program and will be brought about through technical assistance, capacity building, enhanced regional cooperation, the recruitment of donors, and preparation of investments.

Host Country/Port Options

79. Consistent with IMO guidelines on ballast water management, there already exist a number of "Good Practice" measures that will be essential to the Project as a whole and, in particular, at each of the demonstration sites. These criteria will be used as the benchmarks, inter alia, against which the implementation of the project can be evaluated. Criteria will include:

- improved knowledge of the ballast water issue

than vessels in coastal voyages), or it may wish to attempt to assess the relative risk of vessels to valuable resources and apply the program selectively to those which are deemed of highest risk.

82. The uniform application option offers the advantages of simplified program administration in that there are no "judgement calls" to be made or justified by the host country/port regarding which vessels must participate and which need not. In addition, the system requires substantially less host country/port information management demands in that no risk assessment process is needed. Finally, it offers more protection from unanticipated invaders, and overall protection is not dependent upon the quality of a decision support system which may not be complete. The primary disadvantages of this approach are: 1) additional overall cost to vessels which otherwise might not need to take action, and 2) more vessels will be involved in undertaking the measures, and therefore the host country/port will need to monitor compliance from a greater number of vessels.

83. Some nations are experimenting with systems to allow more selective applicability based upon risk assessments because this approach offers to reduce the numbers of vessels subject to requirements and monitoring. This prospect of reducing the numbers of ships to which the program applies is especially attractive to nations that wish to eliminate introductions of target organisms such as toxic dinoflagellates entirely. More rigorous measures can be justified on ships deemed to be of "high risk" if fewer restrictions are placed on low risk vessels. However, this approach places commensurate information technology and management burdens on the host country/port and its effectiveness depends on the quality of the information supporting it. The approach also may leave the country/port vulnerable to unknown risks from non-target organisms.

84. Whether a host country/port chooses the uniform or selective applicability approach, it can undertake measures to simplify record-keeping and monitoring of compliance. The country/port may for example, utilize the IMO reporting form to keep vessel-specific information, and institute a random sampling method to spot check reliability of these records.

Risk Assessment Methods: Decision Support Systems

85. For countries/ports which choose the selective approach, it will be essential that each demonstration site establish an organized means of evaluating the potential risk posed by vessels entering their port. Only in this way can they take the most appropriate decision regarding any required action concerning that vessels' ballast water discharge. This evaluation is commonly known as a Decision Support System or DSS.

86. "Good Practice" measures will include options at each of the three phases in the continuum of ballast water management. These measures, part of a generic "tool kit", would be implemented when indicated by

87. The DSS can be a quite basic system operated on a fully manual basis. Then, as information is assembled over time and the knowledge of those operating the system increases, the DSS can become progressively more comprehensive and sophisticated.

88. The DSS is a management system that provides a mechanism for assessing all available information relating to individual vessels and their individual management of ballast water so that, based upon assessed risk, the appropriate course of action can be taken.

89. Issues incorporated into a DSS, at a minimum, would include, among other things:

- vessel details, for example how much ballast water is on-board
- where the vessel may have been re-ballasted
- a review of any ballast water arrangements, documentation such as a Ballast Water Management Plan
- intent of the vessel re. discharge of ballast water
- knowledge of the port of uptake
- circumstances of uptake

90. Initially the DSS will be a relatively simple system based on known information. As the amount of information increases the system can be incrementally improved. The relative level of initial simplicity will make it possible for any port to adopt its own system of best practices and to improve upon those practices as increased amounts of information become available.

91. It is also expected that elements of the DSS, relying as it will on tracking of ships through various ports to determine level of risk, will complement work that will likely be the subject of another GEF intervention to develop a demonstration marine electronic highway in some of the world's busiest shipping lanes (e.g. Malacca Straits, Bosphorus).

Strategy: Other Aspects

92. The GEF intervention would also serve to inform other developing coastal nations to the existence of the problem, resources that are at risk, and measures which, when applied globally and strategically, will reduce the serious global, economic environmental and public health effects of unmanaged ballast water discharge. An important additional contribution of the proposed project would be to enable participating countries, and countries engaged at the regional level, to both form and inform ongoing deliberations aimed at developing a legally binding agreement related to the ballast water issue. At present, limited information concerning the issue and the consequent lack of focus on its importance are detrimental to such developing country involvement in current negotiations. The absence of the proposed GEF intervention would with

water control strategies that will need to be developed within neighboring countries, the region as a whole, and globally. Sustainability in this context will be a function of two interactive forces. First, the high likelihood of legally binding ballast water related provisions in the near future will force country, regional and global actions through IMO, and 'internalization' of support to the new Annex or Convention into IMO's regular activities. Second, the existence of the pilot project results that are the focus of this project document will make it possible for countries and regions to have identified, prior to the implementation of mandatory standards, the elements of sustainability for country level ballast water control programs. This experience can be used effectively to help inform discussions regarding the mandatory provisions that are now being discussed and actually help form the content of that expected agreement. And third, the project will result in the creation of documented and tested strategies and practical materials, including adaptable training packages, that will assist countries to remove barriers to effective ballast water management.

94. At the country level the project will focus on building institutional capacities to sustain the country specific ballast water control action. As stated by the GEF STAP reviewer economic benefits are generated by natural, undisturbed marine ecosystems and these ecosystems are at risk from certain species introduced by ballast water. Project capacity will be created through effective educational, informational, and participatory programs at the country level, programs that will involve all affected constituencies including the shipping industry itself. The inclusion of country specific compliance and monitoring programs will enable the development of feedback loops to measure and inform project decisions during the course of activities and will serve to shape future work in the ballast water control area. The monitoring efforts will, in total, make possible successful replication of successful practices both within and outside of the region.

95. The explicit commitment made by each of the six participating countries and the project related political and administrative structures within the countries are the best indication of the sound foundation for this project. Project implementation through a PCU located within the offices of the IMO, and the IMO commitment to continue the work of the project after the three-year period, is one step toward guaranteeing that the activities and *support* systems established by the project will endure beyond the life of it.

96. Project sustainability is strongly enhanced by the support and active participation of the IMO. IMO's Committees (such as the Marine Environment Protection Committee (MEPC) and its Ballast Water Working Group, whose membership is comprised of representatives from member states, NGOs and the private sector, make important contributions to the work of IMO. For new conventions, a draft instrument is prepared. This draft is submitted to a conference to which delegations from all states within the United Nations, including states that are not IMO members, are invited. The conference adopts a final text that is submitted to governments for ratification. Implementation of the requirements of a convention is mandatory for countries that are party to the convention. A comprehensive anti-pollution convention

Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries" at its meeting in Cape Town, South Africa on 29 and 30 July 1998. The GPTF is comprised of representatives of the IMO, the MEPC of the IMO, participating countries, non-governmental organizations, and the private sector, most particularly representatives of the shipping industry. The GPTF has clearly and explicitly recognized that the marine environment and the living resources which it supports are of vital importance to mankind; that invasions of non-indigenous harmful aquatic organisms and pathogens in new regions are occurring at increasing rates, threatening the conservation and sustainable use of aquatic biodiversity; and that besides ecological consequences, severe economic losses and threats to human health are being faced in many countries resulting in national unilateral actions to avoid further threats. The GPTF has recognized that measures to improve the management of ballast water discharges must be consistent with the paramount need to ensure the safety of seamen. The GPTF has strongly endorsed the GEF ballast water project and has called upon the IMO, developing and industrialized countries, the private sector, and the NGO community to support the work of the project.

98. The countries' ownership of the project is also shown by the endorsement of the GEF Project Brief. Participating countries have committed significant financial resources in support of the project, including in-kind contributions (e.g., Intersectoral coordination secretariats, salaries for their staff members). The governments will also provide scientific expertise to the PCU from the national organizations and meeting space as required. The countries expect that the results and recommendations of the pilot demonstration projects will be translated into real actions and responses on both a national, regional, and global basis. This is reflected in those objectives of the project which address program coordination, global communication, and regional and intersectoral coordination and involvement.

B.4 Special Consideration

99. For the sustainability of the project, special consideration will be given in following each country's national practices. For example, an explicit aim of the project is to develop Decision Support Systems, "tool kits", and best practices. The project, through the PCU and the CPTFs, will ensure that these mechanisms, while having generic components, are also adapted to each country's practices.

100. In addition, the project will also give special consideration to having broad coverage of people participating in meetings and workshops. In particular, the project encourages involvement of the private sector, NGOs, and women.

101. It is expected that the cooperating governments will be able to provide office, meeting facilities, local logistical support and in kind support from government officials.

choice of uniformly applying IMO guidelines or selective applicability. The actual arrangements for the preparation of country work programmes and budgets are imbedded in the first three objectives (activity 1.B.1 –country based communication workshops, Activity 2.2 country workshop on community assessment, information, participation and education strategies leading to action plan, Activity 3.4 preparation of a country work plan to devise generic, country and port-specific programmes of action). One of the first activities of the CTA will be to visit each pilot country and participate in the country workshops mentioned above and to help the Country Project Task Force develop its work programme and budget. These Country Work Programmes and budgets will be reviewed and approved by the Global Project Task force and financial allocations will be made by IMO to the country focal points accordingly.

Section C - DEVELOPMENT OBJECTIVE/IMMEDIATE OBJECTIVES/OUTPUTS/ACTIVITIES

C.1 Development Objective

102. The Development objective of this project is to assist developing countries in reducing the transfer of harmful organisms from ship ballast water. The project will increase the extent to which ships calling on developing country ports adhere to the at present voluntary international Guidelines of the International Maritime Organization (IMO), and will assist IMO and developing countries in the development of programs necessary to implement an anticipated ballast water annex to the MARPOL Convention.

C.2 Immediate Objectives

103. The immediate objectives of the GEF/UNDP/IMO Project are:

Objective 1A: Ensure effective project coordination and support (information, communications, expert assistance, program implementation capacity and evaluation and assessment) through establishment of an IMO based Program Coordination Unit (PCU).

104. There is general agreement on the need for a globally consistent approach to address the ballast water issue. Even in those countries that have begun implementing nationally based approaches for ballast water control, there is recognition that a globally consistent approach has to be pursued. There is also agreement that the IMO is the appropriate international organization to assume the continuing task of developing the necessary international, legally binding provisions that are likely to occur via an annex to MARPOL 73/78. IMO's Marine Environment Protection Committee and Ballast Water Working Group have made the ballast water issue a priority in their work and will also be of invaluable assistance to the work of the project. This objective would, among other things, create within the IMO in London, UK a PCU comprised of two (2) professionals, an Associate Program Officer (provided a donor can be found), requisite administrative and technical support, and backstopping support from the permanent staff of the IMO. The work of the PCU would be supported by the GEF/UNDP/IMO project over the three years of the project on a declining basis. After the three-year period, the IMO would undertake to establish and sustain, in its London headquarters, the necessary mechanism to assist all member states as they strive to meet their obligations under the expected mandatory IMO regulations. It is particularly important that IMO be centrally involved in the project as they create for the project, as noted by the GEF STAP review, access to officials and programs in countries where many ships are registered, such as Panama, Liberia, and Norway, whose regulations, along with classification societies, will be crucial for the development of future regulations.

105. While the IMO is committed to assisting in co-financing the creation of an effective project PCU in its London offices, and committed to an endeavor to sustain that presence after project completion, provision of information and development of pilot programs at the country and port level, the subject of this proposal, are not part of IMO's mandate. Without the GEF intervention, the needs outlined in this project proposal will not be met. The relationship between IMO regular activities and the GEF/UNDP/IMO project appears as Annex II.

Objective 1B: Identification of, and provision of resources for, the establishment of a Lead Agency in each of the six participating countries; creation of Country Project Task Forces (CPTF)

106. Work undertaken during the PDF-B phase of the project (GLO97/G41) resulted in a finding that information about the dangers of ballast water transfer of non-indigenous organisms was poor to non-existent in many developing countries, and constituted a major barrier to action. Further, it was found that where information did exist, no country's single agency had been given or had assumed lead responsibility for work related to the ballast water issue. This combination of poor information and no delegation or assumption of leadership on the part of any specific agency makes it impossible to address the issue effectively or at all, and is seen as the single most important, early priority of the project to develop. One of the priority recommended barrier removal activities was the creation of a lead agency that would be given the overall responsibility for development of the port-specific and country-specific strategies that are

107. The most significant barrier to action on ballast water transfer has been identified within the PDF-B process, and by other observers, is the lack of information about the existence and potentially catastrophic consequences of the ballast water transfer of unwanted organisms. Without adequate information on the potentially serious and destructive non-indigenous introductions that may already have occurred, actions to remediate the problem will not be taken. The competition for scarce resources in developing economies is fierce. In this competition for limited resources, those issues that have overt, short-term consequences on populations receive priority. While the potential consequences of the unchecked transfer of unwanted organisms through ballast water transfer are fairly seen as a time bomb, it is not at this time perceived as such by many developing countries and by likely negatively affected constituencies within those countries. There seems to be little doubt that a massive outbreak of cholera would be devastating to the limited public health resources of developing countries. Further, ballast water related transfer of unwanted organisms could have, and already has had, disastrous consequences for the growing reliance of developing countries on aquaculture for export purposes and for helping ensure national food security. Seen in this context, it is not difficult to understand why information and education for government officials and all potentially affected stakeholders is a pre-requisite for project success.

108. The GEF STAP reviewer stated that this objective should take a port as well as country approach, and that the "key cases are still those in enclose areas, the Great Lakes and the Black Sea." While this is true, most observers believe that open coasts are also at risk and thus abiding by the precautionary principle, a tenet of existing IMO based provisions and of the GEF Operational Strategy, would suggest the need to take open coasts into account. The STAP review states further that " A better approach may be to erect scenarios of relevant local issues one of which could be public health, one on a coastal sea-food related issue, and one say on coastal erosion which is an important function provided by natural ecosystems." While most of these are issues that are indeed likely to emerge as key issues to be addressed by participating countries and ports, it is country officials and an array of stakeholders at the local level that should attempt to undertake the necessary analysis. Lastly, the STAP reviewer observes that "Non-experts cannot do the assessment and making predictions of the impact of potentially thousands of species is almost impossible. Scenarios made by natural and social scientists may be an option." It is now explicit in Activity 2.1 that the best available natural and social scientists will participate. It is seen as important, however, to take full advantage of the knowledge base of local, affected interests who have or are likely to have been experiencing the adverse results of ballast water introductions even though there reports may at first be anecdotal.

109. The PCU must assume an important role in the activities related to this objective through the provision of international linkages and it must begin to build capacity within the IMO to make possible replication at the global level of successful experiences within these pilot demonstration sites. The participating countries are likely to have few if any materials to address or describe problems associated

participating countries create and adapt course packages which, together, will form a targeted education and training programme for ship masters, owners and operators or their agents as well as port and harbour authorities

Objective 3: Develop and implement generic and, to the extent possible, country and port specific programmes defining the measures necessary to increase compliance with IMO provisions, with special attention to achieving protection of identified, country-specific most sensitive values at risk.

110. The essence of this project is twofold. First it is intended to result in the development of a generic, developing country based, ballast water management strategy which can be adopted in other countries. Second, and to the extent possible, the project will facilitate initial work toward the development of country and port specific programs, including national legislation, to achieve effective ballast water management consistent with IMO provisions. Work undertaken in the PDF-B phase of the project and a review of existing ballast water control programs is indicative of the overall strategy that should form the basis for program development. The strategy should be one that seeks to avoid the adverse economic, environmental, and human health impacts of unwanted, ballast water transported non-indigenous organisms. The strategy should make provision to avoid unwanted introductions by minimizing their risk of entry, establishment, and spread in country receiving waters while simultaneously minimizing impediments to trade.

111. A review of previous work is also suggestive of a number of key principles that should be adopted if a program of control is to be successful. First, emerging country strategies should be just that, i.e. country strategies should take a single national strategy approach to the ballast water transfer issue, taking into account the legitimate requirements of all stakeholders. Second, the emerging strategy must be generally consistent with IMO provisions. Third, the strategy must take into account the need to give special consideration to the protection of a country's most sensitive values at risk. For example, in some nations there are significant and highly valuable aquaculture ventures, which directly abut or are in close proximity to shipping lanes. Further, there are occasions when ballast water discharges in zones of high shellfish productivity can place entire local populations at risk from such as unintentional introductions as the Dinoflagellate Gymnodinium catenatum, which are known to cause paralytic shellfish poisoning, other toxin producing algae which may result in harmful algal blooms, and Vibro cholerae, which affects vulnerable populations through consumption of infected seafood. It thus becomes necessary to have, as part of a country program of action, a process that will identify on an ongoing basis high risk species and organisms that would have particularly deleterious affects on the economy, environment or on human health. Fourth, it must recognize the importance for the dissemination and sharing of results nationally, regionally, and globally. Fifth, each country must act to name a Lead Agency for development of the GEF/UNDP/IMO program and assure that the formation of CPTF s (interministerial in nature), which will

112. There is at present no single treatment or procedure that can obviate the risk of the introduction of harmful non-native organisms via ship ballast water. Thus it is essential that, as each country experiments with what it deems to be the most appropriate array of control options, effective participating country monitoring be established to accomplish two objectives. First, monitoring will be important for each country to measure the extent of compliance with IMO provisions generally and country-specific guidelines. Without monitoring to inform of successful compliance, replication of project results may not be warranted. Second, country-specific monitoring of compliance can serve as an important research tool that can be used to assess the relative efficacy of ballast water treatment options in a variety of climates, ecosystems, multiple use zones, and development regions. Thus effective monitoring can both inform and form the ongoing effort to minimize the global risks associated with the ballast water transfer of non-native organisms.

113. At the very least, project related compliance and monitoring should and will involve, first, an examination of the ship's logs and records to ascertain the location and the amount of ballast water that has been loaded and where and how much of the ballast was changed. Second, project related compliance and monitoring should include provision for the continuous recording of basic physical/chemical water quality parameters such as turbidity, salinity, temperature, concentration of dissolved oxygen, and pH. Each of these parameters can be monitored by automatic, online equipment that provides continuous readouts for subsequent data storage or for direct transmission to shore. Alternatively, these parameters can be measured concurrently by handheld equipment at regular intervals. According to an estimate made by the U.S. NRC, the cost of these systems would be US $500 to US $2500 per unit, not including installation costs.

114. Each participating country, given particular, important values they determine to be at risk, may choose to build in additional compliance and monitoring considerations.

115. Regardless of the monitoring system devised for use by each participating country, compliance can only be effective if ship masters know what is required of them and carry out the requirements. Thus there will be a need to develop manuals (Activity 2.5) and other communications that will fully apprise ship masters and appropriate port authorities of Guidelines and other requirements. Activities under Objective 4 would be under the general direction of respective participating country CPTFs.

Objective 5: Make provision, as appropriate, for the creation and operation of Regional or Sub-Regional Task Forces to increase regional level awareness, cooperation and eventual replication of project results across the region.

116. The countries and ports that have chosen to participate in the project are taking an important first step

Objective 6: Identify opportunities for increased project self-financing during the project, financing after the three year project timeframe, and the initiation of a Donor Conference to secure the necessary additional financing to sustain implementation of IMO, participating country, regional and global efforts to implement IMO provisions.

C.3 PROJECT COMPONENTS/OUTPUTS/ACTIVITIES

OBJECTIVE 1. PROJECT COORDINATION

Objective 1.A Program Coordination Mechanism

The first step towards developing country and port specific ballast water management strategies for replication at regional level will be to create an IMO based Program Coordination Unit (PCU) to bring cohesiveness and consistency to project implementation through the establishment of a global support system.

Outputs: Project Coordination and Management Mechanism established and functioning; particular emphasis to be placed on effective coordination between and among port officials, country representatives, regional organizations, and the private sector.	**Success Criteria**: Global Project Task Force established and operational; PCU is established and operational; Global information center established and functioning at PCU Lead country agencies and personnel identified and committed	
Activities:	**Responsible Parties**	**Associated Internat'l Partners**
Activity 1.A.1 Recruit and hire the Chief Technical Advisor (CTA), Technical Advisor (Communications Specialist), Associate Programme Officer (subject to finding a donor), requisite administrative and technical support, and short term miscellaneous consultants.	IMO, UNDP	
Activity 1.A.2 Create and organize the PCU to facilitate and coordinate the work program of the participating countries, and serve as the communication vehicle between the participating countries, regional and sub-regional task forces, and other nations and entities engaged in work related to ballast water transfer.	IMO	
Activity 1.A.3 Review existing and, as necessary, prepare new case studies demonstrating the economic, environmental and public health dangers associated with the transfer of non-indigenous species via ballast water and distribute same to participating countries as part of the necessary program of education for government officials and the full range of affected interests.	PCU, CFPs, consultants	IMO-MEPC, US, Australia, other countries with BWM experience
Activity 1.A.4 Create a Global Project Task Force (GPTF) comprised of senior representatives from IMO, UNDP, and each participating country lead agency and representatives of NGOs, industry and other donors. The GPTF would meet at the direction of the CTA and assist in the formulation and ongoing review of the project and project results. It	PCU, CFPs, UNDP, IMO	ICS, Intertanko, SIGGTO, Friends of the Earth etc.

would also work closely with the PCU to determine appropriate education and training programs for government officials.		
Activity 1.A.5 In consultation with the respective GEF country focal points and other government officials as necessary, determine a lead agency for each participating country and a senior official within those lead agencies to assume leadership of project activities and represent the participating country in meetings of the Global Project Task Force	PCU, CFPs	Various national agencies
1.A.6 Establish the PCU based global resource information communications center. Develop the coordination, information and evaluation mechanisms to ensure that the results and conclusions of pilot demonstration activities lead to relevant actions to be taken on the part of the Global Project Task Force, Regional Task Forces, Country Project Task Forces, and relevant intersectoral coordinating bodies (including ministries, other government agencies and private sector)	PCU, CFPs, RPTFs, CPTFs	Various national agencies
Activity 1.A.7. Make provision for evaluation and assessment of project results.	IMO, UNDP, consultants	

Objective 1.B Establish Six Country Lead Agencies and Convene Initial Communications Workshops in Each Country

Country Lead Agencies will be responsible for coordinating development of country work plans and implementation of activities for the CPTF, project coordination within the country and at the regional level, development of relevant recommendations, guidance and strategy and project implementation and stakeholder involvement at the country level.

Outputs: Establishment of six Lead Agencies one in each participating country; Six workshops to determine country-specific communications needs; communications needs identified for each of the participating countries.	**Success Criteria**: Lead Agencies established and functioning; Country Focal Points (CFP) named and assistants designated; Six country communications plans available to the PCU.	
Activities:	**Responsible Parties:**	**Associated Internat'l Partners**
Activity 1.B.1 Establish six Lead Agencies and name a Country Focal Point from that agency in each of the six countries.	PCU CFPs	
Activity 1.B.2 Plan and hold six country based communications workshops to develop communications approaches, including education and awareness activities with the assistance of the GPTF and senior representatives from participating countries.	PCU, Country Lead Agencies CFPs	
Activity 1.B.3 Establish a well-functioning system of communications and data transfer within and among the countries and the PCU using Internet	PCU, IMO, CFPs, Country Lead Agencies	

COMPONENT 2. COMMUNITY ASSESSMENT, INFORMATION, EDUCATION, AND PARTICIPATION

Objective 2. Increase Knowledge of and Potential Solutions for Ballast Water Related Transfer of Non-indigenous organisms

Work undertaken during the PDF-B identified lack of information on dangers posed by unmanaged ballast water releases as the most significant barrier to action. Without knowledge, there can be no action. The substantial port and country based informational, educational, and participation programs to be undertaken will help to set priorities and actions for addressing the ballast water issue.

Outputs: Establishment of six Country Project Task Forces (CPTFs). Informational (2 way), educational and broad participatory workshops in the six participating ports/countries. Six community assessment reports. Development of six port/country specific workplans to assure adequate level of ongoing assessment, information dissemination, education activities, and broad participation by affected interests. Creation of a targeted education and training program for shipmasters, owners and port officials.	**Success Criteria:** CPTFs led by sufficiently senior Country Focal Point and comprised of interministerial representatives to maximize implementation of project results; Workshop attendance characterized by broad participation and resulting in a high quality workshop product; High quality, specific, actionable workplans devised to accommodate port and country specific needs; Project resources made available are sufficient to the full implementation of the workplan; targeted education program is rated as successful by participants and replicated elsewhere.	
Activities:	**Responsible Parties**	**Associated Internat'l Partners**
Activity 2.1 The PCU, working with each CPTF, will provide resources to identify existing relevant and define potential additional community assessment, education and information activities. These activities must involve the best available expertise from both the natural and social sciences and the full range of affected interests, including NGOs and the private sector.	PCU/Communications Advisor/CPTFs/Communications Consultants	UNDP Country Offices and UN and non-UN Organizations as relevant
Activity 2.2 PCU provision for a workshop in each of the participating countries, under the direction of the CPTFs, to define and evaluate community assessment, information, participation and education strategies, comment upon the project generally, and help shape the country action plan.	PCU/Communications Advisor/CPTFs/ Communications Consultants	UNDP Country Offices
Activity 2.3 Based upon the results of the workshop in Activity 2.2, and reviews of activities undertaken in Activity 1.B.2, devise workplans for the community assessment, information, participation, and education activities of the project.	PCU/Communications Specialist/Communications Consultants/CPTFs	UNDP Country Offices
Activity 2.4 Provide the resources necessary to implement the workplans referenced in Activity 2.3, including resources for the creation and implementation of educational programmes for government officials	PCU/CPTFs	

and identified stakeholders.		
Activity 2.5 Create generic and adaptable versions of course packages which will form a targeted education and training programme for ship masters, owners and operators or their agents as well as port and harbour authorities. This programme should make participants fully aware of the ballast water generally and, more specifically, of their obligations under current and emerging International Guidelines. Using the TRAIN-X methodology, the PCU Communications and Training expert will engage a consultant to assess potential course development units and/or delivery units in the six pilot countries and run one or two two-week course development workshops which will enable them to develop adaptable training packages using TRAIN-X methodology. The initial delivery of each training package will serve as the validation of the course so fellowships are also covered for this. Validated course packages will be sent to training units in each pilot country for adaptation according to the TRAIN-X methodology and subsequent national and regional delivery.	PCU/Communications Specialist/ Consultants/RPTFs/CPTFs	

COMPONENT 3. DEFINITON OF SPECIFIC MEASURES

Objective 3. Development of Generic and Country Specific Programs to Define the Measures necessary to Increase the rate of Compliance with IMO Guidelines and to Protect Identified, Country Specific Most Sensitive Values at Risk.

If countries are to protect themselves from the dangers associated with the uncontrolled release of ballast water they must undertake to define the nature of the threat, the values that are at risk from the threat, and devise generic and specific measures to protect natural resources and human health. The activities within this objective are intended to facilitate this process.

Outputs: Lead Agencies or Ministries designated to assume responsibility during and post-project. CPTFs established and functioning in an interministerial context. Completed threats analysis. Information gaps identified and closed. Most sensitive port and country values at risk identified. Country and port specific action plans developed. Legislation and regulatory frameworks updated. Tested public information and participation strategies to address the ballast water issue.	**Success Criteria:** Agency/Ministry budgets reflect the ballast water priority. Interministerial committees functioning and effective (implementation enhanced). Agency/Ministry budgets adjusted to carry on post-project activities. National and port practices and capacities for effective ballast water management strategies evaluated. Port and country specific ballast water related workplans funded and implemented. Legislation and regulatory structures adjusted and functioning. Assessment and participation activities evaluated for effectiveness.	
Activities:	**Responsible Parties**	**Associated or Potential Internat'l Partners**
Activity 3.1 Create and provide resources for Country Project Task Forces (CPTFs) in each country. CPTFs would be interministerial in nature, would meet at the call of the Lead Ministry or Agency and chaired by a senior representative of it, and be responsible for project development, implementation, and general project oversight within each participating country. (This includes Assistants to Focal Points in Lead Agencies)	PCU/CFPs/GPTF	IMO/UNDP Country Offices
Activity 3.2 Review existing information regarding the quantity and quality of current ballast water discharges in domestic waterways and determine the existing and potential threats posed by unchecked ballast water transfer on the economy, environment, and on human health.	PCU/CPTF/CFPs	IMO/UNDP Country Offices/WHO/FAO
Activity 3.3 Ascertain existing information gaps and define the activities needed to fill those gaps.	CPTFs/PCU/CFPs	IMO/UNDP Country Offices
Activity 3.4 Based upon a review of results from Activities 3.2, 3.3, 2.3, 2.4, and other sources as deemed necessary, prepare a workplan to devise generic, country and port specific programme of action.	CPTFs/PCU/CFPs	IMO/WHO/FAO

Activity 3.5 Provide support for the review of existing, pertinent domestic legislation and regulatory authorities and make recommendations to bring about the necessary changes to effect the country programme of action.	CPTFs/PCU/CFPs/ consultants	
Activity 3.6 Provide the resources necessary to implement the programme of action referenced in activity 3.4, including resources for specific assessment and participation initiatives for the selected Pilot Demonstration Sites and for the creation of a public participation programme aimed at key stakeholders at each site.	CPTFs/PCU/CFPs Consultants	UNDP Country Offices

COMPONENT 4 PROJECT MONITORING AND COMPLIANCE

Objective 4. Generic and Country Specific Compliance and Monitoring Programs to Ensure Compliance with IMO Provisions and Protection of Most Sensitive Values

The most effective workplans, legislation and regulation will be of limited effect if there is not a parallel effort to ensure compliance through effective monitoring and compliance strategies. It will not be possible to eliminate all risks all of the time. Thus it will be important to focus on the identification of and protection for the most sensitive values at risk.

Outputs: A generic compliance and monitoring plan. Country and port specific monitoring plans. Designated port and country agency/ministry for compliance and monitoring responsibility. Generic and country and port specific plans made available to other developing nations.	**Success Criteria:** The generic plan is being put into use by increasing numbers of developing nations. Elements of the country and port specific compliance and monitoring plans are being adopted by other developing nations. Most sensitive values at risk are being successfully protected against unintentionally introduced non-indigenous organisms.	
Activities:	**Responsible Parties:**	**Associated Internat'l Partners**
Activity 4.1 Support for the CPTFs to develop generic and, as appropriate, country and port specific compliance and monitoring programmes.	PCU/Participating countries and ports (CPTFs)/Shipping Industry/Consultants	Intertanko, SIGGTO, ICS, etc.
Activity 4.2 Support to create generic, port and country-specific manuals and appropriate reporting forms for ship masters and all other relevant persons or entities detailing in clear fashion expectations with regard to ballast water management.	PCU/Participating Ports and Countries (CPTFs)/Shipping Industry	US, Australia, etc.
Activity 4.3 Support to recruit and train lead agency compliance and monitoring officials for placement at the designated pilot project ports.	PCU/CPTFs/GEF Focal Points/Consultants	
Activity 4.4 Support to purchase, test and bring about refinements in analytical equipment capable of monitoring basic physical/chemical water quality parameters, and to train personnel in their use.	PCU/CPTFs	

COMPONENT 5 REGIONAL TASK FORCES

Objective 5. Create Regional Project or Sub-Regional Project Task Forces

Creation of effective and active regional task forces helps to reduce the extent to which competing ports in the region may adopt the lowest common denominator in regard to ballast water controls to lure business away from pilot demonstration sites. Regional Task Forces are instrumental in efforts to replicate project results beyond the participating countries.

Outputs: Creation of a regional support base for the work of the project. Increased likelihood of regional cooperation on the ballast water issue. Creation of mechanisms to ensure regional level replication of project demonstration site results. Facilitated process of regional level involvement in the implementation of IMO ballast water related provisions. Creation of an ongoing, ballast water related communications capacity at the regional level.	**Success Criteria:** Demonstration sites are protected against competing regional ports abiding by poor to no ballast water management practices. Project developed, generic best management practices, training manuals, decision support systems, and 'tool kits" are employed by other regional countries. A formalized communications system through identified lead agencies is in place and functioning at the regional level. Project regions are an increasingly forceful and effective presence in international. IMO for a where the ballast water issue is being discussed and policy formulated.	
Activities:	**Responsible Parties**	**Associated Internat'l Partners**
Activity 5.1 Create as appropriate and in cooperation with participating countries, six regional or sub-regional project task forces (RPTFs) to support and learn from the experience of the participating countries and ports.	PCU/Participating Countries (Lead Agencies)/GEF Focal Points	Governments in regional countries
Activity 5.2. Provide for RPTF meetings and ensure effective communications between RPTF and the project	PCU/Participating Countries (Lead Agencies)/GEF Focal Points/Port Officials	Governments in regional countries

COMPONENT 6 PROJECT SELF-FINANCE

Objective 6. Identify Opportunities for Project Self-finance and Initiate a Donor Conference

The project must be instrumental in securing post project financing for the participating countries and other developing countries to continue to build the necessary capacity to adhere to IMO provisions on ballast water management.

Outputs: Specific list of potential donors made available to participating countries and to other countries through the RPTFs. Donor Conference. Specific plan to assist developing countries follow-up on identified donor opportunities.	**Success Criteria:** Identification of specific interested donors. Active participation of a broad array of donors at the donor conference. Active participation of developing countries from all regions. Specific commitments of donors (including IMO) to continuing post project work as a result of the donor conference and effective follow-up.	
Activities:	**Responsible Parties**	**Associated Internat'l Partners**
Activity 1. Review the opportunities for self-finance of project components at regional and national levels, pinpointing the potential economic sources and mechanisms.	PCU/RPTFs/CPTFs	IMO, UNDP, WB, Regional Development Banks, National and International Donors, private sector
Activity 2. Sponsor a donor conference using the on-going GEF project as leverage for the creation of necessary additional donors and the securing of loans and confirm with IMO their support for the continuation of post-project activity from their regular budget.	PCU	IMO, UNDP, WB, Regional Development Banks, National and International donors, private sector

Section D. INPUTS

116. It is expected that inputs to the Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries project will come from the following sources: (1) the six Participating countries, (2) UNDP/GEF, (3) IMO, and (4) other donor countries/organizations.

D 1. Government Inputs

117. Government Inputs are of three kinds: baseline activities, direct project support, and in-kind contributions. As specified in the GEF/UNDP/IMO Project Brief (Annex I C of Project Brief), the contributions for national baseline activities for the region total approximately $37,000,000. Baseline funding includes activities that the governments implement nationally for ballast water related issues, with primarily national benefits. Direct contributions include funding for project related monitoring, research, training, and public involvement. In-kind contributions consist of government provision of office space, facilities, personnel, and other actions directly supporting the GEF/UNDP/IMO project. Non-Direct and In-kind contributions from each country have been estimated as follows:

Brazil	$ 155,000
China	$ 380,000
India	$ 920,000
Iran	$ 900,000
South Africa	$ 145,000
Ukraine	$ 300,000
Total	$2,800,000

D 2. GEF/UNDP Inputs

118. The Global Environment Facility (GEF) has allocated US$7,392,000 for this project, for a three-year period from October 1999 to July 2002. UNDP is the GEF Implementing Agency for the project; IMO is the UNDP Executing Agency for the project.

119. Objectives of the Project implemented by UNDP through the GEF/UNDP/IMO project and executed by IMO are:

Objective 1A:	Project Coordination Mechanism
Objective 1B:	Lead Agency Designation
Objective 2:	Increase Knowledge of generic, country, and port specific dangers of, and effects already realized as a result of, unmanaged ballast water discharge.
Objective 3:	Develop Generic and Specific Measures to Increase Compliance with IMO

D 4. IMO Inputs

121. IMO will provide staff for professional back-stopping of the project activities (such as through IMO professional staff associated with work of the MEPC), office space, and support for the project related work of the IMO MEPC. IMO will also provide resources for the full cost of the Technical Advisor (Communications Specialist) from the project AOS (estimated at $400,000 for three years). Provided a donor can be identified, an Associate Expert will be attached to the PCU. Last, IMO will provide assistance in securing the cooperation of IMO member states and the shipping industry. The total value of IMO in-kind inputs is estimated at $639,000.

D5. Private Sector Inputs

The Private sector will provide approximately $392,000 in support through its participation in national, regional and global project activities (task force participation, demonstration activities, awareness raising, etc.).

Section E. RISKS/PRIOR OBLIGATIONS

E 1. Risks

122. The long-term success of the global effort to reduce the risks of the introduction of non-native organisms, through the establishment and support of pilot demonstration projects as envisioned in this proposal, depend, inter alia, on the political willingness of the participating countries to follow through on commitments undertaken to successfully implement the project. The latter in turn depends on changing economic, political and social conditions at the individual country level. For this project, the political factor appears to introduce a moderate risk at this time. While each of the countries has made a specific commitment to the project during the PDF-B phase, it is clear that the issue of ballast water transfer does not at present command the level of attention and concern that would enable it to compete successfully with other developing country priorities.

123. One assumption of the project is that as each participating country becomes increasingly aware of the economic, environmental and human health threats that are presented by the unchecked transfer of ballast water, their commitment will grow and lead to a sustainable effort. This assumption is grounded in the expectation that the approval by IMO of a legally binding MARPOL annex/new Convention on ballast water management will provide a framework for the sustainability of project activities both at IMO headquarters, within the participating countries, and globally. At the same time it is likely that the increased awareness and capabilities provided through this GEF/UNDP/IMO intervention will themselves increase the likelihood of such approval and enhance the relevance of the eventual annex to developing countries.

point is the US $ 60,000 allocated for an IMO-financed workshop on ballast water control and management for participants from the ten countries bordering on the Black Sea and the Caspian Sea scheduled for September 1999. Notwithstanding the fact that the IMO has indicated its willingness to do so, and as the IMO appears to be the international entity best suited to the task, this risk is seen as moderate. This moderate level of risk is due to significant project communications and coordination challenges, competing economic and political demands within the countries, rivalries that may exist between and among countries in the region, and the temptation to abide by a lower standard for ballast water exchange to gain economic advantage. The successful adoption and implementation of legally binding IMO provisions would reduce the risk considerably, and successful implementation of the project would create in each development region models to learn from and the beginning of a regional approach to the ballast water discharge issue.

E 2. Prior Obligations and Prerequisites

125. The participating governments have taken a number of preparatory measures, including budgetary allocations for the government contribution in kind, and have agreed to designate a Lead Agency and senior official as a Country Focal Point (CFP) in each country. The remaining obligations and/or prerequisites for Project work to commence are as follows:

- designation by the PCU and CPTFs of technical experts who will work on various aspects of the project, together with their responsibilities and reporting requirements (see relevant sectors of Section D); and
- provision of the in-kind contributions to activities as specified in this document and agreed by the GEF Council.

These prerequisites will be formalized in a Memorandum of Understanding to be signed between IMO and the Government. The project document will be signed by UNDP and UNDP assistance to the project will be provided subject to UNDP receiving satisfaction that these prerequisites have been fulfilled or are likely to be fulfilled for the individual countries. When the anticipated fulfillment of these prerequisites fails to materialize, UNDP may, at it's discretion, either suspend or terminate the activities of this project in the country concerned

Section F. INSTITUTIONAL FRAMEWORK/ COORDINATION/ADMINISTRATION

F 1. Institutional Framework

126. The Global Project Task Force (GPTF) will be the principal decision-making and supervisory body of the Project. The GPTF will consist of UNDP, IMO, and Country Focal Points (CFPs) from each of the demonstration countries. The GPTF will be responsible for approving strategic decisions and annual work plans, setting program direction, reviewing progress, and assist in identifying new and additional funding related to project implementation. Representatives of private sector and other organizations that contribute

development and implementation of the GEF/UNDP/IMO project in accordance with the rules and procedures of IMO based on directions provided by the GPTF.

128. Regional Project Task Forces. The programs that will be developed in each of the six participating countries and ports should to the extent possible be replicated across the region and discussion would include the necessary sectoral changes required to bring about a regional approach to action. The formation of the RPTFs is intended to facilitate this process. As appropriate RPTFs would be chaired by the participating country project focal point.

129. National Institutions. Country Project Task Forces (CPTF) in each of the participating countries will provide guidance, ensure coordination and implement country and port specific actions consistent with implementing Project objectives. CPTFs will be directly responsible for the development and implementation of the Program at the National level. The CPTF will be chaired by the CFP in each country. The CPTF will have a full time Assistant to the CFP who will report to the CFP and keep the CFP fully apprised of project activities at the country and port level. The CFP will serve as the national liaison with the PCU.

130. Project Implementation
The International Maritime Organization (IMO) served as Executing Agency during the PDF-B phase and will continue to serve as Executing Agency for the UNDP Project.

Section G. MONITORING, REPORTING AND EVALUATION

131. In line with UNDP procedures, the project will be subject to tripartite review (TPR) once every twelve months. On these occasions, the CTA will prepare an updated work plan, PPER, and Annual Project Report (APR) and formulate recommendations for eventual adjustments of strategies and activities. A Project Performance and Evaluation Report (PPER) shall be prepared at least two months in advance of the TPR to allow review by UNDP prior to the meeting. The project will also participate in the GEF/UNDP/IMO Project Implementation Review (PIR) process.

132. Working in concert with appropriate scientific and technical institutions and government agencies among the participating countries and in line with emerging GEF policies, the project will develop a set of "indicators" to track the short and long-term impacts of this project. Key indicators will include process (e.g., policy, legal, institutional, etc. reforms), stress reduction (e.g., reduced pollutant loads, fishing pressure, etc.), and environmental status (e.g., cleaner waters/sediments, restored habitats, sustainably managed fisheries, etc.).

Section H. LEGAL CONTEXT

136. For all six participating countries, Brazil, China, India, Iran, South Africa, and Ukraine, this Project Document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between these governments and the United Nations Development Program, signed by the parties previously. The host countries' implementing agencies shall, for the purpose of the SBAA, refer to the governments' cooperating agencies described in that Agreement.

137. The following types of revisions may be made to this Project Document with the signature of the Sustainable Energy and Environment Division of BDP/UNDP only, provided he or she is assured that the other signatures of the Project Document have no objection to the changes:

1. Revisions in, or addition of, any of the annexes of the Project Document.
2. Revisions that do not involve significant changes in the immediate components, objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation.
3. Mandatory annual revisions that rephrase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility.

Section I. WORKPLAN

Project Title: **Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures n Developing Countries**

Project No: **GLO/99/G31/A/1G/19**

Description/Activity	Act. No.	1999		2000												2001												2002									
		N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
PERSONNEL																																					
Chief Technical Advisor	1.A.1																																				
Technical Adviser (Communication specialist)	1.A.1																																				
Consultancies: Short-term; Miscellaneous	1.A.1																																				
Consultancies: Resource Information Centre	1.A.6																																				
Consultancies: Development of Train-X methodology for project	2.5																																				
Consultancy: Prepare ship manuals	4.2																																				
Administrative Assistant	1.A.1																																				
MONITORING AND EVALUATION																																					
Evaluation: TPR, APR missions	1.A.7																																				
PCU travel and DSA	1.A.1																																				
Travel in connection with the establishment of RPTF	5.1																																				
Travel, Donor Conference	6.1																																				
CONTRACTS																																					
Prepare case study	1.A.3																																				
CPTFs assessments	2.1																																				
Formulate country workplans	2.3																																				
Support for implementing country workplans	2.4																																				
Support for CPTFs including hiring of assistants	3.1																																				
Review ballast water situation	3.2																																				
Filling gaps in knowledge at country level	3.3																																				
Prepare national action programme	3.4																																				

Description/Activity	Act. No.	1999		2000												2001												2002									
		N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
Review of existing legislation/regulations	3.5																																			
Support for implementing national action programmes	3.6																																			
Compliance and monitoring programme	4.1																																			
Prepare reporting forms and communication manual for ship' crews	4.2																																			
Training of officials in monitoring and compliance	4.3																																			
Training in the use of monitoring equipment, case studies	4.4																																			
Course development workshop	2.5																																			
National training of shipmasters, owners, Port Authorities, etc.	2.5																																			
MEETINGS																																				
Meetings, GPTF	1.A.4																																			
Meetings, communication workshops	1.B.2																																			
Meetings, participatory workshops	2.2																																			
Meetings, CPTF	3.1																																			
Meetings, evaluation, RPTF	5.2																																			
Donor Conference	6.2																																			
EQUIPMENT																																				
Expendable equipment (PCU)	1.A.2																																			
Purchase of equipment, monitoring instruments	4.4																																			
MISCELLANEOUS																																				
Sundries																																				
Reporting costs																																				
Miscellaneous																																				

Section J. PROJECT BUDGET

Project Title: Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries

Project No: GLO/99/G31/A/1G/19

BUDGET (Figures in US dollars)

Budget Line	Description/Activity	Act. No.	Total	1999	2000	2001	2002
10.00	**PERSONNEL**						
11.00	**International Experts**						
11.01	Chief Technical Advisor	1.A.1	450,000	37,500	150,000	150,000	112,500
11.02	Technical Adviser (Communication specialist)	1.A.1	-				
11.50	**Consultants**						
11.52	Consultancies: Short-term; Miscellaneous	1.A.1	195,000	10,000	65,000	65,000	55,000
11.53	Consultancies: Resource Information Centre	1.A.6	50,000		50,000		
11.54	Consultancies: Development of Train-X methodology for project	2.5	50,000		25,000	25,000	
11.55	Consultancy: Prepare ship manuals	4.2	50,000		25,000	25,000	
13.00	**Administrative support personnel**						
13.01	Administrative Assistant	1.A.1	180,000	15,000	60,000	60,000	45,000
15.00	**Monitoring and evaluation**						
15.01	Evaluation: TPR, APR missions	1.A.7	80,000		20,000	20,000	40,000
16.00	**Mission costs**						
16.01	PCU travel and DSA	1.A.1	120,000	10,000	40,000	40,000	30,000
16.02	Travel in connection with the establishment of RPTF	5.1	60,000		60,000		
16.03	Travel, Donor Conference	6.1	50,000				50,000
19.00	**SUB-TOTAL PERSONNEL COMPONENT**		**1,285,000**	**72,500**	**495,500**	**385,000**	**332,500**
20.00	**CONTRACTS**						
20.01	Prepare case study	1.A.3	100,000		50,000	50,000	
20.02	CPTFs assessments	2.1	150,000		50,000	50,000	50,000
20.03	Formulate country workplans	2.3	60,000		60,000		
20.04	Support for implementing country workplans	2.4	665,000		220,000	220,000	225,000
20.05	Support for CPTFs including hiring assistants	3.1	480,000		160,000	160,000	160,000

Budget Line	Description/Activity	Act. No.	Total	1999	2000	2001	2002
20.06	Review ballast water situation	3.2	130,000		130 000		
20.07	Filling gaps in knowledge at country level	3.3	150,000		80,000	40,000	30,000
20.08	Prepare national action programme	3.4	250,000		250,000		
20.09	Review of existing legislation/regulations	3.5	250,000		250,000		
20.10	Support for implementing national action programmes	3.6	510,000		170,000	170,000	170,000
20.11	Compliance and monitoring programme	4.1	225,000		75,000	75,000	75,000
20.12	Prepare reporting forms and communication manual for ships' crews	4.2	100,000			100,000	
20.13	Training of officials in monitoring and compliance	4.3	390,000		130,000	130,000	130,000
20.14	Training in the use of monitoring equipment, case studies	4.4	180,000		60,000	60,000	60,000
29.00	**SUB-TOTAL CONTRACTS COMPONENT**		**3,640,000**		**1,685,000**	**1,055,000**	**900,000**
30.00	**TRAINING/MEETINGS**						
32.00	**Training**						
32.01	Course development workshop	2.5	70,000		70,000		
32.02	National training of shipmasters, owners, Port Authorities, etc.	2.5	180,000		60,000	60,000	60,000
33.00	**Meetings**						
33.02	Meetings, GPTF	1.A.4	60,000		20,000	20,000	20,000
33.03	Meetings, communication workshops	1.B.2	120,000		120,000		
33.04	Meetings, participatory workshops	2.2	150,000		150,000		
33.05	Meetings, CPTF	3.1	300,000		100,000	100,000	100,000
33.06	Meetings, evaluation, RPTF	5.2	630,000		210,000	210,000	210,000
33.07	Donor Conference	6.2	50,000				50,000
39.00	**SUB-TOTAL TRAINING/MEETINGS COMPONENT**		**1,560,000**		**739,000**	**390,000**	**440,000**

Budget Line	Description/Activity	Act. No.	Total	1999	2000	2001	2002
40.00	**EQUIPMENT**						
45.01	Expendable equipment (PCU)	1.A.2	50,000		50,000		
45.02	Purchase of equipment, monitoring instruments	4.4	60,000		60,000		
49.00	**SUB-TOTAL EQUIPMENT COMPONENT**		**110,000**		**110,000**		
50.00	**MISCELLANEOUS**						
51.01	Sundries		35,000	5,000	10,000	10,000	10,000
52.02	Reporting costs		30,000		10,000	10,000	10,000
53.02	Miscellaneous		60,000		20,000	20,000	20,000
59.00	**SUB-TOTAL MISCELLANEOUS COMPONENT**		**125,000**	**5,000**	**40,000**	**40,000**	**40,000**
	TOTAL:		**6,720,000**	**77,500**	**3,060,000**	**1,870,000**	**1,712,500**
	Executing Agency support 10%		**672,000**				
	GRAND TOTAL		**7,392,000**				

BUDGET NOTES

Project Title: Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries
Project No: GLO/99/G31/A/1G/19

			Budget Line
Activity 1.A.1		**US$945,000**	
Covers salary, benefits, travel for PCU, necessary administrative/secretarial personnel, and international short term consultancies. The CTA absorbs nearly half the amount in salary and benefits alone.			
a)	Salary for CTA	**US$450,000**	**11:00**
b)	Salary for Administrative Assistant	**US$180,000**	**13:01**
c)	Salary and travel for short-term consultants who will assist the CTA to get the project off the ground	**US$195,000**	**11:52**
d)	Travel for PCU	**US$120,000**	**16:01**
Activity 1.A.2		**US$ 50,000**	**45:01**
Cost of computers, other equipment, office supplies, telephones in PCU and field offices.			
Activity 1.A.3		**US$100,000**	**20:01**
Costs associated with research, contracts, preparation and distribution of case study materials. Case study preparation will be an ongoing activity. There are a number of case study opportunities from previous ballast water research particularly in developed countries. Experience gained from the project will generate more.			
Activity 1.A.4		**US$ 60,000**	**33:02**
Creation of the GPTF and the assumption of three meetings over the three years. Assumption is 20 K per meeting.			

Activity 1.A.7 **US$ 80,000** **15:01**

Costs associated with APRs and Tri-partite reviews, evaluation and assessment of project results.

Activity 1.B.1 **No costs involved**

Activity 1.B.2 **US$120,000** **33:03**

Cost of six initial country-based communications workshops to develop project communications needs and strategies at 20 K per workshop.

Activity 1.B.3 **No costs involved**

Activity 2.1 **US$150,000** **20:02**

Funding for the PCU to provide resources to identify existing relevant and define potential additional community assessment, education and information activities. These activities must involve the best available expertise from both the natural and social sciences and the full range of affected interests, including NGOs and the private sector.

Activity 2.2 **US$150,000** **33:04**

Funds for six participatory workshops (one for each country) using the information that is generated from Activity 2.1 as a basis to help shape country plans. Comes out to 25 K per workshop.

Activity 2.3 **US$ 60,000** **20:03**

Based upon the results of the workshops in Activity 2.2, and reviews of activities undertaken in Activity 1.B.2, devise workplans for the community assessment, information, participation, and education activities of the project. 10 K per country.

Training for shipmasters, owners, operators and other shipping related personnel. Idea is to generate methodologies and materials in addition to testing programme efficacy in the target ports and countries.

a)	Consultant to assess training inputs and run Course Development Workshop (see 'b')	**US$ 50,000**	**11:54**
b)	Course development workshop on Train-X methodology for course developers from selected training institutes (see 'a')	**US$ 70,000**	**32:01**
c)	Training courses for shipmasters, owners, port authorities, etc. using courses developed by CDW graduates (see 'b')	**US$180,000**	**32:02**

Activity 3.1 **US$780,000**

Funding for the work of the CPTFs over the three years of the project. Funding covers all activities (including national consultants, travel and subsistence) and includes 480 K for the hiring of an assistant to the Focal Point in the lead agency. **20:05**

Approximately ten meetings per country over the three years of the project, total of 60 meetings at 5 K each meeting amounting to 300 K. **33:05**

Activity 3.2 **US$130,000** **20:06**

Funding needed to review the existing situation in each country regarding the amount, quality and effects of current ballast water discharge. The PDF-B confirmed that little is known about the exact nature of the threat and that progress is difficult to achieve in the absence of such information.

Activity 3.3 **US$150,000** **20:07**

It is agreed in reviews of the literature on ballast water that activities undertaken in activity 3.2 will result in the identification of gaps. Some gaps can be filled without costly research projects, which are the ones to be covered here. 25 K per country over the life of the project.

Activity 3.4 **US$250,000** **20:08**

Preparation of national workplans to devise generic, country and specific programmes of action.

Funding for implementation of the country action programmes. Differs from the funding for the activities of the CPTF in that implementation will involve many more players than the CPTF. There will likely be roles for the NGO community and ministries, agencies, and other governmental and quasi-governmental entities not directly involved in the work of the CPTFs. Room to test novel approaches to identified problems, e.g. monitoring might be undertaken by community interest groups such as fishers, aquaculture officials, recreational interests. An overlap but not a conflict with Activity 4.1.

Activity 4.1 **US$225,000** **20:11**

Support for the CPTF with regard to building capacity among government agency personnel to undertake development of port and country specific monitoring programmes. Amounts to 37.5 K per country over the life of the project or a little over 12.5 K per annum.

Activity 4.2 **US$150,000** **20:12**

A total of 150 K to prepare the "shipping side" materials. Funding essentially for consultant costs and some governmental agency support to establish the communication link between ship and shore. One lead country will be selected to prepare a "Draft Model Manual" for use by the other countries. The "expectations" derived from the manual can actually be electronically communicated to incoming ships.

Activity 4.3 **US$390,000** **20:13**

Crucial to compliance and monitoring. There are no officials trained or even knowledgeable about the issue at this time. Funds would be used to train lead agency compliance and monitoring officials for placement at the designated pilot ports. The activity will continue over the life of the project, at which time the government would be expected to assume the post-project expenditure. 130 K per year over the life of the project.

Activity 4.4 **US$240,000**

Costs include purchase of five monitoring instruments per port at a total cost of 60 K. **45:02**

Cost of training, preparation of manuals, development of monitoring case studies and development of enhanced monitoring techniques refined over the life of the project costed at 30 K per country over the three years **20:14**

Activity 5.2 **US$630,000** **33:06**

The RPTFs are crucial to project success in that if there is no regional movement parallel to that of the pilot demonstration projects the project will likely fail. The costs will be for one meeting of each RPTF per year. The cost for each regional meeting will vary as, for instance, the Black Sea region is small compared to the other regions. The total cost of meetings will be approximately 400 K. The remaining 230 K will be used to support study tours for stakeholders from key countries to visit and learn directly from the experiences of the pilot demonstration projects.

Activity 6.1 **US$ 50,000** **16:03**

Cost related to travel to attract donors for self-financing of project components.

Activity 6.2 **US$ 50,000** **33:07**

Cost associated with holding a donor conference.

Sundries **US$ 35,000** **51:01**

Cost associated with communications, postage, literature, documentation.

Reporting costs **US$ 30,000** **52:02**

Cost associated with printing and distribution of yearly reports and final project report, and reports from country, regional and global meetings.

Miscellaneous **US$ 60,000** **53:02**

This amount, which is less than 1% of the total budget, will cover unforeseen expenditure in the PCU and the six countries for the period of the project, less than 3 K per country and PCU per year.

139. **International Experts:** International Experts will be recruited internationally, using processes and procedures well established by the IMO and accepted by its member states. Their salaries and expenses will be paid according to scales reviewed regularly by the IMO worldwide. Job Descriptions are available in Annex I.

140. **Project Coordinator:** Also referred to as a Chief Technical Advisor, this individual will be responsible for overall management and coordination of the implementation of the GEF/UNDP/IMO Project. This individual will be recruited by the IMO with the participation of UNDP and in consultation with the participating countries. He or she will be located in the offices of the IMO in London, UK. Full TOR in Annex I.

141. **Technical Advisor (Communications Specialist):** The Advisor will assist in focusing effort on the substantial communications aspects and challenges associated with successful achievement of project objectives. This individual will also be recruited by the IMO but with the strong input of the CTA. He/she will also be located in the offices of the IMO in London, UK. IMO will fund this post out of its project AOS. Full TOR in Annex I.

142. **Requisite Administrative and Secretarial Assistance:** The requisite administrative and secretarial assistance will be determined by the CTA consistent with the financial arrangements for that purpose as described in this document. Administrative and secretarial personnel will also be located in the offices of the IMO in London, UK. Full TOR in Annex I.

Terms of Reference

143. Abbreviated Terms of Reference for Short-term International Consultants, Local PCU Staff and National Project Professional Personnel (NPPPs) are below. Full Terms of Reference for PCU staff are in Annex I.

1. **Short-term International Consultants**

144. Short-term international consultants will give technical inputs to the national and regional working groups, act as resource persons, and give methodological guidance in organizing meetings and workshops. International expertise will be required in the following themes (detailed Terms of References will be prepared by the CTA during project implementation):

2**. National Project Professional Personnel (NPPP)**

145. In consultation with the CTA, National Professionals and Consultants will be recruited from qualified candidates from the participating countries to work at the national level. National Consultants will play an important role in the work of the CPTFs. Each country will be funded to hire an Administrative Assistant to assist the Country Focal Point in the effective and efficient administration of the country program. The detailed Terms of References will be prepared by the CTA, in collaboration with the designated Country Focal Point, during project implementation. Country Focal Points, through their Administrative Assistants will be responsible for the recruitment and hiring of national consultants as deemed necessary for the success of the project, in collaboration with the CTA and UNDP Country Offices as required.

Subcontracts:

146. The majority of the work being done both by international agencies and by the countries will be conducted under the mechanism of subcontracts. Subcontracts will be executed with the individual institutions, agencies, NGO or other recognized, legal entity to perform specific activities associated with the GEF/UNDP project. The subcontract will be based on specific terms and scope of work, agreed to prior to executing the contract, and shall be issued using IMO guidelines.

Training:

147. Training will be made available through small grants, for a variety of mechanisms. Most training is targeted in the areas of training shipping and port officials and for monitoring and compliance. In addition, meeting expenses are included in this category, to cover the local costs associated with hosting meetings in the region.

Equipment:

148. Equipment costs include that required for establishing the PCU and the inter-country communication costs. Where practicable equipment will be purchased within the participating country. However, provision is made to purchase some equipment internationally, if not available within a country. Equipment costs include both permanent equipment as well as expendable supplies and equipment. Communications costs are budgeted for the PCU, CPTFs, and RPTF. Finally, Office Operations and Maintenance costs are provided for the PCU

a) Fund the Technical Advisor (Communications Specialist)
b) Cover project administrative and financial management activities
c) Cover project-related IMO Mission Travel

ANNEX I

Terms of Reference
Ballast Water Management Program
Program Coordination Unit (PCU)
London, UK

Background: The PCU will provide a coordination and management structure for the development and implementation of the Ballast Water Management Program in accordance with the rules and procedures of GEF/UNDP and IMO and based on direction provided by the Global Project Task Force.

Tasks:

- Assistance in networking between and among the Regional Task Forces, Country Project Task Forces, Lead Agencies, and Country Focal Points in the six participating countries (Brazil, China, India, Iran, South Africa, Ukraine);
- Organization of program and technical cooperation activities between and among the six participating countries for capacity-building, ballast water related policy development, management and pre-investment activities;
- Organization of consultative meetings for introducing and implementing program activities;
- Collection and dissemination of information on policy, economic, scientific and technical issues related to the program;
- Provision of support for the preparation of demonstration studies and activities;
- Preparation of progress reports (technical, administrative and financial) concerning program activities;
- Establishment of and assistance in networking between specialized institutions in participating countries and technical specialists from elsewhere;
- Assistance in involving the private sector in the pilot demonstration projects;
- Coordination of international, multi-lateral and bilateral ballast water related activities in the participating countries, where appropriate; and
- Program management (financial, logistical and strategic) particularly in the context of the GEF/UNDP and related projects;
- Submission of quarterly reports to IMO.

ANNEX I (continued) - Job Descriptions for the Programme Coordination Unit Staff

A. Professional Staff

Chief Technical Advisor (CTA)

General Job Description

The CTA shall be responsible for the overall coordination of all aspects of the Ballast Water Management Program in general and in particular. He/she shall liaise directly with the GPTF, RPTFs, CPTFs, potential additional project donors, Country Focal Points and the representatives of GEF partners, in order to coordinate the annual work plan for the program. The work plan will provide guidance on the day-to-day implementation of the current project document and on the integration of the various donor funded parallel initiatives. He/she shall be responsible for delivery of all substantive, managerial and financial reports from the Project. He/she will provide overall supervision for all GEF staff in the Program Coordination Unit as well as guiding and supervising all external policy relations. He/she shall consult with, and coordinate closely with, the Principal Project Resident Representative, senior representatives of partner agencies as well as the respective UNDP officers in all participating countries.

Duties

The CTA will have the following specific duties:

- to manage the GEF Components of the PCU, its staff, budget and imprest fund;
- to prepare the annual work plan of the program on the basis of the Project Document, in close consultation and coordination with the GPTF, Country Focal Points, GEF Partners and relevant donors;
- to coordinate and monitor the activities described in the work plan;
- to ensure consistency between the various program elements and related activities provided or funded by other donor organizations;
- to prepare and oversee the development of Terms of Reference for consultants and contractors;
- to coordinate and oversee the preparation of the substantive and operational reports from the Program; and
- to foster and establish links with other related GEF programs and, where appropriate, with other relevant regional International Waters program
- to submit quarterly reports to IMO.

Skills and Experience Required

- post-graduate degree in Environmental Management, Engineering or a directly related field (e.g. applied marine science, natural resources economics, etc.);
- at least twenty years experience in fields related to the assignment. At least ten years experience as a senior project manager. Demonstrated diplomatic and negotiating skills;

ANNEX I (continued) - Job Descriptions for the Program Coordination Unit Staff
Technical Advisor (Communications Specialist)
General Job Description
The Advisor will be responsible for information capture, exchange and networking between a wide range of project participants including government officials, scientists, non-governmental organizations and the public at large. He/she will work closely with institutional focal points, project lead agencies, specialized UN Agencies, international NGOs, national and local NGOs, and will cooperate with and encourage activities of other donors in the area of project communications. He/she shall work under the supervision of the CTA within the Program Coordination Unit (PCU), which will be established in London, UK.

Duties
The Advisor will have the following specific duties:

- to generate and maintain a directory of all persons and institutions engaged in work related to the implementation of the program;
- to supervise data exchange and the maintenance of the data communications network between and among project related institutions and individuals;
- to create, edit, and distribute a regular information bulletin on the program;
- to supervise the development of a library and internal communications system for the PCU;
- to supervise the development and maintenance of information management strategies with particular emphasis on development of the global resource information center;
- to develop and maintain a World Wide Web home page for the project;
- to liaise with donors, specialized UN Agencies (such as IMO, FAO, WHO, UNESCO), international NGOs (such as WWF, IUCN) and other organizations involved in establishing and managing related programs;
- to consult in the creation of and supervise the creation of participation, information, and education programs in each participating country; and
- to assist with the administration of other information-related communication issues where required by the CTA.

Skills and Experience Required
This post has a requirement that the incumbent be highly familiar and have direct work experience in communications technologies and the development of public information, involvement, and education strategies. The incumbent should have direct experience in one or more of the participating countries and be fully fluent (including a proven writing and editing ability) in English. Fluency in one or more of the languages of the participating countries is desirable.

Other requirements are as follows:

ANNEX I (continued) - Administrative Structure of the PCU

The administrative staff of the PCU will consist of an Administrative/Secretarial Officer and short-term, additional administrative and secretarial assistance as needed. IMO procedures will be employed in hiring the full time position and the requisite short-term support. The staff of the IMO will provide additional administrative support to the PCU.

Administrative Assistant
General Job Description
Under the supervision of the CTA, the Administrative/Assistant will manage the day to day operations of the PCU, particularly with respect to technical services, staff support, and, with the assistance of the administrative unit of the IMO, financial, procurement (including importation, permits, etc.) and personnel matters. The post holder will be the principal line of liaison between the PCU and the IMO in all financial and administrative matters.

Duties:

- Under the supervision of the CTA, the Administrative Assistant will:
- Prepare internal and external correspondence for the PCU, maintain files and assist in the preparation of documentation for meetings;
- Use the Internet and conduct research on availability of scientific, legal and technical information on topics related to the project implementation at all sites;
- Develop and update a data base of ballast water management techniques and practices;
- Liaise with the Environment, Administrative and Technical Co-operation offices of IMO on matters related to the PCU personnel and field staff.
- Assist in organizing project activity meetings and participate in the meetings of the Ballast Water Working Group of MEPC.
- Co-ordinate and assist in travel arrangements of the PCU staff and field project personnel;
- Prepare press releases, statements and speeches on the project activities;
- Undertake such other duties as may be assigned by the CTA.

Skills and Experience Required:

- Higher education (secondary education or equivalent as experience can be considered).
- Several years' experience of work in international organizations/agencies, governmental offices, research or training organizations.
- Complete proficiency in English; good knowledge of French or other working/official UN languages

Terms of Reference

Global Project Task Force (RPTF)

Background: The GPTF will direct the activities of the Project. The GPTF will make decisions based on the principle of consensus.

Membership: Initial Global Project Task Force membership will include a representative from each of the six participating countries as well as one each from GEF/UNDP, the Private Sector, the NGO Community and the IMO. The Program Coordination Unit (PCU) Chief Technical Advisor will act as Secretary to the GPTF. Additional members can be added at the discretion of the GPTF.

Tasks:

- Provide overall strategic policy and management direction to the Project;
- Assist in identifying and allocating Project support for activities consistent with Project objectives;
- Annually review and assess the progress of the Project and its components;
- Annually review and approve the work plan and comment on the budgets of the Project and its activities, and provide strategic direction on the work plan;
- Provide guidance to the PCU in coordinating and managing the Project and its activities;
- Create mechanisms for interaction with the Private Sector (shipping, ports), NGO and other stakeholder (e.g. public health) communities; and
- Seek additional funding to support the outputs and activities of the project.

ANNEX I (cont'd)

Terms of Reference
Country Project Task Forces (CPTFs)

Background: The CPTFs will will provide guidance, ensure coordination, and oversee implementation of the Project through a wide range of National institutions and organizations necessary to successful implementation. Each CPTF will be comprised of a Chair who will be the Country Focal Point of the project. Each Country Focal Point will have the services of a full time Administrative Assistant. Membership of the CPTF will include, in addition to the Chair, officials from ballast water related agencies at the governmental level (including public health), key stakeholder groups, the private sector (shipping, ports) and the NGO community. The Administrative Assistant will serve as Secretary to the CPTF. The CPTF will meet at the call of the Chair.

Tasks:

- Ensure an integrated and coordinated approach to facilitating the sectoral changes needed for the creation of an effective ballast water management strategy and action plan at the national level***;***
- Identify national modalities for the implementation of various Project Components;
- Develop, support and coordinate all national activities relevant to the project;
- Liaise as necessary with other Country project Participants, the RPTF, and the PCU;
- Coordinate and ensure timely delivery of national contributions to the Project;
- Assume responsibility for national contributions to the Project;
- Ensure an effective and comprehensive public information, education and participation program and undertake as necessary community assessment activities;
- Facilitate national and donor contributions to necessary 'baseline' activities needed to develop and implement the country ballast water management strategy.

Annex I (cont'd.)

Terms of Reference
Regional Project Task Forces (CPTFs)

Background: The RPTFs will…..

Tasks:

(to be completed during first year in consultation with GPTF and CTA)

ANNEX II

Relationship Between IMO Regular Activities and the GEF Project

IMO – Member States	GEF/UNDP
Now	
1. IMO Natural Base 2. Voluntary Guidelines 3. No PCU to support country Activities	No country demonstrations
GEF Project	1. Jump-start PCU at IMO/HQ 2. Phase down GEF funding 3. Fund demonstration sites in six countries 4. Document barriers and strategies to overcome them 5. Demonstration sites do log checks, sampling, control, monitoring and risk assessment.
2001 – 1. Mandatory protocol in place 2. Fully funded PCU at IMO to support country activities	Countries assume ongoing responsibility for ongoing ballast water related activity.

ANNEX III

Regional Participation Plan

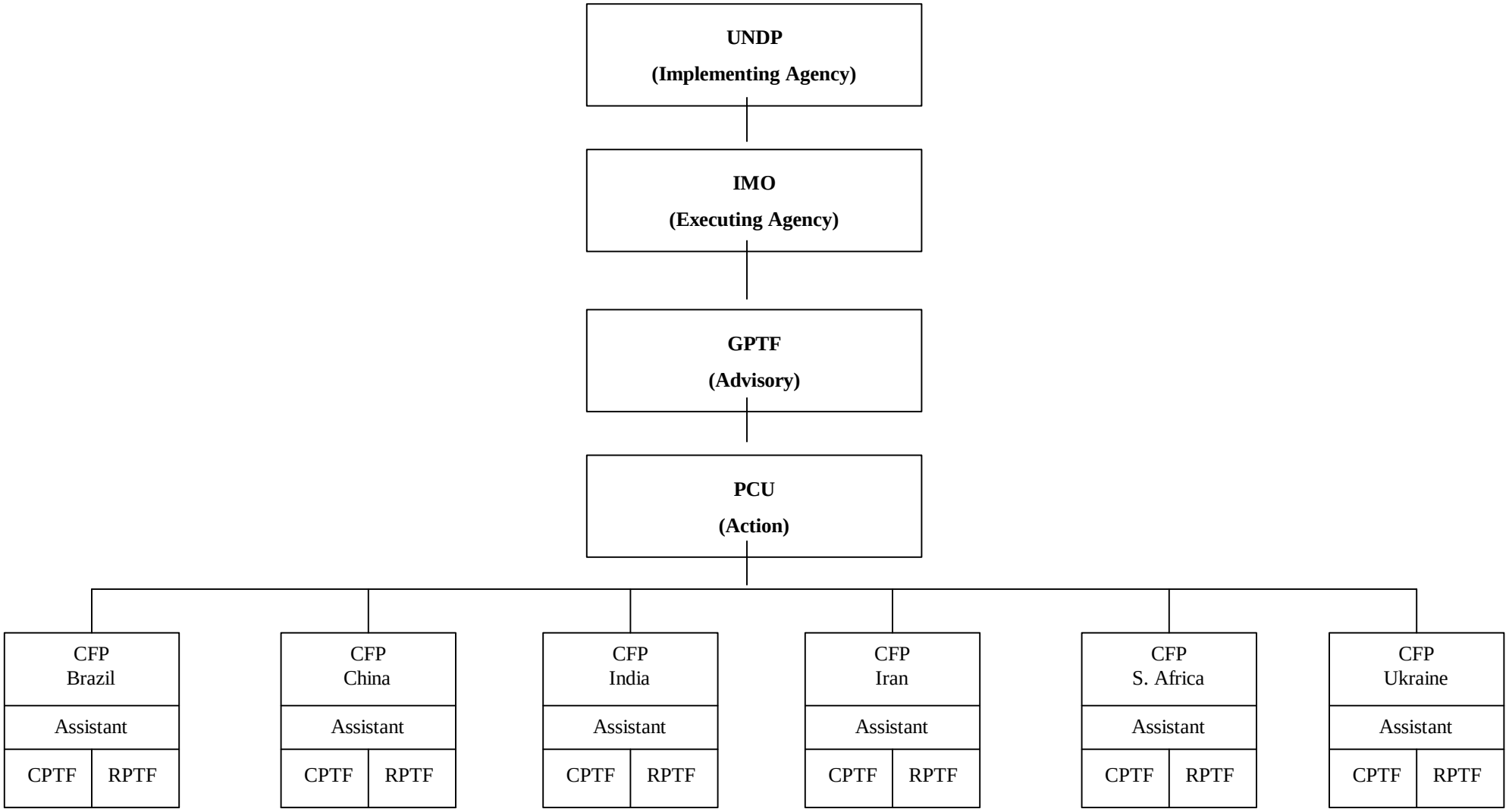
One of the early tasks of the project will be preparation of a Strategic Plan to secure effective regional participation and cooperation and to ensure replication of results. The objective of a regional approach is to convene key regional actors, through the creation of regional task forces convened by the PCU with IMO assistance, to plan and execute a regional approach that will be driven in part by the demonstration projects developed at each of the participating ports and countries. Key principles in the work of the regional task forces will include:

- development of an integrated approach
- use of a lead agency and key managers in each country
- a commitment to risk minimization re. ballast water discharge
- effective communications
- recognition of the need to recognize the essential role of shipping, the importance of the marine environment, and to balance the two
- recognition of the sovereign rights and obligations of each country
- the incorporation of new knowledge and information into regional decision-making
- the need for consistency with IMO/MEPC directions in ballast water management.

The key elements of a regional strategy would include:

- improved knowledge of invasive marine species issues and its relationship to ballast water management
- development and implementation of a set of arrangements which will, to the maximum extent practicable, minimize the transfer and establishment of invasive marine species
- identification of affected interests and the productive involvement and cooperation of those interests in the work of the project
- provision of information to, and collection of information from, affected interests on problems identified, solutions developed, and practical approaches to application and management
- development of regional consistency in management of the issue and approaches to be adopted
- provision of linkage between international regulatory approaches and a legally binding IMO Guideline (expected new MARPOL Annex) under development.

ANNEX IV
PROJECT ORGANIZATION CHART



PCU: PROJECT CO-ORDINATION UNIT
GPTF: GLOBAL PROJECT TASK FORCE
RPTF: REGIONAL PROJECT TASK FORCE
CPTF: COUNTRY PROJECT TASK FORCE