

GloBallast Project

Independent Mid Term Evaluation (MTE)

31 March 2003

Final Report

Global Ballast Water
Management Programme





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Published in May 2003 by:

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The correct citation of this report is:

Vousden, D. & Okamura, B. 2003. *GloBallast Project Independent Mid Term Evaluation (MTE): Final Report, 31 March 2003*. IMO London

The Global Ballast Water Management Programme (GloBallast) is a cooperative initiative of the Global Environment Facility (GEF), United Nations Development Programme (UNDP) and International Maritime Organization (IMO) to assist developing countries to reduce the transfer of harmful organisms in ships' ballast water.

The opinions expressed in this document are not necessarily those of GEF, UNDP or IMO.

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Executive summary

The evaluation of the UNDP GEF supported global project entitled *Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries* (GLO/99/G31) reached the following conclusions.

- The project has achieved an exemplary and outstanding level of awareness raising at the national, regional and global level
- Project executing and management has been effective and remarkable in that so many achievements have been realised under the constraints of time and manpower imposed by the project design.
- The countries themselves have contributed significant and valuable support and have provided very real and serious commitment to this project.
- Stakeholder participation and support has also been impressive, especially for a global project of this nature.
- The project has created a solid foundation of support for the expected Convention on Ballast Water Management, and has initiated many activities, which will stand the participating countries in good stead when the Convention is adopted.
- The project has contributed significantly to our understanding of some of the barriers and constraints which may be experienced at the national level in implementing the requirements of a future Convention, and has provided (and will continue to provide) many lessons and best practices which can be transferred and replicated both nationally and regionally.
- The project represents a unique and model example of GEF assistance being used during the development stages of an International Convention related to GEF aims and objectives.
- There have been some delays in certain components and outputs (specifically those related to legislation, compliance, monitoring and enforcement), which are not the fault of the project, but are due to external circumstances.
- The evaluation has also identified some areas of project administration, management and technical output that could be enhanced and improved.

The Evaluators made the following recommendations for consideration by the GPTF, and for implementation before, and beyond, the final closure of this project.

Improvements to existing project administration and coordination

This set of recommendations provides advice on improvements to the administration and coordination of the project. These address the need for GPTF intersessional input to project policy and steering, improved international liaison and communications between the CFPs as well as the CFP-As, the urgent need for finalisation of the Case Studies, and the need for additional resources to support the GloBallast programme and the draft Convention.

Rationalisation of activities that are behind schedule as a result of inappropriate project design

Under this heading, the Evaluators have made recommendations addressing problems caused by inappropriate design through the original project document. These look at the need for targeted awareness of policy makers, the engagement of missing stakeholders, the need for a review of the Risk Assessment Component, hastening regional replication, the need for a review of financial mechanisms for ballast water management, and a review of sustainable institutional arrangements for ballast water management.

Rationalisation of project activities constrained by the absence of an agreed Convention

In the light of delays caused by the on-going absence of the expected Convention, the Evaluators also address the need for a review of the CME Component, a review of training needs, and a review of national ballast water plans.

Re-scheduling of Convention-related activities and full regional replication to a follow-up project phase

Finally, probably one of the most significant and important recommendations looks at the very urgent need to consider a follow-up project in order to take into account the effect of the delays in adopting the Convention, to build on the excellent achievements of the project so far (despite such constraints), and to protect the investment to-date by GEF and ensure that this investment is further leveraged.

Evaluators' note

We have been significantly impressed with the success of this project and its achievements within a limited timescale and with limited resources. Much of the credit for this must go to the dedicated work of the PCU, a fact that has been recognised by all stakeholders. However, significant and specific credit is also due to each of the countries for making the activities happen also within the limited timescale and resources available. We feel that this project stands out as a notable example of a successful GEF Global initiative. In this respect we are concerned to ensure that it continues to maintain this level of success and reaches an end-of-project scenario which can still be judged as very successful and full of valuable lessons. We have therefore made every effort to detail any shortfalls or potential hurdles that may prevent such a scenario.

It is vitally important that the countries and the PCU see the comments and opinions in the Evaluation document as having arisen from their own input and not as some expression of the Evaluator's opinion in isolation. Some parties may disagree with certain comments or observations but they have still been included as their existence is important to the evaluation process. Often perceptions can be as important as facts in the effect they can have on morale, and ultimately on project success. Where an opinion or comment is felt to be ill-perceived then the respective parties should use this opportunity to communicate and to resolve the issue. The Evaluators have noted in past evaluations that this exercise can be very healthy and highly constructive in removing barriers, and building a cooperative ownership of the project and better stakeholder understanding. Where issues or perceptions are contentious, GPTF members should seek to place these onto the agenda for further discussion and resolution. In this respect, the need for ex-plenary meetings (teleconference or 'virtual') of the GPTF on an intersessional basis would be of enormous value to project progress and sustainability.

Acronyms

ANVISA	National Agency of Sanitary Surveillance (Brazil)
CFP	Country Focal Point
CFP-A	Country Focal Point Assistant
CME	Compliance, Monitoring and Enforcement
COSCO	China Ocean Shipping Company
CPTF	Country Project Task Force
CRIMP	Centre for Research on Introduced Marine Pest (Australia)
EA	Executing Agency
FAO	Food and Agricultural Organisation of the United Nations
GA	General Assembly
GEF	Global Environment Facility
GISP	Global Invasive Species Programme
GloBallast	Global Ballast Water Management Programme
GPTF	Global Project Task Force
IA	Implementing Agency
ICES	International Convention on the Exploration of the Seas
IEAPM	Sea Studies Institute of Admiral Paulo Moreira (Brazil)
IMO	International Maritime Organization
INTERTANKO	International Association of Independent Tanker Owners
IUCN	World Conservation Union
IW	International Waters
MEPC	Marine Environmental Protection Committee of IMO
MMA	Ministry of Environment (Brazil)
MoE	Ministry of Environment
MoU	Memorandum of Understanding
MTE	Mid Term Evaluation
NGO	Non-Governmental Organisation
NIC	National Information Centre
NPA	National Port Authority
PBS	Port Baseline Survey
PCU	Project Coordination Unit
Petrobras	Brazil's National Petroleum Importation and Handling Agency
PIP	Project Implementation Plan
PIR	Project Implementation Review
ProDoc	Project Document
RA	Risk Assessment
RAP	Regional Action Plan
ROPME	Regional Organisation for the Protection of the Marine Environment
RPTF	Regional Project Task Force
STCW	Standards of Training, Certification and Watchkeeping (IMO Convention)
UNCED	United Nations Convention on Environment and Development
UNDP	United Nations Development Programme
WHO	World Health Organisation
WSSD	World Summit on Sustainable Development

1 Background

It is estimated that around 10 billion tonnes of ballast water are carried around the world by ships each year. While ballast water is essential to the safe operation of ships, it also poses a serious environmental threat, in that at least 7,000 to possibly more than 10,000 different species of marine microbes, plants and animals may be carried globally in ballast water each day. When discharged into new environments, these species may become invasive and severely disrupt the native ecology as well as having serious impacts to the economy and human health. The global economic impacts of invasive marine species have not been quantified but are likely to be in the order of tens of billions of US dollars a year.

In 1992, the United Nations Conference on Environment and Development (UNCED) requested IMO to consider the adoption of appropriate rules on ballast water discharge to address the spread of non-indigenous organisms. IMO has responded to the ballast water ‘problem’ by:

- forming a Ballast Water Working Group under its Marine Environment Protection Committee (MEPC),
- adopting *Guidelines for the control and management of ships’ ballast water to minimize the transfer of harmful aquatic organisms and pathogens* (Assembly Resolution A.868 (20), hereafter referred to as the IMO Guidelines),
- developing a new international legal instrument (Convention) on ballast water management (currently entitled *International Convention for the Control and Management of Ships’ Ballast Water and Sediments*, hereafter referred to as the Convention), to be considered for adoption by an IMO Diplomatic Conference in early 2004,

IMO has also joined forces with UNDP-GEF and has undertaken a number of missions to identify and evaluate the barriers to effectively address the ballast water issue in some of the developing regions of the world. Based on the recommendations of the preparatory missions and the agreement of the concerned Governments the “Global Ballast Water Management Project” (GloBallast) was approved by the GEF Council in 1999.

The project is funded by GEF through the UNDP and is executed by IMO. The total budget for the project is US\$ 10,192,000 (including executing agency AOS costs) including an in-kind contribution from the governments involved of US\$ 2,800,000. The project implementation began on 1 March 2000 (when the project Chief Technical Adviser started his activity in IMO Headquarters), and was scheduled for a period of three years.

With the ultimate goal of reducing the transfer of harmful aquatic organisms in ships’ ballast water, the GloBallast project has development objectives to assist countries to:

- implement the existing IMO guidelines; and
- prepare for the implementation of the new IMO Convention regarding the management and control of ships’ ballast water and sediments.

The programme is working to achieve these objectives through six Demonstration Sites, located in six Pilot Countries representing the main developing regions of the world, as follows:

Table 1. GloBallast Demonstration Sites

<i>Demonstration Site</i>	<i>Pilot Country</i>	<i>Region Represented</i>
Dalian	China	Asia/Pacific
Kharg Island	IR Iran	The Gulf (ROPME Sea Area)
Odessa	Ukraine	Eastern Europe
Mumbai	India	South Asia
Saldanha	South Africa	Africa
Sepetiba	Brazil	South America

The project’s nine immediate objectives are to:

- Establish a Programme Coordination Unit (PCU) and a Global Information & Communication Network at IMO.
- Establish and support a Lead Agency, Country Focal Point (CFP) and multi-sectoral Country Project Task Force (CPTF) in each country.
- Establish and support a Global Project Task Force (GPTF) to review the programmes and advise upon the general direction of action.
- Develop and implement communication, education and awareness-raising programmes and activities about ballast water threats and solutions at the port, national and regional level for each demonstration site.
- Undertake an initial risk assessment and information gap filling exercise at each demonstration site to provide a clear understanding of the level and types of risks of introductions that each port faces, as well as the most sensitive resources and values that might be threatened, and the management responses required.
- Develop and implement generic and country/port specific plans, with defined ballast water management measures, to increase compliance with IMO guidelines and protect identified, country specific most sensitive values at risk.
- Develop and implement generic and country/port specific compliance monitoring and enforcement systems to ensure maximum practicable compliance with IMO guidelines.
- Where appropriate, establish and support Regional Project Task Forces to increase regional awareness and cooperation and eventual replication of programme results across each region.
- Identify and secure opportunities for self-financing of the programme during its lifetime and for the sustainable continuation of IMO efforts to address ballast water management issues.

At its first meeting in July 2000, the Global Project Task Force (GPTF), based on the Project Document, reorganized activities in order to establish a more effective Project Implementation Plan (PIP) and to better reflect the actual needs and capabilities of the Pilot Countries.

The need to ensure standardized approaches in countries situated all around the globe with such different and diversified geo-climatic and politico-administrative conditions imposed flexible time schedules and determined several adjustments in the initial indicative workplan.

When the initial Project Document was elaborated, the international community was planning to adopt a regulatory regime for ballast water by the year 2002. Due to the complexity of the issue the negotiations between IMO Member States took longer than expected and the adoption of the Convention was postponed until late 2003. The time gap created between the scheduled end of GloBallast in March 2003 and the possible adoption of a new convention has also raised concern and risks losing the unprecedented momentum of concerted international action precipitated by the

project. As of January 2002, the timing of disbursement was just over 53%, meaning that the project was under spent, and the GPTF decided to extend the duration of the project by 12 months.

Direct beneficiaries of the project are the six Pilot Countries, which have established multi-sectoral CPTFs prepared to address the ballast water issues and ready to consider the adoption and ratification of the new Convention. The regional arrangements initiated during the project are expected to facilitate replication of the success of the six demonstration sites in the respective regions thus ensuring a timely entry into force of the international regulatory regime for ships' ballast water discharges. The ultimate beneficiary of the project will be the people dependent on the marine environment and its valuable resources including biodiversity, fisheries, marine food production and coastal tourism.

Following the most recent MEPC meeting in London (7th-11th October 2002), it is now expected that a draft Convention can be agreed at the MEPC 49 meeting in July 2003, and that a diplomatic conference could approve the Convention for adoption by February/March 2004. Implementation of the Convention is expected to happen in two tiers. Tier one will be for all ships, while tier two will have more stringent requirements with possible design and equipment specifications.

2 An explanation of the MTE (Mid Term Evaluation) process

The purpose of a Mid Term Evaluation (MTE) is to enable the direct stakeholders to the project (National Participating Countries, Enabling Agencies, Implementing Agencies and GEF) to review the progress of the project at or close to the mid-term in the project lifecycle, and to reappraise the objectives and likely outputs from the project.

The evaluation attempts to determine, as systematically and objectively as possible, the relevance, efficiency, effectiveness, impact and sustainability of the project. The evaluation will assess the achievements of the project against its objectives, including a re-examination of the relevance of the objectives and of the project design. It will also identify factors that have facilitated or impeded the achievement of the objectives. While a thorough review of the past is in itself very important, the in-depth evaluation will also provide detailed recommendations and lessons learned for the future.

The evaluation was conducted during the period of late August and late September 2002. Two consultants were hired for this process and the field-work was shared between them as follows:

Dr. David Vousden – visited Brazil, India and South Africa (and also liaised closely with Iran although a visit was not possible).

Mr. Bin Okamura - visited China and Ukraine.

Both evaluators also worked closely with UNDP, GEF and IMO.

During the in-country evaluation process, the evaluators talked with the Country Focal Points (CFPs), Country Focal Point Assistants (CFP-As), the Country Project Task Force (CPTF) members, and other relevant national stakeholders. The evaluators also interviewed the NGO and Industry representatives on the Global Project Task Force (GPTF), as well as the International Consultants contracted for the Risk Assessment, Port Baseline Survey and Legal Review exercises.

A draft MTE was presented to the 4th GPTF meeting in Beijing 28th-30th October 2002 for discussion. Following feedback from the GPTF members, the document was updated and presented to the PCU at IMO, London. The document was then circulated to the CFPs for country review and final comments before formal adoption.

3 Mid Term Evaluation results – over all

A Project design

The overall relevance of the project design, within the GEF guidelines, must be seen as ultimately valid in view of the success achieved in meeting the fundamental GEF project criteria (see Semi-Quantitative Assessment). The concept and design also appear to be appropriate to global concerns over ballast water transfers, although there are a number of critical areas not covered by the project (comprehensive baseline ecosystem and species studies beyond just identifying invasive species, sensitivity mapping, targeted research into both ship-board and port-side treatment options. etc). The reasons for not including these areas are related to interpretations of the GEF guidelines. But, it should be remembered that it is the responsibility of a GEF project to identify related but non-GEF fundable activities and to leverage and engage funding and support for such activities within the wider scope of the project. In fairness, it should be noted that the project did sponsor a conference to look at treatment options.

The Countries and the PCU feel that the project is still meeting the Objectives for which it was designed (with the proviso that there are some concerns related to delivery which are discussed under the Conclusions).

However, there are some concerns regarding project design which focus primarily on omissions or inadequate allowance of resources, in some cases these oversights are fairly fundamental ones.

The project design has some specific shortcomings which have become more apparent as the implementation process has progressed. It certainly seems to be a fault in the project design that the project duration was set at only 3 years, which is far too short for a global project of this nature. As is fairly typical in a project of this nature, it has taken at least one year to get things moving into a full implementation situation. Furthermore, it was optimistic to say the least to expect the demonstration-port countries to A. Develop lessons and best practices, B. Engage their neighbouring countries into a regional networking process, and C. Implement a process of regional replication, all within such a short period. As a consequence there are now very valid concerns related to the reality of meeting the objective for regional replication within the remaining project timeframe. However, bearing in mind that the project has been granted a 12-month extension, there is now every reason to be optimistic that all of the Pilot Countries will have regional SAPs in place by the end of the project, thereby setting the scene for regional replication. These SAPs will help to ensure that a more formal system of communications can be maintained at the regional level. But the implementation of the SAPs is undoubtedly a long and complex process and will almost certainly require input and assistance on a timescale exceeding that of the current project, even with its one year extension. The critical importance of the implementation of these SAPs and the associated regional coordination and replication opportunities should not be underestimated. This possibly represents one of the most valuable (in terms of GEF investment) and significantly sustainable outputs from this project.

As well as the project being subjected to unrealistic time-constraints, it is the opinion of the MTE (supported by nearly all project stakeholders) that the allocation of inadequate human resource numbers has also created a significant constraint to delivery. At the level of the PCU, much has been achieved despite the shortage of manpower. This says a lot about the determination and the productivity of the PCU staff. At the country level also, inappropriate project design and insufficient human resources for supporting activities has been overcome only by the presence of dedicated and hard-working staff. This constraint should not be underestimated and could well have changed an otherwise successful project into a potential failure. The project owes much to the dedication and determination of these staff at both country and global level.

There is an overall problem inherent in the project with regard to the legislative measures versus voluntary enforcement of the IMO guidelines. It is unreasonable to expect the countries to introduce formal legislation until they have at least signed an International Convention. But the role of the project is partly to provide pilot studies to demonstrate how ballast water management measures (as

will be defined in the Convention) can be implemented, and how compliance will be achieved and monitored. So the finalisation of the Convention can gain considerable benefit from the information arising from the demonstrations in the selected ports. But successful completion of the demonstrations needs the development and implementation of legislative measures, which are politically and economically constrained by the need for an agreed and adopted Convention. It seems that the original intention of the project was to use the IMO Guidelines to develop legislation and the supportive CME. However, this has further created problems as not all countries wish to adopt a set of guidelines ahead of an international agreement with, as yet, undefined legal and regulatory commitments.

One concern regarding the project design that has been raised by several countries since early in the project implementation is that, although there is funding allocated for regional replication of the demonstration port activities and lessons, there were no funds initially allocated in the Project Document for national replication at other ports. Different levels of effort and success have been achieved with regard to the transfer of GloBallast activities and experience from the demonstration port to other country ports. Some countries have made major advances in this respect, while others feel that they have been held back as a result of limited resource allocation in the original budget. There were no clear and focussed activities within the Project Document associated with, or addressing mechanisms for this requirement. Even if the original 'argument' against supporting this national activity is one of 'funding' (i.e. it should be a national commitment) there should still be a logical and sequential design within the project to encourage and monitor this requirement. However, in response to the concerns of the countries, the PCU has been extremely flexible in encouraging national replication. This encouragement has included the use of Programme funds to allow activities to be extended to additional ports within each country (particularly seminars and awareness activities), to support the participation of personnel from other ports in GloBallast capacity building activities (e.g. Port Baseline Surveys and Risk Assessment) and the development of national policies and management plans. This therefore represents a good example of a proactive response by the PCU to original weaknesses in project design which has ultimately added to the success of certain project activities.

The original Project Document refers briefly to the development of 'toolkits' for the capture of best practices and the transfer of lessons, although this concept seems to have been lost in the PIP and the Workplans. In fact, there appears to be no clear mechanism left in the various Components and Outputs for capturing lessons and best practices, analysing these for applicability under different port or government conditions, and making such lessons and practices available for transfer, either national or regionally. This absence of mechanisms and processes for capture and transfer of lessons has been commented on by more than one Pilot Country and was independently noted by the Evaluators. A careful review of both the PIP and the Project Document reveals almost no reference to how practices and lessons are to be captured, reviewed and put into effect elsewhere within the countries or the region. The Project Document states in Paragraph 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.

And, under the success criteria for Component 5, Regional Task Forces it states:

Project developed, generic best management practices, training manuals, decision support systems, and 'tool kits' are employed by other regional countries.

Furthermore, under Section G on Monitoring, Reporting and Evaluation, Paragraph 134 notes:

The project will also participate in the UNDP-GEF International Water (IW) LEARN Project through information exchange and sharing lessons learned with GEF and other regional waters projects.

However, despite this shortcoming in the original project design, it is notable and laudable that the project has reacted pro-actively to this need for capturing and replicating best practise and using lessons learned from project experience. As an example they note that non-GloBallast countries and regions in the Mediterranean, in the Baltic, and in the APEC regions are adopting GloBallast methods and Canada is seeking to use GloBallast risk assessment methodology. The GloBallast information clearing house is also playing a vital role in this regard.

It is noted that GloBallast is working closely with the IW:LEARN programme, A virtual lecture on ballast water management, and the GloBallast ‘flash’ animation and other electronic materials has been provided for placement on the IW:LEARN website. IW:LEARN has also assisted with the GloBallast E-Forum, a website-based discussion and debate area. It is expected that this cooperation will expand significantly after the completion of the training package, which will also be made available through the IW:LEARN network.

Countries have expressed concern about the original criteria for selection of demonstration ports. This was based primarily on the number of ships and the frequency of movement. But this criterion did not take in account the difference between ‘sink’ and ‘source’ ports. Each country has ports that are primarily involved with exportation of materials (‘Sink’ ports because ballast is discharged before loading) and other ports dealing in the importation of materials (‘Source’ ports as ballast is taken on-board after unloading).

Some countries noted that they would have liked to see more provision for expenses to cover the attendance of stakeholders at meetings, thereby building a stronger stakeholder and participatory foundation during the actual project lifetime. These stakeholders are prepared to give up their time but cannot always afford to pay the expenses associated with such meetings. Furthermore, National stakeholders would often like to be more involved in projects but the CFPs and CFP Assistants are limited in the amount of time that they can give. A larger in-country project team would have helped to increase efficiency.

The countries also feel that there could have been better use made of national expertise and existing capacity within the countries. One country stated that there had (in their opinion) been no objective assessment of the countries capacities to undertake what is needed in the project. However, it should be noted that careful consideration of project delivery shows that national capacities have been fully utilised in all GloBallast activities, including legislative reviews, port baseline surveys, risk assessment, ballast water treatment research and development, Communication and awareness, etc. This utilisation of national capacity has resulted in further strengthening of their capacity, with very significant benefits for the countries, including their establishment as international experts.

In summary, the Project Design was certainly less than perfect. A number of the constraints or oversights within the implementation process have to be traced back to the original Project Document. Shortfalls and uncertainties within this document required the project to redefine the components at an early stage through a Project Implementation Plan. This PIP represented a significant improvement on the original Project Document in terms of clarity, definition of tasks, financial allocations, workplans and evaluation criteria. These concerns need to be considered in the context of how they may affect final project sustainability and successful delivery of outputs.

B Project implementation

The public image of the project has been well broadcast at both the global and the national levels, and there has been excellent outreach by the PCU. Also, the awareness materials produced by the PCU have been very professional and effective. The PCU itself has done an exemplary job of project delivery, and of handling the global logistics for a complicated project under a situation of significant manpower constraints. The CFPs have also worked hard on implementation, and deserve much credit in view of the almost voluntary, and very definitely part-time nature of their roles as designated in the project. Just as much credit therefore has to go to the supporting role of the CFP Assistants who manage the day-to-day functions of the project. The CPTF provide a fine example for other projects

of how such a body should be both comprehensive in its membership and full participatory in its action. The GPTF is developing into a globally-effective body. It needs to develop a mechanism for closer contact on an intersessional basis, and probably more of a sense of project ownership.

The countries feel that a lot of the earlier problems experienced during the project in time-delays on agreements, contract and procurement could have been resolved if there had been more effective Terms of Reference and clearer definition of responsibilities within the original Project Document.

IMO tends to be very formal and bureaucratic in its process and administration, which is probably a reflection of its mandate and the very formal, legal nature of its business. This formal bureaucracy inevitably slows down administrative procedures and has restricted the speed and efficiency with which the PCU and project staff in general can carry out activities and do their day-to-day work. Hiring a consultant through the IMO system can be immensely time-consuming and frustrating requiring review boards and short-listing down to 3 people, etc. As one example, it took nearly a year to contract the Risk Assessment Consultancy. Some international Consultants were surprised by the inordinate delays, which seem to be an inherent part of IMO's standard bureaucratic process.

However, it is equally important to note that all stakeholders recognise the enormous 'value-added' aspect to having IMO as the Executing Agency. IMO is greatly respected in all matters to do with the shipping industry and its reputation for thoroughness gives the project a very necessary priority and level of importance. IMO can smooth out a lot of the political and diplomatic problems and is (in the opinion of the PCU and the Implementing Agency), without doubt, the most appropriate EA. But it is notable that the level of bureaucracy that IMO imposes on project administration does make it very difficult to function effectively, especially for a project of this nature that has very real time-constraints.

Some suggestions which were put forward, and which might have improved this situation include giving increased management and financial autonomy to the PCU, and adopting a pre-agreed list of consultants for GloBallast which could be used as required without the need to go through the costly and time-consuming process of selection.

The countries raised a query about why they had been expected to sign a MoU with IMO at the start of project implementation. As they understood it, every country had provided a letter of endorsement to the Implementing Agency for submission with the original Project Document to GEF. This effectively committed the countries to an agreements highlighted in the Document, including in-kind and direct contributions. However, such a letter of endorsement does not represent a legal document obligating the countries to what is presented in the Project Document. As the countries themselves did not sign the actual document it was felt that the MoUs would be a valuable contribution to cementing country participation. This is an approach that has been tried and tested successfully in other GEF projects.

Generally, this project has focused on the use of in-country and developing country experts and consultants. However, a concern has been raised by the countries with respect to the hiring of persons as expert national consultants. The project allows for national activities (Activity 1.B.4) that address differences in regional capacity and information gaps. Many national experts already work for government or academic institutes within the country. Often these people are not only the clear national leaders in their field, they are the only national experts, However, the IAs policies make it difficult for these people to be hired to work on project activities as they are government-funded and should therefore only provide their services under an 'in-kind contribution' arrangement. - This has become a common problem in the implementation of a GEF project, and a clearer policy needs to be defined by the IA in order to avoid delays related to such potential contractual constraints in future project implementation.

One fairly serious concern must be the acquisition and sustainability of a regional replication mechanism, along with active and effective regional fora. Currently, this is not happening at the necessary speed that would leave an effective mechanism in place after the project closes in 2004. Again, this must be seen as a fault in the project design. However, the countries and the PCU are

aware of this and the current Evaluation makes recommendations on how to address this issue through a proposed focused second phase. The reasons for the limited success of this component are discussed under ‘Project Design’ as well as in the actual Component Assessment.

The removal of barriers to the awareness of ballast water issues through the project has been a great success. Relevant stakeholder participation is also credit-worthy and these issues are discussed in-depth in this document. The transfer of knowledge with respect to lessons and best practices still needs some detailed attention. This is discussed in the Evaluation document, and recommendations are made to address this concern. Policy development will, as a matter of necessity, follow adoption of the Convention.

In general, project implementation has been effective and must be considered as excellent within the constraints imposed by the project design. Those components that are delayed are in such a position for reasons explained and discussed within the Evaluation text. For the most part these are not the fault of any of the project stakeholders but, again, are circumstantial to project design and delays in the progress in adopting the Convention.

C Project impact

Project impact, as a reflection of raising awareness and bringing the issues to the international policy table, has been excellent. The ballast water issue is now a ‘known-entity’ within the international donor community, the international NGO community, the academic sector and the maritime sector. The success of this project as far as its impact is concerned can be seen within the MEPC itself where support and interest in the Ballast Water Working Group had multiplied enormously in the last 3 years, increasing its standing membership from some 14 countries and organizations in 2000 to over 57 countries and organizations in 2002.

Generally, the countries consider the original project objectives to still be relevant and to address the concerns related to global ballast water issues. However, some countries expressed the opinion that the PIP does not provide adequate opportunity for the demonstration sites to get involved in research activities (such as ballast water treatment methodologies and the development of standards), which are felt to be very essential. However, 1.B.4 of the PIP allows countries to use programme funds for country-specific projects. So far, most of these have been technical research activities. The countries have also been fully funded to participate in the International Ballast Water Treatment R&D Symposium and the Standards Workshop (PIP Activity 4.4), and the PCU notes that it has been actively setting up twinning arrangements between the pilot countries and R&D groups within developed countries. A number of PIP activities (e.g. 3.2, 3.3, 5.2 and 5.5) also have significant research components which fully utilise and develop in-country capabilities.

The initial objective of raising awareness has been very successful at most levels and across most sectors, but clearly less successful at the senior government policy level. At nearly all levels there is awareness that there is a problem associated with ballast water discharges, but not everyone fully understands what this problem really is.

Although the project has undoubtedly achieved a high level of success with raising awareness, there is also a belief within some countries that the albeit important emphasis on awareness may have overshadowed the need for hard data and surveys. The countries feel that there is a need for more emphasis on the technical aspects of the project and on understanding the state of the existing environment and situation in ports. Only then can the project be considered to be truly a global demonstration project, providing a lead to other countries and ports on what needs to be done, and in developing best practices and methodologies for such things as baseline studies, long-term port environment surveys and ballast water surveys. However, it should be noted that technical activities relating to data collection and surveys are actually fairly extensive and comprehensive, as can be seen in the PIP activities 1.B.4, 3.2, 3.3, 4.4, 5.2 and 5.5.

At least one country expressed an opinion that they felt the project should have provided more assistance to national capacity building. The Port Surveys were cited as an example. The country felt that they already had the experienced personnel to carry out such an activity and only really needed the training and methodologies. On the other hand they felt it would have been valuable to send professional technicians away for capacity building and to gain experience in other countries that have already established procedures for Risk Assessment and Baseline studies. However, this opinion should be balanced against the fact that the PCU has always ensured that all the technical activities under the project have included capacity building components. This includes sending pilot country technical people to workshops in other countries. Furthermore, the use of standardised methods is vital to ensure that minimum quality standards are met and that methods are compatible between countries. Consequently, providing countries with just the methods and not the training and oversight would be detrimental to the overall coordination of project activities and methodologies. It is the opinion of the Evaluators that full and detailed training in such aspects as Port Baseline Survey and Risk Assessment can only be given effectively in the country or countries concerned. The standardisation of the methods is all-important to the success and sustainability of the project. Training and capacity building has to be focussed in-country if it is to be effective. One possible concern here is the need identified by some stakeholders, and the consultants, to repeat such exercises several times to ensure that A. the expertise has been transferred successfully and B. to capture all of the relevant human capacity that requires such training.

This project has brought together strategically different interests, in particular those of the environmental community and those of the maritime community. The former are concerned in dealing with issues of conservation and management of the environment, while the latter are concerned more with efficient management of shipping (cost and safety). There seems to have been quite a reasonable level of success in bringing these two different interest-groups to the same table to discuss their mutual concerns. However, there is still probably room for further consideration regarding how each group can better explain its concerns to the other so as to build on and invest in this growing partnership. Although the shipping industry may see the commonsense need to control potential vectors of invasive species, there may be opportunities for presenting the case in a different manner, and one which may generate greater sympathies. Most of the awareness seems to focus on the potential threat from such species but it often fails to define and quantify that threat in terms of lost investment, cost of remediation, damage to marketing, and loss of jobs. This tends to be more the language of the shipping industry as well as the policy-makers and more could be made of this approach within any awareness and sensitisation programme. Equally, a better (and justified) explanation by the shipping industry of the cost of the possible alternative management and treatment methods (and what this might mean in terms of profit losses, safety margins, cost to the consumer, and knock-on effects on job numbers) may also find some sympathy with those whose interests lie more with conservation and management of the environment.

Possibly one of the most important impacts which this project has achieved is in its engagement in the Convention development process. Although GEF frequently provides support to projects to assist countries to meet their commitments to international agreements (Convention on Biological Diversity, UN Framework Convention on Climate Change, etc), this is a model example of GEF providing important inputs to the Convention development process through project pilot trials leading to lessons and practices (which have been captured from project activities).

Finally, in assessing the impact which the project has had on international organisation, NGOs and industry representation one need only look as far as the GloBallast website and the number of links to complementary and supportive activities across all of these sectors. During a period of 5 months covering mid-June to the end of October 2002, the website shows 516,323 visits which averages at 3,661 'hits' per day.

4 Mid Term Evaluation results – by component and GEF criteria

Component 1: Programme Coordination and Management

Activities

- A.1. Human Resources
- A.2. Hardware
- A.3. Information and Communication Network
- A.4. PCU Travel
- A.5. Programme Evaluation and Review
- B.1. Establish Lead Agency and County Focal Point
- B.2. Support CPTF and CFP Assistant
- B.3. Support CPTF Meeting
- B.4. National Workplans
- C.1. Global Project Task Force

Overall project administration at the mid-term stage is running successfully and effectively at the global and national levels. Inevitably there have been some minor problems and constraints to project delivery, but many of these are to be expected during the earlier stages of the project, and many of them have been resolved and remain only as lessons for future project development and implementation. The Project Coordinating Unit (PCU), the functions of the Country Focal Points (CFPs) and the Country Focal Point Assistants (CFP-As), the Country Project Task Forces, and the Global Project Task Force are all function as intended and, for the most part, very effectively.

The PCU has done an exceptional job in running and coordinating the global project, particularly in view of the limited resources (funding and staff) made available to it through the project design. The PCU recognises that there have been some delays in delivery of outputs, but that these are, almost without exception, a result of limited human resources. The success achieved in raising awareness at both the country level and the global level, coupled with the rapidly growing interest and concern over ballast water issues, has led to a massive surge in demand on PCU time, materials and advice from partners and non-pilot countries in recent months.

The operational establishment of the office, recruitment of staff, equipment procurement, development of working relations with IMO, etc has undoubtedly been a success for the PCU. Generally, the countries are well satisfied with the level of back-up and support given by the PCU. However, some countries feel that the overall mechanism of support from the PCU to the country project level could have been more efficient and reactive. This is seen by the countries in the context of the excessive workload inflicted on the PCU by insufficient manpower being identified in the Project Document. This has occasionally resulted in last minute requirements or notifications from the PCU to the countries, giving them insufficient time to react. The countries also felt that response to requests for information or assistance could have been faster in many cases. However, this shortcoming should also be balanced in the realisation of the amount of effort that the PCU has put into addressing individual country needs, often by the physical presence of PCU staff in-country to assist and help in moving project activities forward. Clear examples of this include support from the PCU in the development of National Workplans (the PCU visited all countries to assist them in the development of their National Workplans). In fairness to the PCU, some of the criticisms related to poor or ineffective communication are historic, have been raised at the GPTFs, and have been (or are being) resolved by the Coordination Unit staff and management. Any criticisms towards the PCU tend to refer to the earlier stages of the project, when communications with, and guidance from, the PCU

were felt to be inadequate. Examples given include not advising the countries of their responsibilities to visiting consultants (e.g. cost of consultant local transport having to be covered by country project funds). However, all countries agree that the situation has improved with time and gradual understanding, and better communications. Overall, the CFPs and the PCU appear to have a good mutual respect, and a healthy and efficient working relationship.

All of the countries were sympathetic to the problems attributed to the PCU administration, and noted that the entire project hinges on the efficiency of the PCU. Yet, despite the core role of the PCU and its overarching responsibility for the success of a global project of this nature, it is the country's opinion that the PCU is definitely understaffed. This concern is shared by the PCU themselves who admit to such problems as struggling to circulate Briefing Documents on time due to staff shortages.

In this respect, the countries expressed concern about the amount of time that PCU staff spent away from the office travelling on ballast water related business, often at the invitation of other international bodies and agencies. This concern was raised again at the 4th GPTF where it was suggested that the PCU staff should now concentrate more on project activities and reduce the amount of time spent on travel. In defence of the PCU staff, they have been undertaking much of this additional travel as part of their regional/global commitment to Project Awareness. It should be noted that most non-Pilot Country travel is done by the Technical Adviser, whose salary is paid by IMO, with any such travel being funded by the invitees. GloBallast resources are therefore not used for this purpose. Participation in such events provides a number of significant benefits to the programme, including intelligence gathering (which feeds into the PCU clearing house mechanism), dissemination of expertise and lessons learnt, promoting the regional replication process, securing additional resources for the programme (e.g. IUCN funding of the newsletter, potential APEC funding for East Asia) and development of beneficial partnerships with direct benefits to the Pilot Countries (e.g. twinning between the pilot countries and R&D groups in developed countries). These functions are explicit in the TA's Position Description. However, it is feasible that a certain proportion of such regional travel and Programme presentation could be taken on by the capacities developed within each of the pilot countries and regions. The evaluators understand that this is now being given due consideration.

With regard to the Information and Communications network, the project must be applauded on its excellent website and equally exemplary newsletter which is distributed approximately every 3 months, and is both informative and of a very high quality. The PCU has also developed a comprehensive and well-stocked library and collection of bibliographies.

One area that did not seem to be covered too well was the potential for database linkage between the PCU and the countries, and between each country. In fact, the project is weak generally when it comes to networking between the countries. Communications between the CFPs in each country are poor or non-existent. This is also true of the CFP Assistants. This is an area that needs attention. The PCU has tried to encourage better communications but this is still not happening at present. The countries should not work in isolation and need a more common and collective approach within the project. This could be achieved through stronger and more frequent interaction and networking and particularly by having more opportunity at the GPTF meetings to discuss issues and common concerns outside of the more formal plenary meeting. The PCU has recently added an E-forum to the website to encourage more communications between the countries, but it seems that this has hardly been used so far. The PCU itself has noted that there appeared to be a poor appreciation of all of the elements of the global information clearing house mechanism and communication system that has been implemented by the PCU. It would seem therefore that more effort needs to be targeted at 'selling' the availability of these mechanisms and systems.

The countries were fairly unanimous in their praise of the efforts that the PCU staff undergo to ensure a physical presence within the countries where appropriate, and to provide on-the-ground assistance (for such activities as development of National Workplan, etc). The only criticism in this area is that the PCU staff are required to travel so often that they cannot fulfil their desk functions at the PCU as

effectively as the countries would wish. This is a reflection of project design and insufficient manpower, and will be discussed further in this Evaluation.

The PCU expects to receive status reports on all national activities on a monthly basis as well as frequent financial reports. However, the latter may not be monthly if there are no changes to report. National reports are produced annually. The PCU has provided each country with a template for these monthly activity reports.

In 2001, a Project Implementation Review was completed for the project. One of the clear shortfalls of the project identified in the PIR was the lack of formal indicators within the Project Document. These indicators are now included in the revised Project Implementation Plan (June 2002). The Descriptive Assessment of Project Impact is included as Annex I to this Evaluation. This provides a valuable insight into some of the earlier identification of project successes as well as constraints. Although the PIR has no overall Executive Summary, the overall assessment of project objectives at the time was satisfactory.

The CFPs have a varying degree of involvement in the project depending on the country. In some countries, the CFPs are extremely active, while in others it is the CFP Assistants that handle all of the day-to-day project activities while the CFPs only involve themselves occasionally and when necessary. The CFP position is, by nature, part-time and quite limited. All of the CFPs have full-time government jobs and have to make time to deal with GloBallast work. Consequently, much of the responsibility for GloBallast activities and deadlines falls to the CFP Assistants. However, the CFPs themselves feel it is important that the project is represented by a person in a government line position who has access to national policy-makers.

Some countries noted that the Terms of Reference and particularly the criteria used for selection of the CFPs could have been more clearly defined within the project document. In some countries the role of CFP is designated at Director level (e.g. South Africa) while in others it is almost at Ministerial level (e.g. Brazil where the CFP is the Secretary for Environmental Quality in Human Settlements). As well as the obvious lack of equality at the communication level, there is also a concern that having too senior a person in the CFP post may reduce sustainability and continuity within the project, as such a post is more likely to be at the whim of political change. Also, on a realistic note, it is unlikely that a CFP designated at such a high position within government will actually be able to be actively involved in the project. This concern seems to be true of the situation in Brazil, where the designated CFP has allocated day-to-day responsibility to a representative of one of the CFP's government departments. The person holding the CFP position in China has changed three times since project inception. As a future recommendation for other GEF projects it was suggested that more emphasis be put on ensuring the selection of an appropriate person for this role, and ensuring that person is maintained in that role and is not at the mercy of political sentiment. This would help to ensure a continuity of action within the project. There is some concern that the CFPs role will become very focussed and demanding when the project moves into the regional replication requirements. This will place almost full-time demands on the CFPs (who, of course, have their own national jobs to do).

The degree of contact between the CFP and the CFP Assistant varies from one country to another. In some cases, the CFP Assistant sits in the same building and is in close contact with the CFP (e.g., South Africa). In other situations, such as in Brazil, the CFP sits in the Ministry of Environment offices in the capital of Brasilia some 1,200 km away from the CFP Assistant who is in the Navy's offices in Rio de Janeiro. To complicate matters in Brazil, the project imprest account is administered by the offices of IEAPM (the Marine Research section of the Navy), which are a further 200 km away from Rio de Janeiro. This widespread geographic dispersal of project administration brings extra workloads and paperwork, and hampers communications and coordination for Brazil. Furthermore, in the case of Brazil, the CFP does not work directly with the CFP Assistant, but has designated an Adviser within the Ministry to do so. The Adviser and the Assistant communicate on a daily basis.

Most of the CPTFs are operating very effectively and with a good representation of stakeholders, although each country has examples of stakeholders that should be on the CPTF but which do not turn up and do not give enough priority to ballast water issues (e.g. India = State Pollution Control Board, Ministry of Environment and Forests; South Africa = Department of Health; Brazil = NGOs, etc). Generally, CPTF meetings are called by the countries when there are issues to discuss, and, on average, they seem to meet about once every 6 months. Iran has held 7 CPTF meetings so far during the current life of the project. Brazil has been functioning without a formal CPTF, but now feels that the time is right to develop such a body and will hold its first formal CPTF meeting in October. However, Brazil has maintained access to a loose assembly of stakeholders who work with the project as needed, many of whom meet within the national IMO forum prior to an MEPC meeting. The Coordinating Commission on IMO Matters (CCA-IMO) organises meetings of the maritime community in Brazil to discuss issues related to the IMO Conventions. Brazil has made efforts to ensure this comprehensive stakeholder group have been involved in the workshops to develop the National Workplan and Communications Workplan. It is notable that the Project Implement Plan identifies the CPTFs as having a number of responsibilities within the project. This has caused some concern with certain CFPs as the CPTF members have full-time jobs and can give very little of their time (especially unpaid) to fulfilling such responsibilities other than attending CPTF meetings. This leaves the bulk of the work resting on the CFPs shoulders. The CPTF members recognised that there was insufficient manpower resources available to the project in-country. Consequently there was a need to hire people, but there was no allocated budget to do this. South Africa noted that many of its CPTF members were line-managers and therefore extremely busy overseeing day-to-day activities outside of the project. They can only really get involved for the time-span of the actually meeting with perhaps a little preparation and follow-up.

Several stakeholders in several countries identified a desire that, in the event of the Convention going ahead, they would like to see a group such as the CPTF becoming a more permanent body. They are worried about continuity at the policy level. Changes in government can result in many changes at policy and senior management level. Stakeholders are concerned about the need to establish a structure to sustain awareness and continue support for ballast water issues and the project objectives.

All of the countries have completed their National Workplans using stakeholder representation, and have had them approved by the PCU. Iran noted that it had no national workshop for development of a National Workplan as such. However, the National Workplan was developed with the cooperation of all CPTF members through a series of meetings, and has been approved and is under implementation. Various other non-CPTF members, such as academics from Universities, were invited to these meetings, and a consultant (a University professor) was used as to develop the plan. Iran was particularly grateful to the PCU for its assistance in the preparation of its National Workplan.

Each country submits a monthly report on the status of project activities. In the early days of the project they would receive brief comments back from the PCU. This does not happen anymore. Again, this is almost certainly a reflection of workload versus limited human resources. The countries felt that it was both useful and constructive to receive these comments. This reporting process is generally valued by the countries as it helps them to stop and think about what they have achieved and what still needs to be done for each activity.

There are mixed feelings at the country level regarding the effectiveness and transparency of the GPTF. All of the countries feel that it is a very essential body. Some criticise it for not being effective enough and not having built a real ownership for the project amongst its members. Again, there seems to be a historically driven perception at work here. The first two GPTF meetings were held at IMO, London and were considered by all countries to be too formal and failing to provide a platform for discussion or country comments. In this respect the project had not initially created a global 'team' out of the GPTF members and the CFPs as has been seen in other GEF projects of a regional nature. It seems that the PCU has been given the impression that the countries are only present to advise and give opinion, and that the actual formal decision-making is the prerogative of the Executing Agency (IMO) and the Implementing Agency (UNDP). As a consequence, some of the countries have perceived themselves to be 'Back-seat' players who were expected only to 'rubber-stamp' decisions

in the meetings, while most of the discussion and all of the decisions were actually made by the PCU, IMO and UNDP. Furthermore, there is a lack of communication between GPTF members between meetings, and agendas are not shared or discussed beforehand and documents relating to agenda items are often presented for the first time at the meetings. One example quoted was the decision to extend the project by one year. At least one country held the opinion that it was unnecessary but felt obliged to agree with the consensus. All of the countries noted that the situation seemed to improve at the 3rd GPTF meeting in Goa, Republic of India. Here the proceedings were more relaxed, less officious and more congenial to open and transparent discussion. The countries have said that they would like to see more time in the GPTF meetings for discussion and agreement by consensus and less of a situation whereby the PCU and the IA are simply presenting agenda items for approval.

In general, therefore, it must be noted that many of the criticisms of the overly formal and non-participatory nature of the GPTFs are historical perceptions which are now no longer entirely valid. However, these perceptions are important and highlight an undesirable situation which should be avoided in the future.

The latest GPTF was held in China and was attended by the Evaluation Team. This was very open and transparent, and a successful model example of good democratic practice within a Task Force of this nature. Regrettably, only one NGO/Industry representative attended this meeting. However, the agenda was very tight and limited discussion. All of the countries agree that a schedule of annual GTPF meetings is appropriate and would not wish to see any more or less.

So far, the countries report that there have been no scientific or technical advisory groups created specifically to assist the GPTF. As many of the problems associated with ballast water issues are technical ones, several of the countries feel that such groups would be valuable. The PCU notes that such a group was assembled for the 1st International Ballast Water Treatment Standards Workshop. Furthermore, scientific advisers were engaged to give presentations to the 2nd and 3rd GPTF meetings.

The Implementing Agency, at the global level (i.e. UNDP GEF in New York) has fulfilled its role as required, assisting with the early implementation process, advising on the appropriate administrative procedures, attending the GPTFs, etc. The PCU has noted the very supportive role of the IA, whilst clearly avoiding any micromanagement. The Implementing Agency has provided valuable advice and experience to the PCU in the administration of the project and in matters pertaining to UN rules and procedures. However, at the country level there has been little or no involvement of the UNDP Country Offices in this project. China is the exception in this case (the Evaluators were informed that the UNDP Beijing Office is an active member of the CPTF). It is probably important to note that this project is ‘different’ from typical GEF IW Regional projects, where the UNDP Country Office in the country with the PCU almost always plays a very important administrative support role to the GEF project. In the Globallast case, the PCU is based in a UN agency and should therefore have immediate access to a wide range of expertise and resources regarding UN administrative and financial procedures and requirements. Therefore, in principal at least, there should be less need for the kind of administrative backstopping which the country offices would typically provide. Nevertheless, the apparent lack of involvement on the part of the UNDP Country Offices is disappointing as one of the criteria which GEF used in adopting UNDP as one of the 3 original GEF Implementing Agencies was the ‘value-added’ potential which UNDP can offer by virtue of its network of country offices, and the skill and experience of UNDP staff in correct administration, reporting, evaluation, monitoring and auditing procedures for projects. UNDP Country Office representation has been invited to all CPTF meetings in all countries, but almost always they choose not to attend. The project tries to follow the correct UN procedures but, in some countries, this is made difficult as a result of lack of support and advice from the UNDP Country Office. In Brazil, All UN environmental and development related projects are usually handled by a Project Support Group within the Ministry of Environment. However, because the UNDP Country Office is not involved in this project this support group would not take any responsibility for coordinating and advising on the project administration. However, this is clearly both a UNDP and a UN IMO project and it would have been fully justified to place some responsibility for the project under this coordination group, which has much experience in UN procedures and requirements. In fact, as in nearly all of the countries, there is no contact between the GloBallast project and the UNDP Country Office in Brazil. Despite this apparent general lack of

interest shown by the UNDP Country Offices in the project so far, the PCU has stated its intention to continue to keep the UNDP Country Offices informed and aware of ongoing ballast water activities.

The Executing Agency (IMO) is seen as a very professional organisation, which lends the project a lot of credibility and respect from the global community. Although there have been complaints about the unnecessary bureaucracy of the organisation and the time-consuming formality accorded to all administrative procedures, all stakeholders seem to agree that IMO is the most appropriate Executing Agency for the project. Being linked to IMO has opened doors for the global project at a senior governmental level. One country did express concern that it had never been given the opportunity to liaise with relevant IMO administrative staff over budget management, procurement procedures or contracting. However, the PCU notes that a representative from IMO's Budget and Finance section has attended every GPTF meeting and the associated bilateral discussions. The concern by the countries seems to focus on the need for some training on the very rigorous and fairly inflexible requirements associated with UN Agency finance and procurement. This is generally arranged at the beginning of other GEF projects implemented by UNDP and seems to have been an oversight in this project. However, a valuable lesson has been noted here for future GEF projects. Stakeholders associated with the GPTF felt that the project should be looking at building the institutional base for addressing the invasive species issues outside of the IMO mandate as well. This would, they felt, require forging new partnerships and developing innovative funding mechanisms.

The 4th GPTF noted that too many of the project's resources now risk being diverted to non-project related issues. This is a result of the level of interest that has been generated by the project and the development of the Convention. There is an urgent need now to encourage IMO to start taking over the responsibilities for many of these issues (especially where directly related to the Convention) and to contribute additional resources in support of global ballast water issues. It should be noted that a significant amount of the demand for information and support is coming from developed countries, that do not justify direct support from a GEF project. At present, IMO has no serious or effective 'in-house' capacity or expertise on ballast water issues (although one of the PCU technical positions is funded by IMO and could be considered as 'in-house' as long as the budget line for this is maintained). IMO relies on the project PCU to handle this area. Although one of the core functions of the PCU was to develop a global clearing house for ballast water related issues, the intention was that this function would be encapsulated within some form of Convention Secretariat in the long term. The opinion expressed within the GPTF was that as much use as possible should be made of the network of national expertise (developed through the project) in providing assistance on ballast water issues and attending relevant regional and international meetings. This could help to ease the demands on PCU time and staff.

There has been some criticism of the multi-layered approach design of the project's administrative structure. One country in particular felt that the IMO/PCU-down administrative approach was too military and that there are too many Task Forces.

The project is still under-spent (although certain specific budget lines are reported to be exhausted). Delays in expenditure are related partly to the slow execution of project activities by the countries (partially a reflection of lack of human resources), and partly to the bureaucracy under which the PCU has to operate (within the policies and regulations of the EA) which restricts the efficiency with which funds can be disbursed and hence limits the progress of activities. Now that the project has been extended for another year this should be resolved.

The extension of the project for a further year was approved by all GPTF members at the 3rd GPTF meeting in Goa. Inevitably this required a budget review and reallocation of budget funds to cover additional activities and support for 12 months (including Ballast Water Sampling and Port Baseline Survey Workshops for the countries, an additional GPTF meeting, and salary costs for the PCU – although some of the latter is being covered as an in-kind contribution from the EA). This was all done within the original GEF budget allocation. This budget revision and re-allocation was done in a fair and equitable manner with the approval and agreement of the country representatives, the EA and the IA. In reality, some countries were having difficulty in disbursing their allocated funds (as a result

of exchange rates giving them more local money per dollar) and all countries were behind in their forecasted expenditure. Another carefully focussed and purposeful budget review may be in order in view of some of the Evaluation's recommendations.

The overall view of the funding and disbursement process is one of being generally efficient, although the usual bureaucratic delays have been incurred that are so often associated with execution by a large multinational UN organisation. Some countries have queried the apparent variance within each country for handling procurement or cash movements, there is a perception that in some countries the accounting process follows simpler procedures than those defined in the document 'Establishment and Maintenance of an Imprest Account' provided by the UN. The PCU is satisfied that this is not the case.

However, there have been a few fairly minor country-specific problems with the disbursement and accounting process which might have been avoided or resolved if the project at the country level had received more support and advice from either the Implementing Agency representatives (the UNDP Country Offices) or from the Executing Agency, both of which have established procedures and much experience in these matters. At a country-specific level, Brazil has experienced some in-country delays in procurement and funding, but these are not the fault of the PCU. Internal arrangements for handling funds in Brazil are less than satisfactory. IEAPM (the Navy's Marine research section) handle the project accounts. It was decided that this would be easier than trying to open a new company account under the Ministry of Environment (Lead Agency). There were many problems with establishing the account, which delayed the start of activities in Brazil until June 2001. It also creates delays in the monthly financial reports to the PCU. Iran has also experienced a few problems, which initially delayed national project implementation. However, these were internal in origin (project funds can only be accessed by a Finance Officer designated by the Lead Agency), but serve to demonstrate that initial project implementation in a project of this nature can be more complex than originally expected. China has similar financial arrangements to Iran. The PCU has been very sympathetic to this and, in a demonstration of pragmatism, has tried to include these financial officers in the GPTF meetings so as to impress on them the importance of the project. This has its drawbacks, however, as they can only fund two people from each country, which should ideally be the CFP and the CFP Assistant. In future, it might assist project implementation in the early stages if the project document has an annex clearly defining disbursement and accounting responsibility and 'chains-of-command' for each country.

Certain countries have also questioned the limitation of US\$2,000 as the top limit of expenditure that a country can approve. They had been informed that any higher expenditure than this in-country would require authorisation from IMO in London. This is despite the fact that national workplans have been approved by the EA, and these workplans define national budget requirements. The countries have noted that such authorisation requirements can cause real delays in activities and general project progress. Under the circumstances, and with national budget requirements having been detailed and approved, this limit of \$2,000 would seem unnecessarily draconian and inappropriate to the need for effective and timely implementation of project activities. In all fairness, none of the countries have ever requested approval for expenditure exceeding \$2,000.

Inflation has caused some anomalies that have been both negative and positive. In the case of the CFP Assistants, their salary is paid in local currency. Contract periods are between 12-15 months. Their salary is only reviewed at the end of the contract period and the salary raise given is usually lower than the inflation rate. Inflation in countries like Brazil and South Africa is high. Consequently, the CFP Assistants are earning less and less money as the project progresses and are in severe financial difficulties toward the end of each contract period as their salary remains fixed but inflation rises rapidly. On a more positive note, some countries are finding they cannot spend the dollar budget allocation within their national workplan as the same amount of dollars buys more local currency every month. In view of these two conflicting scenarios, it would seem to be more compassionate and certainly more fair if the PCU/EA could make provisions to ensure that the CFP Assistants do not suffer financially as a result of national inflation in relation to their contractual commitments, this

being a situation beyond their personal control but with some fairly serious financial implications to their earnings and ability to support homes and families.

Under 1.B.4 (as part of the National Workplan funding) countries have developed some country-specific activities in support of the GloBallast programme, primarily aimed at filling gaps in technical knowledge.

Brazil has developed two projects. One is a study of the introduction and impacts of the Golden Mussel, *Limnoperna fortunei*, in Brazil. Two meetings were held involving representatives from the Ministry of Environment (MoE), the National Agency of Waters and the GEF Pantanal Project to discuss the impacts of this species introduction in the Pantanal, an extremely sensitive area from the biodiversity point-of-view. It is expected that, in 2003, MoE will allocate extra resources for accomplishing some of the activities required under this project. A further country-specific activity in Brazil is the production of a book on 'Ballast Water and Bioinvasion' in both Portuguese and English.

China is undertaking research on the possible carriage of 'red tide' producing dinoflagellates in ship's ballast water and providing 'red-tide' information to ship's captains. They are also undertaking research on the impact of the chemical treatment of ballast water using chlorine compounds. Both of these research projects have been approved by the PCU, and the activities have been started in Dalian.

In India, the 1st R&D Seminar was conducted in June 2002 at the National Institute of Oceanography in Goa. Recommendations from this seminar have been documented in a set of proceedings and a copy of the proceedings has been forwarded to all the GloBallast demonstration sites, and the PCU. Furthermore, an article on the seminar has been submitted to the PCU for publication in the Ballast Water Newsletter. India has also published an article entitled *Marine Bioinvasion: Concern for Ecology and Shipping* in the journal 'Current Science'.

Iran has initiated discussions with Australia to develop a Twin Port concept. This would involve a special bilateral relationship between Iran/Khark Island, and a twin port in Australia that is advanced in the field of ballast water management, and that is in a position to provide direct technical assistance. Brisbane and Fremantle have already been officially contacted. Iran has also identified the fact that effective implementation of ballast water management measures at Khark Island (or any port) requires a detailed understanding of the physical oceanography related to that port and adjacent areas (especially current regimes, circulation patterns, salinity, temperature and turbidity ranges, etc). It is quite probable that species introduced through ballast water discharges at Khark Island may be transported downstream to impact other areas and other countries. A detailed research plan and budget is under development and will be submitted to the PCU for review and approval.

South Africa has submitted a proposal for a phytoplankton monitoring project, but this has not been approved by the PCU in its current format. A third version of Terms of Reference has recently been submitted for reappraisal and, hopefully, approval by the PCU. Terms of Reference for the pathogen sampling programme and the *Aureococcus* case study development have also been submitted to the PCU for approval. South Africa is also developing a proposal to conduct a treatment technology workshop, in collaboration with a PCU-proposed activity, which will bring treatment technologies from the United States to be tested in South African waters.

Ukraine has presented its project on Electronic Satellite Monitoring of Ballast Water Exchange at an International Workshop in London (April 2002). This has also been published in the Ballast Water Newsletter. They have also reported on progress with their GloBallast programme at the 2nd Scientific and Practical Conference on Shipping Safety and Effective Shipping Management (Feodosia, June 2002), the Annual International Symposium on Ecological Problems of the Black Sea (Odessa, Oct-Nov 2002), and the 5th International Exhibition-Symposium on Shipping, Shipbuilding, Ship Repair and Port Development (Odessa, Oct 2002).

All of the country-specific activities are logical additions to the GloBallast effort and demonstrate country commitment as well as an active effort on the part of the PCU to meet and support national needs.

Component 2: Communication, Education and Awareness Raising

Activities

1. Programme Identity
2. Generic Communication, Education and Awareness Raising Materials
3. Case Studies
4. Country Communication Workshops and Workplans
5. Implement National Communication Workplans

Between the PCU and the project staff in the demonstration countries a high-profile programme identity has been created. Project logos and the overall GloBallast image are well-known throughout the maritime community as well as the related scientific and technical sectors.

Every country has noted that the project has made a major difference to national and global awareness of ballast water issues. The project has developed a very successful public image throughout the world through the development and adoption of a professional identity. This is apparent in the global and national websites, programme logos, newsletters and reports.

However, countries are sensitive to the need to handle the awareness issue sensibly, diplomatically and rationally. Too much pressure on, for example, fishing communities about the problems of ballast water could cause communities to react strongly against the government, giving the project a bad name and losing government support. Likewise, catalysing a strong reaction against the shipping industry could jeopardise their support. For the same reasons the linkages between ballast water and health need to be handled very cautiously in awareness campaigns.

In most of the countries, awareness was practically zero when the project started. Now countries have developed awareness documentaries, short television clips, education programmes orientated at teachers, press conferences with the media, etc. This has targeted millions of people in some countries and many millions throughout the world. The PCU is providing a lot of assistance with awareness materials, which the countries adapt to suit their needs and translate into pertinent languages. The countries also produce some of their own awareness materials. These are often quite sophisticated and effective.

In Brazil, GloBallast awareness materials have been translated into Portuguese and circulated to government institutions, the shipping industry, and other stakeholders. A news release has been prepared for the media and interviews given to national newspapers. A national website is now nearing completion. The national project has given formal presentations on GloBallast activities to an inter-ministerial group. They also keep the Navy informed and aware of project implementation. All of the stakeholders who attend the MEPC technical meetings and Inter-ministerial meetings have been educated in the problems associated with ballast water. The media are also aware but less well-informed. One of the activities specified under the National Workplan is for the preparation and distribution of an awareness video. A video producer has been contracted and work has started on the video within the ports of Sepetiba and Rio de Janeiro, as well as the Itaipu hydroelectric Plant (where the Golden Mussel and its incrustation of cooling intakes presents a classic example of the problems arising from invasive species). The video is also looking at institutes which will assist in monitoring ballast water issues (Port baseline Surveys, species identification, etc). A first edition of the video has already gone to the Ministry of Environment. The MoE is also preparing a poster concourse regarding ballast water management and introduced species as a means of awareness raising.

In China, a Chinese/English version of IMO Guidelines has been prepared and is available onboard ships. By the end of July 2002, six seminars have been successfully held, and another two seminars will be held shortly in the south of the country. The CPF-A has attended three national meetings on the protection of the marine environment and delivered presentations on ballast water issues and the GloBallast Programme. The 1st and 2nd 4-page ballast water news were prepared and disseminated at relevant meetings and seminars and also as the middle pages of the journal “Transport and

Environment Protection”. The 3rd ballast water news has recently been printed. A web site under the name of “<http://globallast-china.org>” has been prepared and opened both in Chinese and English. Central TV has transmitted a documentary film entitled ‘Stop unwanted stowaways in ballast water’.

In India, the NGO community is doing an admirable job in taking ballast water issues into the communities and schools. It has helped that the NGO community is represented on the CPTF. PowerPoint presentations have been developed to transfer information and concepts to other countries in the region. Short awareness clips are being shown at train stations, cinemas and on TV. Awareness documentaries are also being prepared for TV. Much of this is being handled by a national NGO group (RMP). Presentations on ballast water management measures and threats have been made to the maritime institutes in Delhi and Mumbai. Awareness raising activities have been conducted in the coastal state of Maharashtra and Goa (near the pilot site) targeting fishing communities, school and college students, and teachers as well as community representatives. In general, India has developed a variety of high-quality awareness materials for distribution both nationally and regionally. The national website has been constructed and will be launched very soon. India has also produced a very effective visual presentation (on CD) of ballast water issues called ‘Saving the Seas – The Indian Experience’, which was shown at the 4th GPTF in Beijing.

Iran is facing the problem of an infestation of Comb Jellies in the Caspian Sea, and toxic dinoflagellates in the Persian Gulf, so the concerns about invasive species and the medium in which they are transported is a very real one for that country. The public and the authorities are now well aware of the problem and the on-going activities to try and resolve it. Iran has distributed various awareness raising tools (developed by the PCU) at the national and regional levels. They are developing posters in both Persian and Arabic, and are releasing various publications and media information packages.

In South Africa, the project is beginning to present a good global image and is raising global awareness. They identify the need to do more on awareness, especially at the school level, and they need to do more outreach to the communities. Also they recognise that sensitisation and awareness has been weak at the higher levels of government. The national Website has been developed and is on-line, and a new national GloBallast poster has been designed, printed and circulated. Some regional awareness raising presentations have been given at international for a. The PCU has approved terms of Reference for the National Communication Officer and a suitable applicant has been contracted. The Communications Officer is currently revising the website as well as planning a National Coastal Outreach Programme. The CFP and CFP Assistant also attended the WSSD to support the GloBallast National Display in the IMO stand.

In Ukraine, awareness has focussed on television and popular newspapers as well as in the professional journals for seafarers. Ukraine has also produced posters in Ukrainian and translated GloBallast materials into both Ukrainian and Russian. Awareness raising lectures have been delivered to schools and colleges. Also two videos have been produced, one a more general scientific approach and discussion of ballast water issues, the other aimed at specialists for training in Port Baseline Survey techniques. The Odessa GloBallast website is fully functional and available in three languages. Furthermore, the GloBallast programme and its objectives have been presented to formal meetings and conferences of the shipping industry. International awareness of GloBallast activities within Ukraine got off to an early start with a detailed report on Ukraine’s activities in GloBallast being delivered to the 1st GEF International Waters Conference in Budapest (October 2000).

The GloBallast Programme as a whole, under the initiative of the PCU, explored the possibility of developing a Global TV Documentary. This was not an activity which was specifically included in the original ProDoc or the PIP. In order to fund this the PCU asked the countries to relinquish some US\$120,000 from funds which had been intended for national use. Furthermore, the PCU managed to leverage an admirable US\$600,000 in co-funding from external resources. Not all countries were in agreement with this, feeling that the cost was too high to be justifiable and that a cheaper but effective product could be explored. However, the PCU felt that there could be huge potential benefits from such a documentary reaching out to an international audience. In the final analysis such a proposed

documentary was considered to be ‘inappropriate’ by the Executing Agency (IMO) and the concept was dropped. However, the fact that this had attracted a significant amount of co-funding must reflect both on the perceived importance of GloBallast issues, as well as the effectiveness of the PCU to represent the countries in their negotiations with the private sector.

Not all countries agree with the approach of this component. In Brazil, there has been concern and argument over the emphasis on education. Brazil feels that the project should concentrate more on communication and awareness. Brazil is not currently intending to undertake activities in awareness at the school, college or institute level. Neither will their training in ballast water issues in the Naval Seafarers Institutes. National thinking in Brazil is that any such training should be approved under the STCW Convention (which defines the formal training requirements for seafarers).

Although the countries have gone through the process of developing case studies for specific incidences in their countries, they need more information about such invasive species. The countries have expressed a very real and urgent concern regarding the case studies. These national cases studies represent one of the earliest activities of the project and were carried out in late 2000. However, none of the countries have seen the final reports. This is of particular concern as the country stakeholders feel that these reports would be very valuable in providing documented incidences for presentation at the policy-level in support of ballast water issues and activities. The countries recognise the need to engage the policy makers in the Convention development process and to sensitise them more effectively regarding GloBallast objectives. Case studies relevant to each demonstration country would help to ‘bring home’ to national policy-makers just how real the problem is and how it is having an effect on their very doorstep. Country stakeholders throughout the project are now extremely anxious to receive these case study reports and would urge that they are now treated as a high priority within the project’s outputs. The PCU is aware of this concern and regret that it is a reflection of the workload versus the shortage of human resources in the PCU. They do feel that all parties will be impressed by the high quality of the product once it is finished.

Some countries have developed separate Communications Workplans, and others have included them as part of the National Workplan. However, the separate Communications Workplans have not been independently approved by the PCU according to the countries. There were no guidelines provided for developing a National Communications Workplan. Brazil borrowed China’s Workplan as an example.

Iran has already adopted its national Communications Workplan.

The NGO community (as represented on the GPTF) felt that public awareness materials should be developed in more local languages and not just English.

In general, Component Two has been very successful in raising awareness and improving the level of education on GloBallast, as well as creating an effective programme identity. The lack of access to the case studies for use by the countries represents a Component constraint which can and should be rectified as early as possible.

Component 3: Risk Assessment

Activities

1. Ballast Water Risk Management
2. Port Baseline Surveys
3. Information Gap Filling
4. International Port Survey Workshop

A Risk Assessment team has visited every country and provided standard methodologies for collecting RA data. They have also identified discharge practices during this exercise, including port policy on discharges, timing of discharges, areas of discharge, etc. The Risk Assessment activities are being carried out in stages. The purpose of the first visit was to meet and brief the counterpart team,

check the adequacy of the computer resources, test software, review data, and train counterparts on data collation tasks. The team will return to the countries again to review the data. Originally there was no funding allocated in the budget for RA by the countries. However, after the CFPs raised this as a concern, there was a budget reallocation to provide \$3,000. Some countries do not feel this is enough to do the job properly. They are also worried that the Port Surveys follow a standard Protocol, which may be too generic and may not address certain issues in specific countries or certain potentially invasive microorganisms. However, the PCU points out that an explicit part of this activity was to adapt the protocols to local conditions at each demonstration site, and that this has been done.

The current project does not include ballast water sampling from visiting ships as a project activity under Risk Assessment. The Risk Assessment for invasive species is only looking at 'source' and 'sink' ports, checking on what species exist *in situ* within the port environment. However, activities 5.2 and 5.5 will fund equipment and provide training for the countries to carry out such activities should they wish to implement such sampling strategies. Although the countries wanted sampling of ballast tanks included in the risk assessment activity, they were informed the GEF would not support this as it was considered to be scientific research, which does not fall under GEF's criteria for funding. However, this interpretation of the GEF criteria for funding is not strictly accurate. Although GEF will not fund pure scientific investigation without a GEF-related justification, it will and frequently does support technical analysis of a problem which represents a barrier to project objectives, or is pursuing an innovative or more cost-effective and replicable methodology. The GEF Operational Strategy contains several references to 'support for technological advances', and 'providing assistance for inventories, compilation, and analysis of information' as well as capacity-building for 'targeted research, including analysis and application of relevant information'. The real criterion for judgement of whether it can be funded by GEF is whether the information gained can be justifiably said to be of global benefit within the project's objectives. OP 10 (the Contaminant-Based Operational Programme under which the GloBallast is justified) makes several references which would support information monitoring and/or gathering to better understand the transfer of invasive species in ballast water, as well as supporting 'costs associated with targeted research to assess the impact of specifically identified priority contaminants on human and ecosystem health'.

The Risk Assessment activity is therefore effectively a desk-top exercise that uses sets of collated data to logically semi-quantify and rank the different risk posed by vessels on different trading routes that intend to discharge or pick up ballast water at a demonstration site. The results will allow any future ballast water tank sampling effort to focus on the riskiest routes. Countries cannot afford to undertake sampling of all ships, and the industry would complain about the delays in any case.

There was some criticism from the stakeholders of the lack of preparation for the Risk Assessment exercise. The second visit by the consultants (in which the RA exercise is performed) takes 8-10 days, and few of the counterparts that were invited could actually afford to give up this much time. Those that did attend did not always understand how they would make use of the training and knowledge afterwards (i.e. at sites where no 'Lead Agency' for RA has so far been identified). In one country, the stakeholders attending the RA wanted to work with the lead agency to set up a working group to discuss this issue after the exercise, but this never happened. At least two countries felt that they were not advised as to what they were required to do as far as support was concerned, and they had no budget for such support in any case. This was perceived as lack of guidance from the PCU, yet the countries felt that they were then blamed for not being ready with support when required. However, to counter this criticism it should be noted that one of the International Consultants on the Risk Assessment team was invited to attend the 3rd GPTF meeting in Goa. This was a briefing exercise with respect to the computer hardware needs, counterpart numbers and entry-skills, and data collation requirements. The Consultants found this briefing to be very useful, and also allowed negotiation over the site visit schedule thereby making it more manageable and acceptable to all countries. Yet even the consultants felt that the majority of assembled counterparts were not aware of what was expected of them and expressed concerns about the language translation and timely circulation of the briefing materials. However, it was noted that the countries had more than a year to prepare for these Risk Assessments, and they were provided with comprehensive briefings at two GPTF's (2 and 3). They were also provided with the draft Terms of Reference to review twice, and the lead risk assessment

consultant attended the 3rd GPTF to provide full details of what was required of countries well in advance.

In South Africa, the first stages of the ballast water risk assessment activity were successfully completed in August 2002. This activity involved two in-country workshops. South Africa now believes that the capacity exists in-country for the replication of this activity at other South African ports. The National Port Authority is already planning to undertake a Risk Assessment exercise for Richard's Bay port. The country project staff have received favourable feedback from stakeholders over the Risk Assessment. The Ship Owner's Association representative on the CPTF attended the Risk Assessment exercise and stated that the project is now starting to make sense to them and they can finally see what it is trying to achieve, what the practical applications will be, and how they will be translated into policy and legislation.

The Risk Assessment process can be very time-consuming and demanding. China reports that the collection of 12 samples each from 52 stations took some 38 diver-days.

Generally, improvements to this exercise may be simply a matter of providing stakeholders with a clearer and simpler definition of the Risk Assessment exercise prior to the arrival of the RA Team. (although see comment above regarding Consultant attendance at Goa). A lot of effort seemed to be necessary to find and convince suitable counterparts to attend the Risk Assessment exercise. Skills in English were also found to be limited among the counterparts in some countries, and no funds were provided by the PCU to provide translation resources. The Consultants noted some particular concerns over insufficient funding during their visit to Dalian. However, the exercise in Dalian was ultimately very successful, with the data from 3,200 ballast water reporting forms collected from ships and keyed into a database during the time between the two consultation visits. Data collection has been extended in China to six domestic ports having major trade with Dalian.

The Consultants have noted the importance of providing time and resources to ensure appropriate counterparts can be located before any capacity-building activity starts. Furthermore, these counterparts must be allowed sufficient time to undertake their project duties. Some of the counterparts have had undue stresses placed on them, mainly as a result of a lack of adequate in-country funding and support mechanisms.

As part of the provisions of their ToR, the consultants considered the sustainability of their activities, and noted an apparent lack of any formal project provisions or in-country mechanisms for ensuring long-term capacity or use of Risk Assessment, particularly the need for one defined agency in each country to accept responsibility for these activities. They have been alerting the sites to this issue during their second missions, partly to apprise them of the need, and partly to catalyse a thought process in country representatives which might lead to a solution. One important shortcoming noted by the consultants was the lack of provision for sharing lessons and experiences between the various national risk assessment activities. Consequently, the consultants have recommended a 'wrap-up' international workshop and are trying to assist the PCU in finding funds for such an activity. Several countries are already implementing arrangements to replicate the risk assessments at additional ports using their own resources, and regional replication provisions of the Programme are designed to utilise the Pilot Country risk assessment teams to undertake regional risk assessments.

Most of the persons involved agree that the funding for the Risk Assessment Exercise has generally been inadequate and is causing constraints to the effectiveness of the delivery. However, the Consultants are confident that all sites will achieve an acceptable Risk Assessment result, although they predict the effectiveness and overall outcome of their training will vary from site to site. In at least one country, unexpected and unexplained mid-training changes to the counterparts caused severe strain on the training exercise, along with a significant reduction in training effectiveness.

The Consultants to the Risk Assessment activity feel that the Activity, as initially implemented, lacked a crucial 'wrap-up' process whereby the results of all 6 countries can be presented and objectively reviewed and where outstanding questions and concerns about method and application can be addressed. The Consultants noted that the PCU agreed with their sentiment soon after the Activity

started, and all sites have supported the undoubted value of a 'wrap-up' workshop. An international workshop on Risk Assessment methods, results and application would be a valuable closure to this activity in respect of the GEF project's obligations. In response to this request, the PCU has now added a final 'wrap-up' process consisting of a final round of country visits by a consultant (scheduled for early 2003) followed by an international workshop that will include provisions for discussing long-term capacity.

In the case of the Port Baseline Survey, the project teams were well prepared and organised for each of the workshops. Necessary provisions had been made for translators, office space, presentation facilities, etc. Contracting and assistance from the PCU was considered to be adequate. However, during the surveys, it was found that many of the teams were inadequately prepared. This was considered to be a reflection of the fact that they had not received the necessary funds from IMO. This was an issue in a number of the countries. This meant that necessary field equipment had not been purchased or manufactured. Ukraine has been quoted as one example where such funds failed to come through in time, despite several requests. As a consequence the survey could not be adequately undertaken and the consultants undertook methodology training at a curtailed level.

There were certain difficulties in each country with the PBS work. In some cases this was due to a lack of preparation within the country, while in other cases it was down to an overall lack of awareness of the logistical needs of such surveys. Most problems seemed to be related to a lack of understanding of the survey protocols, which could have been a result of language difficulties or simply a lack of thorough preparation despite the instruction and advice given at the workshops.

The time-frames allowed for this exercise by the project budget and overall short timeframe of the project were restrictive, and did not therefore allow training to be tailored to individual country needs. Some countries needed more oversight in the survey process but this was not possible as a result of the limited time available. Also a post-survey component should have been included (e.g. taxonomic sorting and identification of introduced species) but this did not occur. From a biological perspective, the surveys were successful in that they initially identified 25 introduced species and 26 suspect species. Furthermore, a number of new species were collected during the baseline surveys.

The ToR provided to the PBS consultants explicitly required the surveys to target only sites impacted by ballast water (in contradiction to the CRIMP protocols that specify targeting all possible transport vectors as well as pristine control sites). Identification of introduced species requires training and considerable expertise. It would be highly ambitious to expect any of the countries to be able to identify introduced species with any certainty without assistance from experts in the field of invasion biology and taxonomy. The methodology taught during the PBS relies on identifying all specimens collected to least taxonomic unit. The PBS consultancy team provided the PCU with a list of global taxonomic experts for distribution to all participating countries.

The PBS consultants noted that, from their experience, it takes at least 3-4 training surveys for a team of biologists to be able to adequately survey for introduced species, while non-biologists would require more time and oversight. All survey designs should be vetted by an invasion biology specialist, to guarantee congruity with the protocols and sufficiency of sampling. The field survey is the simplest aspect of the work. The post-survey sorting and identification, vouchering and verification of collections, determination of a species status and databasing of information is extremely important, time-consuming and typically under-funded. The PBS consultants have not been involved in this process although they were willing to assist and have the necessary expertise.

Generally, the countries are pleased with the Port Baseline Survey as an activity and feel that it was handled well overall. As with all activities under the programme, time and scope has been limited by the available budget and the short time-frame of the overall project as well as the linked nature of various activities. The countries feel that the amount of money allocated for the baseline surveys was too little (US\$50,000). However, it should be noted that Australia conducts similar surveys for the equivalent of \$US30-60,000 in what is considered to be a cost environment that is considerably more expensive than the Pilot Countries. Furthermore, it should be noted that the Pilot Countries are

expected to contribute support-in-kind to the port surveys. In most countries, the actual funds expended upon completion of the surveys have been significantly less than the allocated amount.

India has noted that, in some it is more complex than doing one survey. As well as changes in the balance and distribution of species between summer and winter, India has changes associated with pre- and post-monsoon. However, the PCU advised countries from the very beginning that two baseline surveys should be done (to cover seasonal variations), and that China, Brazil and South Africa elected not to do these. Concern has been expressed by at least one CPTF that the country received no Terms of Reference for the PBS, and no defined timescale for the consultancy. Some countries feel that they could have undertaken the work themselves if they had been sent the methodology. India also noted that it is predominantly an importing country. This means that millions of tonnes of ballast water are carried out of the port to other ports around the world. This makes it even more imperative to have accurate baseline surveys of local species, as some of these may constitute a major threat to other global ports. However, India still 'imports' some 2.8 million tonnes of ballast water per year and this remains a concern from the Risk Assessment point-of-view.

Iran has recognised the need for two phases of port biota sampling and survey to be carried out (summer and winter) at Kharg Island as part of the Port Baseline Survey. The programme has originally proposed one survey phase but advice from the national scientific team supported two phases for the two main seasons to increase the accuracy and applicability. As a result, additional national resources were used to expand the survey. These two phases have now been completed and over 80% of the samples have been analysed so far. The final report is expected to be ready in the near future.

In South Africa, a phytoplankton Identification Manual has been produced as a result of the survey conducted in Saldanha Bay. 50 copies have been published for national and regional circulation and the PCU has proposed publishing the manual as part of the GloBallast Monograph series for global distribution. As with the Risk Assessment, the National Port Authority has proposed replicating the Port Baseline Survey activity at Richard's Bay and at the newly-developing Coega Harbour, and has approved the commitment of funds for these surveys at both harbours. Planning for the port survey at Coega Harbour has begun and will be managed by the GloBallast Programme.

Ukraine has also expanded its Port Survey activities beyond the original survey conducted in Autumn 2001, in awareness of the seasonal variation of the flora and fauna in the Black Sea. This second survey was conducted in summer 2002. After the satisfactory completion of the surveys in Odessa, Ukraine plans a further baseline survey in the spring/summer of 2003 in the Danube delta area, seeking cooperative arrangements with the GEF project on the Danube River. The second Port Baseline Survey for the summer period (warm water season) was undertaken by the Odessa DS, the Odessa Branch of the Institute of Biology of the Southern Seas (OBIBSS), and the Ukrainian Marine Environment Centre (UMESC) as in-kind support to the project.

Some of the countries have recognised that the timing of the Risk Assessment activities is inappropriate in relation to the Port Baseline Surveys. A port marine species survey should have been commenced as early as possible after programme inception, since the results of this baseline survey will provide very important and valuable inputs to the Risk Assessment. However, the original 3-year time frame of the Programme meant that there was little choice but to start the risk assessment before all data analysis and reporting from the port surveys was completed.

In view of the variety of concerns expressed (curtailed methodologies, need for more training, lack of sufficient preparation, restrictive timeframes, inadequate funding, lack of a post-survey component, etc), many of them by the consultants themselves, there seems to be a fairly strong case for reviewing what has been done to date regarding both Risk Assessment and Port Baseline Survey, and for coming up with 1. A 'gap-filling' strategy, and 2. National programmes for long-term monitoring and data collection related to these two activities. It is intended that the international workshop scheduled for Brazil in April 2003 will discuss the post-survey component with respect to continued monitoring and

evaluation procedures. This may also be the appropriate forum in which to discuss the other concerns identified above.

Funding for long-term survey programmes is considered to be critical to the control and management of invasive species. The project document suggests that the country develop a mechanism for repeat monitoring but there is no realistic funding or guidance identified yet for such follow-on activities. Again, it is hoped that this can be raised as an issue and long-term monitoring can be discussed in the international 'wrap-up' workshop for this activity in April 2003 in an attempt to impress on the countries their role in the sustainability of this process. The achievement of such sustainability is critical. Clearly this is the responsibility of the country but it will need every support and assistance from the PCU and from other relevant stakeholders. The countries also realise that they will need advice on the taxonomy and other pertinent scientific aspects of any invasive species as, by their very nature, such species will probably not be familiar to local or even regional experts. In Iran, the Lead Agency has included long-term biological monitoring of the major national ports on its agenda, and is negotiating with the teams and the authorities involved in the initial port survey in order to develop a strategy for a long-term monitoring programme.

One problem that several countries have highlighted is the lack of knowledge about their environmental situation (habitats, species, current status of coastal areas) within the vicinity of their ports, and indeed throughout the entire coastline. There is plenty of good information in environmental state agencies on meteorology, currents and tides but this is all mostly offshore and not in the harbours. Therefore there really is no good baseline information on the potential risks from ballast water carried from the country, as they do not know what species are present in the first place. This makes it difficult to undertake a risk analysis also. Countries feel that the whole process needs to be expanded to develop an overall national vulnerability/sensitivity index map. Iran is developing and implementing activities in this as part of its national effort. However, the importance of such activities should be recognised and addressed in other countries.

The PCU recognises the concern about needing more baseline data on actual native species distribution and habitats but this would be too enormous an undertaking for inclusion in this project. The CRIMP methodology is, in the PCU's opinion, quite comprehensive and very effective at identifying new species. What the project hopes to do is to highlight the gaps and the need for these studies to complement the project's objectives, and hopefully to encourage the countries to pursue their own programmes of research and data collection. The project is now aiming to hold the Brazil workshops on Global Port Survey in March 2003.

Brazil has noted that they would have preferred to have two demonstration ports and not one. Brazil has an 8,500 km coastline running mainly north to south, and therefore has very different environmental conditions ranging from tropical/equatorial to subtropical-temperate. They feel therefore that two sites would have been justifiable.

The CPTF members in a number of countries felt that there should have been closer integration and coordination between the GloBallast project and related issues and invasive species vectors such as hull-fouling and aquaculture activities. It should be noted however, that the project has been linking and coordinating initiatives relating to other vectors, including GISP, IUCN, ICES and FAO. The countries also feel that the PIP should have been more research-oriented, looking at various fields such as ballast water treatment, ballast water sampling and biological analysis of discharges in the region. Although the countries wanted more research included they were informed that GEF would not support this as it was considered to be scientific research, which does not fall under GEF's criteria for funding. However, this interpretation of the GEF criteria for funding is not strictly accurate (see discussion on this issue above under Component 3 – Risk Assessment). Despite the fact that the countries perceive that the PIP should have more research orientation, the PIP has a major focus on research, including activities 1.B.4, 3.2, 3.3, 4.4, 5.2 and 5.5.

There has been some delay over the implementation of both the Global Port Survey and the Ballast Water Sampling methodologies Workshops. The project is now aiming to hold the Workshop on

Global Port Survey in March 2003 (as per re-scheduling in the Revised Indicative Four Year Workplan of June 2002).

Component 4: Ballast Water Management Measures

Activities

1. Translate/disseminate IMO Voluntary Guidelines & ICS/INTERTANKO Model
2. Education and Training Packages
3. Legislation and Regulations
4. Global Research and Development Symposium
5. National Ballast Water Management Plans

INTERTANKO has distributed model ballast water management plans to assist ships in complying with the IMO Voluntary Guidelines. All countries have the Voluntary IMO Guidelines.

Throughout all of the demonstration countries, it seems that there has been a very good response from the shipping industry toward adopting the voluntary guidelines prepared by IMO. However, as far as the development of national ballast water management plans is concerned, there is a general feeling that this will only happen when there is a Convention in place to provide the momentum, although some countries such as South Africa and China are prepared to go ahead and adopt new legislation before the Convention, and therefore presumably, associated management plans. In Iran, the Guidelines have been translated and distributed and are partly under implementation at the major Iranian ports.

Countries have expressed varying levels of success with the reporting forms. 9 out of the 13 major ports in India are now completing and submitting ballast water reporting forms. But not all ship's masters have these forms and not all those that do are completing and returning them as there is no real legislative power to make them do so.

In South Africa, the National Port Authority (NPA) reports that there is a very good level of cooperation between Ports and the GloBallast Project and they are very supportive of what the project is trying to achieve. Ports were aware of the ballast water issues before the project started, but the project has really clarified and explained the concerns. They are finding that the ship's crews from the Masters right the way down to the deck-hands are also now aware of the issues and supportive. The South African NPA requests all ships to discharge ballast water out at sea next time they visit Saldanha. All ports in South Africa are now collecting IMO Ballast Water Reporting Forms from all vessels in-ballast. Some captains, especially the regular visitors, have the ballast water forms already completed by the time NPA staff go on board. The ships have learned to accept this requirement. Nowadays, only 1 out of about 35 vessels will not have changed their ballast water at sea (as a voluntary request) before entering Saldanha. This shows a considerable amount of compliance and concern by the ships and their owners, as the exchange process at sea is quite time-consuming and costly for them, especially if the weather is not suitable. In bad weather the ships may have to make do with just overflowing the tanks and cannot risk dropping ballast levels for safety reasons. However, the Pollution Officer for the NPA admits that he has to take the Captain's word that the tanks have been exchanged and he has no way of proving it. Port-specific ballast water management regulations have been developed by the National Ports Authority, in consultation with GloBallast staff, for the new deepwater port at Coega. These regulations are currently governing ballast water operations during the port construction phase, and will carry over to become the ongoing port ballast water regulations once the port becomes operational.

The maritime training institutes have also embraced the project in most countries. In India there is an excellent working relationship between the training institutes and the country project office. As a result, the institutes have introduced course modules on ballast water issues. All senior ship's crew

have to return to college for a period to update their requirements under STCW'95 and this now includes ballast water issues.

Train-Sea-Coast Centres already exist in Brazil and South Africa, and these are being used to develop a training package of 10 modules which would be given as a 1-week course. Brazil is developing 5 of these modules and South Africa the other 5. These modules cover a variety of ballast water issues from the ship's point-of-view including ports, problems of invasive species, etc. The structure of the course follows the draft Convention. The TSC approach is using Train-X validation to test and then disseminate this training package. The Train-X approach is material-dependent and not specialist-dependent (i.e. the specialists may leave the institute or country but the material remains). Any TSC unit can adapt the material to suit their needs or requirements. All training will use in-country experts not outside international experts. The PCU reviewed the Train-X approach in detail and found it to be very valuable in developing concepts from the grassroots to produce a specific and applicable training package. It also has the benefit of encouraging country ownership as the training courses are developed 'in-country' using national experts at national institutes

These training modules would be delivered as lectures/programmes at the demonstration ports first, then at other ports within the demonstration countries, and then transferred to other countries in the region, although how this transfer would be done was not clear. It is probable that the most effective way would be to 'train-the-trainers' by bringing them into the demonstration country institute responsible for the training. Dissemination of training within the demo countries would be through a formal training institute. This transfer of training modules and experience could be done through regional replication, the Train-X network and IW:LEARN.

South Africa has been experiencing some problems in delivering the training packages which were allocated to that country (5 of the 10 modules) and this has caused delays in these project activities. It is likely that Brazil will take on the additional responsibility of these other 5 modules.

However, some of the country stakeholders feel that they are not ready for training yet as they do not have a Convention on which to base such training. It would seem to them to be premature to start training seafarers in ballast water management when the management measures have not yet been defined. They wonder if the existing IMO voluntary guidelines will bear enough resemblance to the requirements of the final Convention. Following the 2nd GPTF, the focus has altered toward training of land-based personnel (Navy, Port, instructors in seafarer training centres, environment agencies, health agencies). This supports the focus of the Guidelines, but not necessarily that of the Convention as it is expected to be drafted.

One important aspect of training, which may have been overlooked, is the need for more basic instruction in environmental issues as well as though more directly related to ballast water discharges within the ports. In Brazil, port staff are generally trained in operations and maintenance and have no environmental background. There are attempts now to try and introduce a programme of environmental education within the ports in Brazil. Furthermore, in order to encourage a more integrated understanding of the issues, Brazil is developing a national programme on environmental capacity-building within the ports. This is a joint initiative from the Brazilian Navy, Ministry of Environment and the Ministry of Transport promoting a one-week course developed under the Train-X methodology by the Train-Sea-Coast unit in Brazil. A local initiative is coordinating Port staff with Environment State Agency staff so as to help them understand each other's roles and needs. Environment State Agency staff will visit the ports to see and understand the issues, and Port staff would visit the Environment Departments.

In India, the Voluntary Guidelines have been included in the course curriculum for maritime education. Effective training activities for port officials will be initiated after the final regulations on ballast water management measures are in place. India feels that it is in a position to take a lead role in training for ballast water management within its region. It could come up with location-specific protocols for ballast water management for all of its ports as well as ports throughout the entire

region. Furthermore, they feel that they could develop more appropriate location or case specific training techniques than those being offered by Train-X.

An International Lead Legal Consultant was hired to assist and direct the project's national legal review process. The contracting of this Consultant and the contracting of most of the locally based Legal Consultants was very time-consuming and seems to further reflect the delays caused by the administrative complexities and inherent bureaucracy of the Executing Agency as discussed under Component 1. Again, it should be noted that this is not seen as an adverse reflection on the PCU. The staff of the PCU have struggled with the problem of long delays in administrative procedures throughout the project, a constraint which has absorbed much of their time which could otherwise have been spent more fruitfully and directly engaged in project activities.

In each country, a locally-engaged national legal consultant (working with an international legal advisor) has reviewed the in-country legislation and developed recommendations. These recommendations have been presented at a workshop held at the World Maritime University in Malmö. Any further progress is constrained by the formal adoption of the Convention (although some countries may adopt the legislation and policy unilaterally). The legal review has not, in most cases, been shared with all stakeholders in each country as it is still considered to be in its formative stages. It is hoped that all stakeholders will be allowed to review it and make comments once the Convention is agreed and the countries can be sure of the legislative need and requirements

The locally based Consultants worked hard to meet the challenges of a restrictive timeline and delays in contracting. All of the Local Consultants responded very positively to the requirements of this activity and worked well beyond their mandate. This should be seen also in the context of often having to work in a second language.

The International Consultant felt that the Legislative Review could have benefited from the Consultant having travelled to meet with the national consultants, either within each country or (probably more efficiently) at a briefing workshop. In the final analysis, the International Consultant undertook no 'in-country' work at all and only met with the national consultants in the final presentation workshop in Malmö. Again, this activity has to fall within both the time and financial constraints placed on the project by the original project document.

This project activity has delivered a concrete and valuable product and has built some useful capacity within the countries. However, there have been concerns as to whether this capacity has or will now be integrated into the overall GloBallast Programme. These concerns have focussed on delays in publishing the report electronically and in hard copy. The International Legal Consultant has set up the electronic documentation specifically to allow the full text of the national reports to be accessible to other researchers on the web (as PDFs, and to facilitate web links etc.). To clarify the current situation, the full text of the national reports (as set up by the International Consultant, needs further major editing effort and is not ready for dissemination through the GloBallast website. The International Consultant was contracted a second time to summarise the national reports and to incorporate the summaries into the published report, which is now in hard copy and on the website.

In China, the project (CFP and CFP Assistant) has been participating in the recent activities to amend relevant national regulations relating to ballast water control. With a view to implementing IMO Guidelines, the Chinese Government is planning to promulgate Regulations at Ministerial level late this year. China expects that, by the end of 2003, most Chinese vessels engaged in international voyages will be equipped with their ship-specific ballast water management plan as required by Resolution A.868 (20). Chinese quarantine officials already require ballast water treatment of ships coming from the area where WHO notifies of cholera epidemic. A Chinese/English version of IMO Guidelines has been prepared and 6,400 copies have been printed. Some 5,000 copies have been disseminated free of charge to shipping industry and relevant organizations nationwide. The book is available on board all COSCO ships and will be available on board ships of China Shipping and other shipping companies of China. Currently the IMO Ballast water reporting form is collected in the 4 major ports in the Bohai Sea. The information requested in the IMO Standard Form has now been

incorporated into ships' quarantine declaration requirements. Major shipping companies in China are now developing the ship-specific Ballast Water Management Plan for their fleets.

However, it should be noted that even China (a country taking serious steps to implement the Guidelines through adoption of appropriate legislation) has expressed strong concern regarding any further delays to the Convention. They fear that any such delays could cause some re-analysis and debate over the approval of national legislation, and the appropriateness of adopting the Guidelines in view of considerable remaining discussion and debate over the final format of the Convention and its national requirements and commitments.

In Ukraine, national legislation requires all ships entering Ukrainian ports to make an obligatory exchange of ballast water. This is a 'blanket' requirement for all shipping, and the information on ballast water has been minimal. However, in order to conduct the risk assessment, by the Order of the State Department of Maritime and Inland Water Transport, ships are required to provide information on where the original ballast water was taken, using the IMO Ballast Water Reporting Form. Procedures for collection and processing of ballast water information from ships entering ports in Ukraine have been developed and entered into force by Order of the State Department of Maritime and Inland Water Transport. This makes it obligatory for Harbour Masters in Ukrainian ports to submit yearly ballast water reports to the Shipping Safety Inspectorate. Ukraine has also developed proposals on the organisation of ballast water monitoring in ports and included these into the National Programme on improvement of State Shipping Safety.

South Africa has held a National Ballast Water Policy Development Workshop at Saldanha Bay, which involved representation from all major national stakeholders. A draft Document is currently in circulation with national stakeholders for comments.

Each country has a different process for dealing with maritime affairs, and different agencies responsible for different aspects. In most cases these are poorly coordinated and integrated. For example, In Brazil, if there is a pollution incident at a port terminal then it is an Environment Agency matter, but if it is an illegal discharge from a ship it becomes a Navy matter as they enforce IMO regulations and impose penalties. If a new ballast water Convention is adopted then it would probably be the Brazilian Navy that would have the main responsibility for compliance and enforcement, but in close coordination with the Ministry of Health's National Agency for Health Inspection (ANVISA), Ministry of Environment (MMA), and its Federal and State agencies. ANVISA enacted a National Resolution in 2002 that established the mandatory presentation of ballast water reporting forms (as defined in IMO Resolution A.868-20). This is now a requirement for all ships requesting 'Free-Pratique'.

The legal component of the project was not initially engaged in dialogue with the IMO Convention development process, although clearly the substantial research and ideas undertaken and developed in-country could have helped their deliberations. This was rectified through connections developed between the International Lead Consultant and the drafting team, another example of proactive and adaptive modification of a project activity in response to altered circumstances or unidentified challenges. . The Convention drafting team did actually request that one of their members be permitted to attend the Workshop in Malmo, and for an overview of the legal review to be presented to the Convention drafting process for their information and to positively influence negotiations. One concern here is the perception that the local consultants and the legal and institutional developments and capacity were not coordinated with the other activities of the Programme. There is no apparent linkage between the Component on Compliance, Enforcement and Monitoring (CME) and the activities associated with the legal review, or the personnel involved in the legal review, which would seem inconsistent with the need to integrate and coordinate the activities within the components and between the components. However, it is further noted that the local legal consultants worked in close cooperation and under the supervision of the CFPs and, through them, should have had access to all the activities of the Programme. Some of the highly specialised and scientific content of certain activities (particularly aspects related to port surveys and risk assessment) may prove difficult to explain and/or translate into non-scientific language. Nevertheless, the PCU has endeavoured to assist

the legal consultants in this situation by providing additional material and specific explanations on the more specialised scientific activities.

The legal review identified a problem with the CME aspects of the project in relation to the legislative aspects. This problem is the inherent differences that would exist between any enforcement and compliance activities put into place before the enactment of either domestic regulations (e.g. adoption of IMO Guidelines), or before a Convention (with the adoption of specific domestic laws to implement it). The Convention is premised on the approach of Inspection and Certification, while the Guidelines target filing, reporting and port-based decision-making. Although there may be overlaps, the emphasis in enforcement and compliance activities would differ between the two regimes. This has obvious implications both diplomatically and politically when considering the position of those countries that might move ahead at an earlier stage to introduce legislation (with associated CME) in support of the IMO Guidelines in contrast to those countries which wait for the Convention to be agreed and adopted.

The same differences defined above between adoption of the Guidelines versus adoption of the Convention (Port-based assessment and decision making versus Inspection and Certification) also have a direct bearing on the training components of the project in that the different legislation and supportive CME would require different training requirements at the specific level (although generic education of all seafarers would still apply).

This was discussed with the PCU which takes the view that the provisions of the guidelines are generic in nature and would apply in any scenario for ballast water management and control, as they are based on common sense practice on board ships and in port. This opinion is not shared by the Legal Consultant, or by the CFPs. This issue was raised again by one country at the 4th GPTF with considerable strength of concern. The PCU does share the view that special consideration should be given to the compliance, monitoring and evaluation activities, and how these would be affected by pre- or post- convention or domestic legislation enactment.

The legislative review has identified some main differences between the Guidelines and the evolving Convention, a concern shared by several pilot country representatives and the NGOs. The draft Convention is obviously different in its approach from the Guidelines, which are premised largely on risk based assessments by the port state, and this concern has been noted through the legal review process. For example, the Guidelines are premised on the reporting form. According to the Legal Consultant, the Convention does not have a reporting requirement or form. According to the PCU it does have such requirements and the PCU notes that the IMO Ballast Water Reporting Form has now been incorporated into the Ballast Water Management Record Book.

Some concern has been registered regarding the need to ensure that the development of policy and regulations at the national level is now kept in close synchrony and harmony with the requirements of the Convention. The shipping industry acknowledges the fact that there will need to be some flexibility within the Convention to allow for a certain amount of national legislative variations and different port situations, Their concern is to avoid the development of too many local variations on implementation approaches which could then translate into a variety of legal requirements for the industry depending upon which Port State they are dealing with.

Most countries are waiting on the outcome of discussions defining the text of the Convention before adopting a port-specific and national Ballast Water Management Plan. No templates have been provided to assist in this process as yet. Some countries have not yet developed ballast water discharge guidelines or shipboard management plans as they feel that it is necessary to have the outcome from a number of various project activities before such guidelines and plans can be developed. South Africa, which is moving ahead regardless of the Convention, is waiting for its policy document to be approved before developing port-specific regulations and a ballast water management plan. They then intend to adapt these regulations to other ports in South Africa.

In China, It is expected that by the end of 2003, most ships engaged in international voyages will be equipped with their ship-specific ballast water management plan as required by Resolution A.868 (20).

On the other hand, as far as the development of national ballast water management plans is concerned, the large shipping companies are supportive of the idea, but the process needs momentum and to be pushed ahead. This will only happen when there is an adopted Convention, and resultant national legislation upon which to base such a management plan.

Clearly, this need for harmony in the strategic development of national policy and legislation, and the need to work closely with the shipping industry to maintain and improve momentum on national ballast water management plans, represents a major functional and supportive role of the project. There is no doubt that the project is taking such responsibilities very seriously and is playing a high-profile and active role in coordinating these important and critical cooperative national and international efforts.

The range of present activities within various countries addressing policy and regulations for ballast water management is an indication of the very real concern that those countries feel regarding ballast water issues. This, in turn, is a reflection of the very effective public awareness and sensitisation activities of the GloBallast project. The countries themselves have adopted a selective approach with regard to ballast water management, agreeing to postpone the implementation of the Compliance, Monitoring and Enforcement measures until the text of the Convention is in its final and agreed form. This inevitably places unexpected pressures on the GloBallast project as far as delivery of its objectives is concerned and, once again, the project will need to act dynamically and proactively to encompass this requirement. Far from being a criticism of the project, this should be seen as an example of how projects of this nature, which are dealing with evolving international treaties and regulations, need to be able to respond in a dynamic and effective manner throughout the development process, and in the interests of all stakeholders.

A review of the status of ship-board and port-specific ballast water plans would be a valuable exercise at this stage to identify A. what has been achieved by each country, B. what each country plans to do prior to and after adoption of the Convention.

There is still no clear solution to the ballast water problem that can be embraced by the Convention. Consequently, the industry remains uncertain as to what type of management plans should be developed for either ships or the ports. The R & D component is therefore very critical to the long-term success of the project objectives and to the adoption of the Convention.

A Research and Development Symposium was held in London (March 2001), which countries felt had an impressive turn-out. It was followed by a workshop to discuss what had been learned from the Symposium and to try and define some ballast water management standards. The recommendations from the workshop went to the MEPC meeting. However, some countries felt that the symposium produced a lot of scientific papers but no real agreement on the way forward with regard to which methods should be developed for handling and/or treating ballast water. The 1st international Ballast Water Conference was held in Singapore and, again, there was the same discussion on technological development but no real consensus on what need to be developed. Both the R&D Symposium and the Singapore Conference did, however, help to define the technologies being researched, and where the various research projects are based; the fact that significant further research is required and that it is likely to be some years before a new ballast water treatment system is developed and acceptable for operational use; that the current R&D budget is insignificant compared to the potential cost of marine introductions; there is a desperate need to develop and implement international standards and procedures for evaluation and approval of new treatment systems. In the meantime, it is apparent that the GloBallast project is fulfilling an important coordinating function in collating and disseminating existing state-of-the-art with respect to R&D, and in attempting to guide the Convention development process on the basis of any recent developments.

Countries are also concerned about the transfer of lessons and replication of best practices within their other major ports national (outside of the demonstration port). There is no real mechanism defined within the Project to undertake this national replication process, although the actual process itself could help to develop a good model for use in other countries. It may be seen as implicit within Activity 4.5 (National Ballast Water Management Plan), but there is no requirement to develop a mechanism to do this. However, it is an admirable reflection of the proactive nature of this project (as well as the commitment from the countries) that, in many cases such national replication is moving ahead in a timely and successful fashion,

South Africa is undertaking this replication to other national ports as a national priority. The South African National Port Authority has committed its own funds to undertaking baseline surveys of other ports besides Saldanha using the GloBallast methodology. The next step is a workshop to develop port-specific regulations and a ballast water management plan. This would happen after the Policy development stage. The NPA can then adapt these regulations to other ports in South Africa. Everything that the GloBallast project has done for Saldanah is being replicated by NPA in its other ports, including the Risk Assessment. Financially, NPA would need an on-going revenue to cover data systems, staffing, etc. NPA has already revised their budgets to incorporate some ballast water management requirements.

India is also attempting to replicate its demo port practices to other ports, and is extending the collection of ballast water reports to all of its 13 major ports (7 of which are already providing this information as a standard procedure).

Iran, too, has extended the requirement for the collection of ballast water reporting forms beyond Kharg Island and has been collecting from other national ports since the commencement of the project. Iran would like to see more of the project funds being allocated to research and development directly related to ballast water issues.

Component 5: Compliance, Monitoring and Enforcement

Activities

1. Develop a generic CME System
2. Ballast Water Sampling equipment
3. In-country CME Personnel and Training
4. Adapt and implement CME Systems in each country
5. International Ballast Water Sampling Workshop

The original project Document and Workplan was accepted on the basis that the new international Convention would have been adopted before or during the project inception process, and participating countries could commence CME activities based on the provisions of the envisaged Convention. In the event, drafting the new Convention has proved to be far more complex and drawn-out than was expected. Some countries have found it difficult to enforce the existing IMO Ballast Water Guidelines (A868 (20)) prior to the adoption of a new Convention (due to their voluntary nature). Some have simply chosen not to in view of the long-term implications relating to potential differences between the Guidelines and the Convention. However, it was agreed that it would be useful to initiate, at an early stage, the development of a set of measures to ensure CME of country/port specific ballast water management arrangements. The initial measures could then be assembled in a CME system, which will help to determine the extent of compliance with both the new Convention and country specific ballast water management requirements. Due to the importance of this component and its association with the rest of the activities of the GloBallast programme a 'Scoping Study' was commissioned to provide advice on what constitutes a CME system, the key steps to design it and details on how this may be achieved. The consultant recruited to develop the study circulated a questionnaire on issues related to CME in 2001. Based on the outcome of the questionnaire and on best practices identified in other jurisdictions, the Scoping Study was finalized in the second half of 2001 and circulated to all

involved during the 3rd GPTF. A detail briefing paper on this subject has been presented by PCU under agenda item 9 of that meeting. At the 3rd GPTF meeting it was agreed that the progress of the new Convention and the CME component are directly linked so the CME activities may need to be re-scheduled to 2003.

So, the problem experienced within this Component is the difficulties experienced by the countries in making the Guidelines function effectively in view of their having been purely voluntary now for a number of years. The allocation of responsibilities, accountabilities, administrative resources and management needs requires government policy and legislative changes. Countries do not want to go down this road prior to adopting a Convention for fear that the agreed Convention text may require them to make significant amendments to policy and legislation at a later stage.

Most of the countries are following the advice given by IMO not to develop and implement their own unilateral legislation regarding ballast water discharges and management. This is partly to ensure that countries don't try to pre-empt the Convention and end up putting inappropriate legislation in place, and partly to protect the countries from losing revenues from shipping as a result of vessels and owners using other ports in nearby countries. However, it should be noted that at least one country has estimated that it may take as much as 5 years for the necessary laws and regulations to be approved by its government even after the Convention has been formally adopted (judging by previous national experiences with IMO Conventions). South Africa and China are proceeding with the development of national policy and technical regulations, as well as the development of CME strategies, in preparation for the adoption of the IMO Convention

South Africa is developing a draft ballast water policy paper for circulation to senior government policy-makers. A workshop was held to initiate the drafting of the policy document and this workshop included all stakeholders. The CPTF members were also invited to the policy-drafting workshop. This approach has the advantage of priming and preparing policy-makers for the forthcoming Convention and developing an enabling environment for discussion of important issues such as which agencies or bodies will be responsible for monitoring and enforcement. The CFP has conducted a review of existing CME systems and has presented a summary of these at the National Ballast Water Policy Development Workshop. The participants went on to review details of potential systems which could be applied within the South African context.

China is also taking steps to adopt the necessary legislation to enforce the IMO voluntary guidelines. The Liaoning Maritime Safety Administration will be responsible for CME, for conducting ballast water sampling, and for maintaining the sampling equipment. China has identified the suitable people for training in CME. However, the comments included under Component 4 (above) regarding China's reaction to further delays in the Convention are cause for concern. Ballast water records have been included in the FSC and PSC inspections in some ports. Further activities will be carried out after the sampling equipment is made available and the relevant training has been completed.

Other countries have introduced elements of the IMO Guidelines (which relate to CME) to varying degrees. These include Ship-Shore communications and reporting procedures, surveillance and inspection systems, record-keeping and establishment of a database, and the countrywide application of these same reporting and record-keeping systems. In Iran, for example, the Port State Control monitors the ballast water record books of ships calling on major Iranian ports, although no mandatory regulations are enforced as yet.

Brazil has made it clear that, as they do not intend to undertake unilateral measures, the findings and recommendations of the legislative review will only be considered and/or implemented after the adoption of a Ballast Water Convention.

India has stated that this component will only be initiated after the risk assessment activity is completed and guidelines are available for effective monitoring by port officials.

None of the countries have yet received any sampling equipment as defined under this component. This equipment would be for Port Officers or designated compliance officials to use for compliance

and enforcement purposes. This would be premature at present, as the CME component is delayed by the on-going negotiations over the Convention. Consequently, sampling methods for the demonstration countries are not standardised as yet. For the same reasons, the countries have not yet designated CME officers or a lead CME agency. Although there have been no CME training workshops so far, the PCU is proposing that a team from each country meet for an International Workshop sometime in April 2003.

In many of the countries, there are very obvious overlaps in responsibilities for enforcement of laws relating to maritime issues. Such overlaps are a major problem to effective environmental legislation. In Brazil, for example, it is quite possible that issues of responsibility and accountability for environmental legislation will represent the greatest hurdle to the development and implementation of effective ballast water management

In short, this project component has experienced significant delays as a result of the delays in finalising the draft Convention, and the understandable reluctance of countries to translate the IMO Guidelines into policy and standard practice through regulations prior to finalising the Convention. Most countries do not want to proceed any further with the development of new rules and regulations for ballast water management based on the existing IMO guidelines as they feel that the draft Convention could look very different. There are too many costs and political decisions involved which might have to be revised or overturned once a draft Convention is agreed.

However, on the positive side, this has allowed the project and the demonstration countries to be more proactive in assisting in the development of the Convention based on practical experience. Some real examples of where GloBallast has provided experience and input to the draft Convention include:

- Convening the 1st International Ballast Water Treatment Standards Workshop which was instrumental in catalysing the development of global ballast water treatment standards, (the need for which was a major obstacle to concluding the Convention).
- Providing the global ballast water treatment R&D Directory as a significant resource to supporting discussions of ballast water treatment options in the context of the draft Convention.
- Developing standardised methods for risk assessment, port biological surveys and ballast water sampling which are under consideration for use in the Convention.
- Stimulating a significant increase in the participation of developing countries in Convention negotiations.
- The active participation of PCU staff as technical advisors to the IMO Ballast Water Working Group.

Countries are now keen to see a clear purpose and agenda for the proposed workshop in Brazil, which will look at defining best techniques and approaches to sampling. The development of international standards will also be on the agenda of this workshop. Logically, many of the CME components will be the last steps in the national activities but the countries expect to get the component finished before the end of the project. This now needs more serious consideration in light of the national and international concerns regarding the final format of the Convention, and how this will affect or delay CME activities within the project.

Component 6: Regional Replication

Activities

1. Form Regional Project Task Forces
2. RPTF Meetings and Study Tours

Various levels of success have been achieved within the six regions covered by GloBallast with respect to the regional replication of national GloBallast activities and the establishment of a Regional

Task Force. Again, different countries are at different stages of progress with this component, and have different perspectives of what is intended. The project has recognised that this component is a higher priority for those countries that (for economic, geographic, oceanographic, and/or ecological reasons) are more vulnerable to the introduction and spread of harmful organisms and pathogens. As a consequence (and in consideration of the fact that the regional cooperative networks are already in existence and functional) it was decided to launch the GloBallast regional initiatives within the ROPME Sea Area (Khark Island Demonstration Site – Iran), and the Black Sea (Odessa Demonstration Site – Ukraine). Some of the other countries have encountered constraints in meeting the objectives of this component which are partly a reflection of delays in the draft Convention, coupled with the absence of sufficient resources and capacity needed to move GloBallast from the national demonstration stage to the regional replication stage

As host to one of the regional initiative launch sites, Iran had its 1st Regional Conference on Ballast Water Management in the ROPME Sea Area, 17th-19th June 2002. This Conference was organised by the Government of Iran and the PCU, with the support of the ROPME Secretariat. Representatives from all but one of the countries bordering the ROPME Sea Area attended this Conference, along with observers from regional government and non-government agencies. The Conference objectives were to:

- Enhance regional awareness and cooperation in the field of ballast water management and control;
- Consider and endorse a draft Regional Action Plan;
- Agree on the machinery for implementation of the RAP including an appropriate coordination mechanism.

National presentations were given by each country from the ROPME region. The Conference endorsed a Regional Action Plan (RAP) to address ballast water management and related issues. The principal objectives of the RAP are to:

- Provide a framework for specific regional activities under the GloBallast Programme;
- Facilitate the preparatory process in the region for the introduction of the new IMO Convention;
- Enhance regional cooperation utilising the existing bodies established under ROPME.

In the Conference resolution, the participants agreed to work towards formation of a Regional Project Task Force for implementation of the RAP. Formal adoption of the RAP is expected to take place through a high-level diplomatic conference sometime in early 2003. The representatives from each of the countries who attended are responsible for the transfer of information to their relevant authorities and related stakeholders. Iran is in regular communication in this regard with other countries and stakeholders in the region. Iran is undertaking the distribution of awareness materials developed by the PCU and its own Iranian GloBallast team (in Persian and Arabic) both within the country and to other countries in the region. This includes the development and implementation of a national GloBallast website, and the presentation of various seminars on GloBallast in the country and in the region. Prior to the Regional Conference mentioned above, representatives of the national GloBallast team travelled to all the countries in the region and, along with an IMO consultant, presented the GloBallast project in detail and initiated support for the programme. The Lead Agency has published articles in the national newspapers and initiated telecasts on national TV giving interviews and providing news of various activities like the Port Baseline Survey as well as the Regional Conference.

Ukraine is hosting the other regional initiative launch site. The Lead Agency in Ukraine has sent out letters (June 2001) to the maritime administrations of another five countries in its region (Bulgaria, Georgia, Romania, Russian Federation and Turkey) providing them with information on GloBallast, along with requests for cooperation. In a cooperative effort between the Odessa Demonstration Site and the PCU, a first version of a Regional Action Plan to minimize the transfer of unwanted marine species and pathogens in ship's ballast water, and the draft of a resolution, to bring the plan into force,

were developed. In Summer 2001, the PCU commissioned a consultant to visit these countries to discuss the GloBallast project, the possibilities for regional cooperation, and the draft resolution and Regional Action Plan (RAP). All countries unanimously supported the idea for regional cooperation. As a result of an enormous amount of preparatory work (involving IMO-responsible persons, all PCU staff, dozens of enthusiasts from Odessa demonstration port, and Shipping Safety Inspectorate of Ukraine) the 1st Black Sea Conference on Ballast Water Management and Control was held in Odessa from 10th-12th October 2001. The conference was attended by more than 50 officials from all the countries of the region representing different interested organizations, the shipping industry, the scientific sector, and mass media. Amongst others, the RAP provides for the establishment of a National Information Centre (NIC) within the framework of the GloBallast Programme. Once the NIC becomes operational, it will provide information to the Istanbul Commission through its Advisory Group on the Environmental Safety Aspects of Shipping (ESAS) on possible sources of unwanted species, measures for prevention and control undertaken and planned in the region, as well as the worldwide experience and trend in this matter. This Centre could also deal with regional training regarding ballast water issues, and could assist in establishing national training centres and facilities. It is now important for Ukraine and the PCU to progress implementation of the RAP through the Black Sea Environment Programme and the Istanbul Commission.

Brazil has already presented its planned approach to regional coordination and replication at the 3rd GPTF in Goa. They intend to host a small workshop of regional representatives from just 6 South American partners (Argentina, Chile Colombia, French Guyana, Peru and Uruguay) to discuss ballast water issues. Some arrangements have already been made through the Ministry of Foreign Affairs to define diplomatic issues regarding the organisation of such a regional meeting in Brazil. There is not intention to visit other countries in the region prior to this meeting, or as part of a regional awareness-raising exercise. Brazil is cooperating with its neighbours where appropriate (e.g. coordinating a project on the Golden Mussel). Brazil is also hosting its 2nd Seminar on Ballast Water in November (the 1st was in November 2000) and will invite neighbouring countries to attend.

China has taken first steps toward regional cooperation in ballast water management and control by organising a regional cooperation meeting, which will be convened in conjunction with the 4th GPTF Meeting to be held in October 2002. Indonesia, Japan, Philippines, Republic of Korea, Singapore and Vietnam have been invited to participate in the meeting.

India has established a Regional Task Force, having made contact with selected representatives in neighbouring countries. The CFP has talked individually with each designated RPTF Focal Point and forwarded all the relevant materials from the project. The first RPTF is planned for June 2003. Prior to that meeting, the CFP will visit each country to brief the Focal Points. Again, other countries have been less successful citing limited human resources and funding as potential problems. India is relatively well advanced in its intentions to transfer information and concepts to other countries in the region.

South Africa is still in the early stages of developing a strategy for regional coordination, and for creation of a Regional Project Task Force. They are about to become members of 2 marine and coastal management conventions for sub-Saharan Africa (similar to Regional Seas Programmes). They are trying to decide which countries would actually be representative of their region in relation to GloBallast. It has been decided by the programme that, while assistance will be given to any African country that request it, focus will be made on those countries with which strong agreements and affiliations already exist. They feel that developing regional coordination and working relationships with Angola and Namibia on the west coast and the Nairobi Convention Countries on the east coast would be the most logical regional extension for GloBallast. This would amount to a total of 12 countries. The South Africa Project Office has given lots of successful presentations at regional meetings and fora to raise awareness on the ballast water issue. They hope to have the first RPTF meeting next year. They have not yet identified all of the country representatives for such a meeting as yet. One concern here is how they can ensure that the most appropriate people are sent by the countries, i.e. people who can make a real contribution to the process. They feel that subtle diplomatic input and advice from IMO may assist in ensuring that the countries send the right

attendees. The CFP and CFP Assistant have already visited a number of target countries in their region to give presentations on the ballast water programme. Planning has also been initiated for a port survey to be conducted in Mombasa, Kenya. This will be conducted in conjunction with a regional port survey training workshop.

Further to the pilot country activities carried out under this component, the transfer of experience and lessons has extended beyond the pilot regions, with the PCU organising the first Baltic Regional Workshop on Ballast Water Management (October 2001) in joint cooperation with the Estonian Government. Since this workshop, the PCU has assisted the region to secure funding of \$36,000 from the US State Department to initiate aquatic species surveys and monitoring within the northeast Baltic region. Furthermore, these actions have helped to place ballast water issues firmly onto the agenda of the Helsinki Commission and the GEF Baltic Sea Regional Project, and efforts continue to secure further funding and resources for regional ballast water management and control activities.

The PCU has continued to develop and sustain cooperative links with various other bodies, including the Caspian Environment Programme (CEP), the Helsinki Commission (HELCOM), the South Pacific Regional Environment Programme (SPREP), the Asia-Pacific Economic Cooperation (APEC), the Regional Cooperation among the Maritime Authorities of South America (ROCRAM), and the Mediterranean Action Plan (MAP).

The proceedings of both the Black Sea Conference and the Baltic Regional Workshop have been published as part of the GloBallast Monograph Series.

The PCU is actively coordinating all of these regional activities. The 2nd International Waters Conference held in September 2002 in Dalian provided an excellent opportunity to share experiences and to promote regional cooperation. This Conference was attended by the CFPs from China and Iran, and by the Chief Technical Advisor from the PCU. This also provided a valuable opportunity for awareness-raising. The GloBallast project, through the Chinese Maritime Safety Administration, was presented to the Conference delegates through a dedicated stand and exhibition. During the Conference, the PCU held discussions with representatives of the HELCOM as well as the Black Sea Commission. GloBallast also invited new regions that are currently developing strategies for integrated coastal area management and for management of large marine ecosystems to include ballast water as a topic in their regional policies and to take advantage of the programme's 'ready-made' tools to address the transfer of marine invasive species.

Clearly, significant steps have been taken through the GloBallast Programme to promote and support regional replication of project activities. Efforts in two priority geographical areas (with Iran and Ukraine as their demonstration sites) have produced remarkable results in a very short period. Ideally, these results and their related lessons should now be transferred to other regions while maintaining the momentum in the two priority areas.

However, it seems clear that the regional replication component is a large-scale and complex undertaking. To attempt to do this constructively within a 3-year timeframe was realistically far too optimistic. The implementation of Component 6 requires the demonstration port and country to have advanced considerably with their own management plans, legislation and CME processes. This was never realistically feasible or practical within such a short time period. Having said that, a number of countries have taken very considerable steps towards developing the necessary regional alliances, creating Regional Action Plans, adopting training strategies, etc. nevertheless, the key deliveries of the demonstration ports through this project (i.e. best practices and lessons learned and transferred) have not been realised as yet. In reality, fulfilling the objectives of this component will require more than the remaining 15 months left to GloBallast. It would be unrealistic to expect significant further progress to be made until the Convention has been drafted. Consequently, the project should now give serious thought to completing the activities of this Component under a second phase. This would provide further leverage to the investments made so far, while recognising the significant successes achieved already in regional replication, and ensuring that the lessons are captured and transferred.

Component 7: Resources and Financing

Activities

1. National Resources and Financing
2. Donor Conference

There have been no real attempts within the countries to review the opportunities for self-financing of the programme components and future ballast water management arrangements. Although there seems to be a general acceptance of the ‘user-pays’ and ‘polluter-pays’ philosophy (within reason, as far as the shipping industry is concerned), there has been no identification of mechanisms for financing ballast water control or management. There is a general assumption that port fees will be raised to cover this, or that management and control will be a ship-board activity covered by the ship-owners. Having said this, all current national activities that are being carried out in relation to the collection of data on ballast water, boarding and checking ships (where this is done), overseeing compliance with discharge requirements, etc are being covered by staffing and revenues at the national level.

Iran feels that consideration will probably be given to a levy on shipping within the Islamic Republic ports, linked to the legislation and regulations adopted by the ROPME Sea Area RAP. Such an approach has been applied successfully in some jurisdictions already.

The countries have expressed a need for guidance in this area and would wish to see a review undertaken of existing mechanisms used in other parts of the world for the CME of similar IMO conventions.

India has made efforts to impress upon the Chairmen of all the major ports the need to allocate funds and resources in their budgets in the long-term to replicate activities carried out in the pilot port. However, so far the response has been poor. India now intends to initiate a dialogue with industry associations including the Confederation of Indian Industries and the Indian National Ship-Owners Association in the hopes of addressing this issue. India noted that their workplan had provided for a national donor conference but that the funding was removed/reallocated by the PCU. India had been planning to gather all relevant industries (shipping, refineries, etc) together in a stakeholder workshop as a donor conference. India will now see if it can do this by itself using national funding (possibly with support from stakeholders).

In South Africa, the National Port Authority has committed substantial funds to efforts to replicate GloBallast port related activities. Funds are being given directly to the programme to support a baseline survey at the developing deepwater port at Coega in late 2002. Furthermore, funds have been approved for a port survey at Richard’s Bay for later in 2003. NPA has also incorporated allocations into its annual budgets for risk assessment activities for all five major national ports.

The original Project Document identifies an activity ‘to 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’. According to the text of the Project Implementation Plan, ‘A donor conference is scheduled towards the completion of the programme to establish the benchmarks and medium and long term strategies regarding Ballast Water Management and Control’. It would seem, therefore, that the original intention of this activity was to agree on medium and long term strategies for ballast water management, and to assist the project and countries to identify funding to continue the objectives post-project and to support these strategies. It may now be necessary to consider revising and refining this activity with a view to identifying further requirements within the context of a Global Ballast Water Management Programme, and possible further funding to support those requirements, both from GEF (Where eligible) and from other donors and co-funders. This conference should maintain its original aim to explore cost recovery mechanisms at the national level as well as institutionalisation of the Ballast Water Programme within IMO. However, the donor conference could also focus on achievements so far within the Globallast Programme, further requirements to

support the Convention, mechanisms for transferring the lessons from the pilot phase on a regional (and ultimately global) level, etc.

Global GEF Criteria

Country commitment

Country Commitment has been variable but high. Long-term political support for the project objectives varies from country to country. In most cases it was felt that senior policy level commitment still needed strengthening, mainly through a better programme of sensitisation, and through developing mechanisms that would maintain continuity and overcome frequent changes in staff and political leadership. However, the overall opinion in all countries is that the government is aware that this important issue will not go away and that they will have to embrace it and develop a policy to deal with it. It is important that governments realise that invasive species are an all-or-nothing situation that cannot be reversed. Oil spills can be cleaned up and remedial measures taken, but once an invasive species is established it can never realistically be removed. Ballast water issues are about prevention, not cure.

It is important that the project delivers some clear conclusions from the pilot study to present a clear statement of the concerns and requirements for control and management to the policy-makers. It is also important the project does all it can to encourage permanence and continuity within the countries with regard to ballast water issues. Decision-makers are always going through flux and change from the point-of-view of their priorities as well as in regard to actual responsible personnel. Formal and sustainable positions need to be created within the correct national agencies to ensure this continuity and permanence. This is most important if there is to be continued motivation for ballast water issues and to ensure a constant pressure of awareness on the changing senior level of government.

Once the Risk Assessment exercise has been completed, it may be a good time to consolidate that into a report and present it to high-level policy-makers to clarify and define the risk and to thereby gain their attention.

On the subject of country in-kind and direct contributions, this is always a difficult area to evaluate unless the figures given in the project Document are broken down into specific and defined items of expenditure. However, there is undeniable evidence that in all countries significant contributions have been made in-kind by way of office space and support, technical input and voluntary contributions from academia and experts. Certainly it is the PCU's opinion that all countries have set outstanding examples of 'in-kind' contributions to this project.

India's record of financial commitment has been very impressive, and they are doing an excellent job in collecting ballast water information from their ports. Brazil has dedicated funding through its regular budget. South Africa has exceeded its in-kind contribution, and has taken on additional ballast water responsibilities through its National Ports Authority to support certain project objectives such as risk assessment. Ukraine had made extra staff commitments. China is replicating the pilot port procedures in 4 other main ports by Ministerial Decree. Iran has extended much of its implementation of the voluntary guidelines to the rest of its national ports.

In Brazil, Parana State University has established a laboratory facility specifically for ballast water issues, and the government has given seed money (over \$150,000) to establish a core of professionals and to provide supportive equipment for monitoring and management. The long-term intention is to make the University of Parana a Centre of Excellence for ballast water monitoring. There is a realisation in the country that they need to become self-sustainable over ballast water issues. MoE is also keen to provide some financial support to IEAPM on ballast water issues under a broad agreement with the Navy. The Brazilian Navy is expecting IEAPM to take on a specialised role for monitoring water quality. Brazil has also contributed to the project through its input to Train-Sea-Coast, through development of the 'dilution' method (by Petrobras), and through its solid national support to the MEPC (As well as the in-country forums and inter-ministerial meetings, Brazil sends

10 people to MEPC for every meeting). Furthermore, there is thousands of dollars of research and development underway at IEAPM and ANVISA, which has direct links to ballast water issues. All the national experts and personnel working to support GloBallast through the Port Baseline Surveys and the Risk Assessment are effectively donating time and salaries. Brazil is also producing a book on Invasive Species and the several authors will forego copyright on this.

In China, awareness-raising seminars have been very successful. Each seminar has attracted some 60 people from a variety of relevant stakeholders. Although the National Workplan only budgeted for 6 seminars, 2 additional seminars were possible because the Chinese Government is bearing much of the cost of the participants. Copies of Ballast Water News (The Global Ballast Water Management Programme's Newsletter) have been incorporated into the pages of the national journal entitled 'Transport and Environment Protection'.

Also in China, a programme for the protection and control of the Bohai Sea marine environment was approved in October 2001 by the State Council, with a budget of US\$6 billion. This 15-year programme (3 stages of 5 years duration each) is aimed at reducing and ultimately eliminating pollution of the Bohai Sea from all sources of pollution, in particular industrial and agricultural run-offs. It includes discharges from ships of oil, chemicals, garbage and ballast water. In the early stages, strict enforcement of the MARPOL requirements will be applied and as the reception facilities to receive wastes from ships become available, zero discharges will be enforced.

The Republic of India has set an excellent example in giving direct contributions to the project, and in keeping up-to-date on the commitments agreed within the Project Document. The Government of India had committed to an in-kind and direct contribution of \$900,000. So far it has given \$300,000 in-kind with commitments agreed for a further \$300,000 in the next year. This money is going to support the input of the scientific institutes into looking at technical solutions for Ballast Water and into port baseline surveys at the other Indian ports. Also, education orientation programmes have been given to over 90 teachers, and a number of press conferences on ballast water issues have been aired on TV. This outreach has targeted millions of people across India.

Iran has contributed to baseline activities by forming a National Committee which is involved in analysing the status of invasive organisms in the waters under its jurisdiction, analysing the extent of infestation and damage caused, and planning for the eradication of these invasive species. This committee is fully funded by, and affiliated to, the President's Office. Although the Committee is currently concentrating on the Caspian Sea, they intend to extend their activities to other national water bodies as well. The government is very concerned about ballast water management in view of the invasions that have already occurred in both the Caspian Sea and the Persian Gulf. The CPTF meetings have discussed the possibilities of securing funding from the private sector. There have been some contributions and assistance already under GloBallast and in other marine environmental programmes. They feel optimistic that the shipping and oil industry will continue to be sympathetic to supporting ballast water issues.

South Africa has taken the decision to draft and circulate a Policy document for approval so that there is clear understanding and formal commitment to ballast water issues and concerns at the national policy level. There has only been a limited effort to 'sell' the project or its concepts to the higher levels of decision-making within the government. Drafting a policy document for approval at the decision-making level should help to resolve the lack of targeted awareness. The Country Project Office In South Africa genuinely believes that there will be strong support at an inter-ministerial level once the Policy document is circulated.

In nearly every country, the shipping industry has demonstrated real support to the project and its objectives. This support is based on both a moral duty to respond to the problem as well as the recognition that there will be an international legal imperative with which they will have to comply.

There is a growing concern that the project has put a lot of effort and resources into raising awareness (very successfully) but that the project is now losing momentum because of the absence of the Convention. Stakeholders have been successfully targeted over the last two years and are very

familiar with the issues. The media and even the general public have been repeatedly sensitised. In most countries this awareness and sensitisation is gradually finding its way up to senior management and policy levels. The stakeholders in the countries now feel that the governments have an interest in ballast water issues that is independent of the role of the project and its lifecycle. The problem now is that so much of the programme is on hold. Following the legal reviews carried out in 2001, a number of countries were in a position to move ahead and adopt new/amended laws and regulations for ballast water management. Advice from IMO had been not to act unilaterally (a logical policy) in establishing rules and regulations, while continuing to try and promote the voluntary Guidelines. But the project has now already reached a point of high profile. Ballast water is now given the same level of importance on the agenda as other IMO issues, but there is general uncertainty and doubt now among stakeholders about what actions should be taken in the absence of any regulations.

The concern now is that ballast water will start to lose the level of priority within governments, and which the project has worked hard to achieve. On the other hand, once a Convention is ready for diplomatic discussion, the profile of ballast water issues at the higher policy level will be raised significantly. The approach being adopted by South Africa is an interesting and potentially valuable one. This country has decided to develop a Policy document on ballast water management, based on the findings of the legislative review and the probable requirements of the Convention. This document is now nearly ready for circulation to policy level government staff and will serve as an awareness and sensitising instrument as well as laying the groundwork for the Convention when it arrives.

This concern is also reflected in comments from stakeholders who have asked simple questions such as “What is the GloBallast project (and presumably the MEPC) expecting from the countries by the end of the project?” and “How will information collected from the countries through the project be used at the global level?”

With regard to the end-of-project situation, the Project Document states that *‘Upon completion of the project the above mentioned results should create adequate conditions for the successful implementation of improved IMO Guidelines and the anticipated Ballast management annex/Convention to IMO’s MARPOL Convention. The participating countries, having played an important and informed role in updating global approaches and agreements on the ballast water transfer issue, will be positioned to continue a leadership role at the regional and global levels’*. This therefore implies that the 6 pilot countries will A. Demonstrate how the GloBallast project activities have assisted them in successfully meeting the implementation requirements for the new Convention and can therefore be used by other countries B. will be expected to take a lead role thereafter in ballast water issues and approaches at the regional and global level.

It seems that there is now a need to re-group and advise (at a formal level) each country on A. The status of the Convention in relation to project activities and the GloBallast Project delivery as a whole (and the Guidelines) and B. provide a more precise and scheduled ‘End-of-Project’ landscape for both the countries and the MEPC to embrace based on the most up-to-date Convention expectations. This would need to take into consideration the very real possibility that there may not be an agreed Convention by the time that the Project closes. It is difficult to see how the end-of-project scenario (as very briefly summarised in the ProDoc) could be achieved if the project were to close before a Convention was defined and agreed.

From a non-national point-of-view, the PCU sees the project’s role as one of stimulating the national effort, not substituting it. From GEF’s perspective this is a very important concept. GEF’s role as a donor is to assist countries to meet their commitments and adopt sustainable mechanisms for doing so, not to provide a long-term replacement to national commitments. A project can only be deemed to be successful if a mechanism has been put in place that is nationally sustainable.

Sustainability

The likelihood of political sustainability would seem to be fairly strong, as long as countries do not lose too much momentum waiting for the Convention. As with all GEF projects, there is always the fear that national leaderships will change and with it the political will and agenda. Sensitisation at the

higher level of policy-makers must now be a priority but this, again, is constrained by the delays in the draft Convention. Hopefully progress will be made on this between now and the end of the project. Realistically, the sustainability of the current GloBallast project may not be realisable before the end of the project simply because of the absence of an adopted Convention. GEF should therefore consider and discuss this state of affairs with the Implementing Agency and the Executing Agency, as well as the PCU and Countries, and give further consideration to the possibility of an additional project to focus clearly on regional replication and sustainability, under a more realistic target and time-frame, and with respect to the amended Convention signatory date. This may be a necessity in order to protect the current investment as well as building on the exemplary achievements within the project so far.

The ship-owners and shipping industry as a whole seems prepared to fund training (in order to meet the requirements of a future Convention). It is unlikely they will fund research, except where it develops improvements to equipment and treatment processes. In short, they will provide support and funding which addresses legislated issues.

Some countries are finding it difficult to see where any sustainable funding for ballast water issues would come from once the project is complete. They feel that it would be merely a process of amending job descriptions for existing posts to cover new responsibilities. There is a general concern that this whole area of sustainability and national self-financing needs more guidance and discussion. An international donor conference is planned for 2003 but stakeholders are not sure if this will provide any resolution unless it has a clear agenda. Most countries would like to see some sort of survey undertaken to identify how this is handled in other countries that have existing self-financing mechanisms in place for similar Conventions or Annexes (i.e. An international review of the various alternatives for funding and sustainability based on existing practices in other countries).

In Iran, the stakeholders have given particular consideration to the overall concern of long-term sustainability. They feel that the issue of ballast water and invasive species is a complex one and they recognise the potential for severe conflict with the economic aspects of shipping and port management. They felt that more time was necessary before they could determine whether the project was effectively removing the barriers that it set out to remove. A lot depends upon how national standards for ballast water management are selected and adopted. However, the project is making a significant contribution toward coordinating global efforts and standardising activities related to ballast water issues. The private sector stakeholders are satisfied that there is a high level of national commitment to supporting the GloBallast project and its objectives, and toward adopting a lasting ballast water management strategy. Nevertheless, there is some doubt in the private sector as to how sustainable the objectives may be after the project support is finished. These stakeholders do recognise the need to surmount national and regional politics and for all countries to cooperate on these urgent issues relating to ballast water transportation and discharge.

Another concern expressed by the oil companies and shipping industry representatives is the different rules and regulations that may come into existence, making it difficult for shipping to comply. They are concerned that some member states of IMO will manage ballast water issues through their national legislation (As some are already doing) and will require ships from other member states to comply with their national rules and regulations. Where these are stricter than the Convention, some ships may be detained for non-compliance even though they are meeting with the Convention requirements. There is also concern regarding the lack of success in identifying an acceptable treatment process, and the on-going uncertainty about the form and status of the Convention. These concerns have been particularly expressed by both the shipping industry and the environmental groups

Stakeholder participation

Undoubtedly, the intersectoral nature of this project has been exemplary and illustrative. Every country has expressed satisfaction with the stakeholder involvement and participation. The stakeholder group themselves (e.g. the CPTFs in many cases) have confirmed the comprehensive

nature of their membership. The involvement of the shipping industry and owners is a major benefit to the development of long-term working relationships and transparency, as well as sustainability.

Stakeholders involved in the GPTF are pleased with the way it operates. They also have a very high opinion of the way that the PCU functions, referring to it as a model for UN coordination and collaboration with the NGO community. They also feel that the project itself is realistic and that the outputs are coherent with the objectives.

However, despite the excellent efforts and very real successes in relation to stakeholder participation and ownership of the project, as always there are some exceptions which are preventing full input and participation. Efforts need to be increased to try and engage these missing stakeholders if the Convention is to rest on the firm foundation of an integrated management of ballast water issues that will be necessary to make such an agreement functional.

Different countries are having different problems with stakeholder participation. Brazil is experiencing problems with getting NGOs involved; India is having difficulty in engaging the Ministry of Environment and Forests. The shipping industry seems to be involved as a stakeholder in all of the countries, but to a greater or lesser degree. South Africa has had problems engaging the shipping community (as well as the Department of Health) through the CPTF. The MTE could be used as a formal opportunity for the PCU to 'remind' the Lead Agencies of the need for full and participatory stakeholder involvement, citing some 'absentees' from the active national stakeholder input.

In South Africa, the academic community at the University of Cape Town has shown a very distinct interest in the project and has provided a lot of technical support and advice. They have expressed an interest in getting further involved in research into reproductive viability of invasive species, their distribution and spreading rates, etc. It may also be possible for them to assist with invasive species monitoring. They have been asked to be linked into the project's national website.

In discussions with representatives of the ship-owners associations, the Evaluators found them to be very supportive of the project and to consider themselves to have been closely and actively involved in the project from the earliest stages. The South African Ship-Owners Association were particularly vocal on the overall issue of ballast water and the Convention. They can see their function within the project as ensuring that ballast water is adequately managed, but in a realistic and pragmatic manner. There needs to be a policeable mechanisms and an effective policy. The biggest fear from the ship-owners is over-legislation. They want to see an equitable way to assess the problem and to legislate and enforce. They do not want to see 'blanket' legislation that will impose unrealistic requirements on 'safe' vessels at the same level as for 'high-risk' vessels as this would inevitably translate into unworkable additional costs. They believe the ship-owners would be prepared to see a 'user-pays'-principle type of fee from each ship as long as there is some government commitment and funding to handle management, monitoring and control. Governments need to realise that, once the project is finished, then the governments have to pick up a lot of the funding for continuing project activities and meeting objectives. But they believe that ship-owners around the world are not adverse to additional charges to control and manage the ballast water issue as long as it is reasonable and fair and not all dumped on the owners. They support the idea of a Convention, as this will encourage standardisation and a 'level playing-field' around the world.

Representatives of the Shipping Industry on the GPTF noted that one of their concerns is that the emphasis may be rather too much on creating controls on ships that must discharge ballast water. Early and unilateral implementation of such controls may well cause disturbance to trade flows, and thereby to the economic affairs of developing countries when large costs fall on the export industries (although those costs may not seem large to many developed countries). They feel that it may be more appropriate to encourage investigation of other protective measures such as shore reception of water, and treatment by local people where the value-for-effort is more cost-effective and can be appreciated locally.

One overall problem with stakeholder involvement (as identified by many of the stakeholders themselves) is that people are expected to contribute their time and involvement without any reimbursement for time or expenses. It is difficult for the Country Project Office to follow-up on deadlines for activities or information when people are volunteering their time. An example of this can be seen in Brazil where the project has a very keen Port Survey team but they are not paid for what they do and therefore it is unrealistic and embarrassing for country project staff to chase these volunteers for results.

The time may now be ripe for each country to review its stakeholder involvement with the PCU, to identify and 'gaps', and to take measures to engage missing stakeholders into the GloBallast process, using the development of the Convention as an incentive and encouragement.

Transparency of process and availability of information

There are no apparent problems with transparency of actions or access to data within this project. Some countries would wish to see more communication from the PCU and more sharing in the planning process of the project (e.g. Consultancy scheduling, etc). But they all recognise that this is less an issue of lack of transparency, and more one of excessive workload balanced against shortages of manpower.

Sometimes, the bureaucratic nature of a large UN Agency such as IMO may seem to be less than transparent and certainly less than efficient to a very proactive and time-constrained project of this nature. But this is never a deliberate attempt to hide or confuse, simply the necessary nature of running such a complex and highly-accountable body. Some of the PCU's recommendations for resolving this have included placing more accountability and responsibility within the PCU entity. This may be a valuable and serious consideration for any future projects of this nature.

On the subject of the overall Convention transparency, some stakeholders have perceived a movement within the MEPC meetings to replace the concept of ballast water exchange (sequential, flow-through, dilution, etc) with adoption of a policy of ballast water treatment (ultra-violet, filtration techniques, ultra-sound, heat treatment, chemical treatment, etc.). They perceive this as pressure from developed countries who are being lobbied by their equipment-developers and suppliers who stand to make enormous profits from such treatment approaches. However, stakeholders are pleased to note that there have been some important voices in the MEPC standing up for retaining ballast water exchange as a viable option.

As the countries themselves have requested, it would be of great advantage to all pilot countries if they shared examples of their awareness material and compared notes on issues, barriers, constraints and solutions regarding ballast water issues.

5 Assessment of achievements and constraints

In looking at the achievements of the GloBallast Project to date, it is necessary to review the workplan, and the PIP tables listing Component Outputs against Success Criteria. The problem which always affects the Mid Term Evaluation is that the success criteria are always geared to a final evaluation process. In theory, the only way to assess a project at the mid-term is to draw a line through the workplan at the date of the MTE and 'assess' what should have been achieved by that date against what has actually been achieved. This is by nature inevitably somewhat subjective for a number of reasons, some examples of which are:

- Projects are dynamic and several changes may be made to actual activities (both in content and sequence) during the project lifetime, arriving at more than one workplan revision.
- Assessing the progress made in a series of activities leading to an output is in itself subjective, as each activity will require a different level of effort (so any one activity may require as much time and effort as all of the others combined).
- Comparing between countries will be subjective as certain activities may be of a higher priority in one country than in another, either politically, or from the point-of-view of the importance of that specific activity to the success and sustainability of an output.

A more reasonable evaluation technique would be to review what has actually been achieved against what needs to be achieved by the end of the project, and arrive at an assessment of the likelihood of this happening. However, this also involves a certain amount of assumptions on the part of the Evaluator with regard to future actions, continued political support, etc. To complicate the process further, the Evaluators themselves may recommend amendments or changes to activities, outputs and Workplans, which will inevitably then change the schedule and requirements for delivery.

However, it is necessary to arrive at some assessment of the progress within the project, and the rate of delivery, so as to be able to advise the IA and EA on the best way forward to fulfil the success criteria by the end of the project.

This requires some level of rating or quantitative scoring. In this Evaluation of the GloBallast project we have used a Semi-Quantitative Assessment approach which aims to assess the actual achievements of the project up to the time of the MTE against the achievements defined in the Workplans. These Workplans are not designed to be an evaluation tool so much as a sequential guideline of events necessary to complete the project outputs. Also it requires the Evaluators to balance between the original workplan and the various revisions. It would be unfair to use just the original workplan as this may have been revised fairly early on in the implementation stage to account for necessary changes in sequence of delivery. Equally it would be improper to use the latest approved workplan as this may have been modified only a few weeks before the evaluation process and show a very favourable comparison between actual and scheduled workplan delivery!

This SQA approach assigns a scale of achievement for each output (based on the expected delivery and the success criteria for measuring that delivery) This provides a useful and quite accurate guideline to see which components are keeping up with the work plan and which have fallen behind, and in what activities they have fallen behind. The point to remember in this exercise is the fundamental requirement of the MTE, which is to provide guidance and improvement to the project implementation process to assist it in achieving its objectives successfully and sustainably.

In making this assessment the Evaluator has to make a judgement of the percentage of achievement per activity against the original work plan. To smooth-out the subjective nature of this approach, this is then converted to a scale from 1-5 whereby:

- 0 – 1.1 = Almost no delivery – Project sustainability severely in jeopardy. The Project stands a strong chance of failing in its objectives.

- 1.1-2.0 = Some effective delivery but generally poor and well behind schedule – unsustainable at present. Drastic measures needed to secure objectives.
- 2.1-3.0 = Borderline – Some notable achievements but needs greater delivery to be sustainable. Project certainly salvageable and can still be successful.
- 3.1-4.0 = Good to Impressive Delivery – Some activities may be behind, most are on or ahead of schedule. Project stands every chance of meeting its objectives and is expected to succeed but would benefit from some improvements and a review of priorities.
- 4.1-5.0 = Excellent Delivery – All outputs keeping pace with or ahead of the work plan. At present rate of delivery and achievement, project will be successful and sustainable.

Table 2 shows the semi-quantitative assessment of achievements within each component based on the evaluation process, the information recorded above, and the success criteria adopted in the 2002 Project Implementation Plan.

The overall delivery and success rate is extremely good with an average across the components of 3.8. This is on the high side of the 3.1-4.0 category listed above (in fact, not far removed from a rating of ‘Excellent Delivery’) and suggests that the project is delivering pretty much to schedule and that good progress is being made through the various activities toward completing the outputs and successful meeting the project’s overall objectives. However, the ‘delivery to schedule’ assessment has to be balanced against the project having been granted a 12 month extension to allow for this delivery rate. This is, once more, a reflection of inappropriate project design and not current project achievement.

The value of this process is that it clearly highlights the activities which, for various reasons, have fallen behind or are experiencing difficulty in delivery, and allows the Evaluators to make suggestions and recommendations for improvement.

The following is a component-by component review of project delivery. As well as the 7 Project Components, the Evaluators have included a further category for assessment based on the primary GEF funding criteria of Country Commitment, Sustainability, Stakeholder Participation and Transparency of Process/Information Accessibility.

Table 2. Semi-quantitative assessment of achievements within each component

COMPONENT OUTPUTS	SUCCESS CRITERIA	ESTIMATED PERCENTAGE OF WORK-PLAN COMPLETED BY MTE																			1-5 Rating
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	
PROGRAMME COORDINATION AND MANAGEMENT																					
Prog. Coord. & Man. Mech. Established and functional	PCU established and operational	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	5
Effective coordination between and among stakeholders	Information and Communications network established and functional	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3.75
Prog. Performance improves over time with input from evaluations/reviews	Programme evaluation and review procedures operating effectively	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4.25
In-Country administrative and coordination arrangements established and functional	Lead Agency and CFP designated and functional	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
	CFP Assistant engaged and functional	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
	CPTF formed and functional	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
GPTF formed and functioning effectively	Programme advised and assisted by GPTF	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
Component Total =																			4.1		
COMMUNICATION, EDUCATION AND AWARENESS																					
Level of awareness of ballast water issue raised among all stakeholders resulting in increased commitment to implement programmes and address the issues	Programme identity established	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	5
	Case Studies complete and communicated to stakeholders	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	2.5
	Generic communication material produced	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4.25
	Communication workplans developed	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
	Communication workplans implemented	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
Component Total =																			4.0		
RISK ASSESSMENT																					
All levels of management and all stakeholders have a clearer understanding of the level and types of risks of introductions that each port faces, as well as the most sensitive resources and values that might be threatened, and the management responses required	Risk Assessment completed for each demonstration site	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
	Baseline Port Surveys completed for each demonstration site	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
	System in place for future surveys	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	2.5
	Information gaps identified and activities to fill gaps defined	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3
Component Total =																			3.4		

Table 2. (Cont'd)

COMPONENT OUTPUTS	SUCCESS CRITERIA	ESTIMATED PERCENTAGE OF WORK-PLAN COMPLETED BY MTE																				1-5 Rating
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
BALLAST WATER MANAGEMENT MEASURES																						
Effective ballast water management measures implemented at each demonstration site (consistent with IMO guidelines and standards) to reduce the transfer of aquatic organisms in ballast water,	IMO Guidelines and industry models widely disseminated	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	5
	Education and training packages developed and delivered	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3
	Legislation reviews completed and recommendations discussed	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4.25
	Global R&D Symposium held	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	4
	BW Management Plans developed/adopted	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	2.5
		Component Total =																				3.8
COMPLIANCE, MONITORING AND ENFORCEMENT																						
Generic Compliance, Monitoring and Enforcement systems developed	Pilot countries ready and prepared to adapt CME systems after adoption of the anticipated Convention	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	2.5
		Component Total =																				2.5
REGIONAL REPLICATION																						
Creation of a programme regional support base	Demo sites protected against non-compliance by competing ports	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3
Increased likelihood of regional cooperation	Programme outputs adopted by other countries	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3
Mechanism for regional replication of demo results and lessons	Formal communication system functioning at regional level	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3.5
Strengthening of regional roles in ballast water issues	Programme regions are an effective presence in ballast water fora	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	3.5
		Component Total =																				3.3

Component 1: Programme Coordination and Management – Rated 4.1

Undoubtedly this has been a very successful component of the project. Despite some early teething troubles in implementation (which are frankly inevitable in any project let alone a global project of this nature), the overall management and coordination approach seems to have settled down into a well-organised and professional mechanism providing support and feedback to the project. There are still some areas for improvement but, again, these tend to reflect the global, widespread nature of the project, as well as the constraints to human resources at both the national level and that of the PCU. This is reflected in the reduction of review procedures since the start of the project visible in the lack of feedback on monthly national reports. Another improvement would be networking between countries and more sharing of experiences and information. The GPTF needs to be encouraged to be more active at an intersessional level and to develop more complete ownership of the project. In some significant part, the PCU staff must take a lot of the credit for this high rating, especially in view of the workload with which they are having to contend versus the paucity of support staff. However, much of this credit must also be extended to the country project entities at the CFP and CFP-A levels who are also showing themselves to be highly dedicated and motivated staff working almost single-handed, but with the support of well-constructed and representative CPTFs. There is some imbalance across the project in the level of the designated CFPs and how the CFPs and their Assistants interact.

Component 2: Communication, Education and Awareness Raising – Rated 4.0

Also a very successful component. The entire project and the GloBallast programme have an excellent profile and a very visible identity. Priority now needs to be given to completing the Case Studies and delivering them to where they are most needed – the countries. These Case Studies are critical to the awareness and sensitisation process and need to be available at a time when policy-level sensitisation must become a high priority (in parallel with the build-up to the draft Convention). The Case Studies provide the ammunition in the battle to engage the politicians and decision-makers into the process of ballast water control and management. Good communications material has been developed but ‘within-project’ networking and sharing of lessons/experiences is less than adequate.

Component 3: Risk Assessment – Rated 3.4

Risk Assessment and its associated Baseline Surveys are well underway. However, there were some fairly significant initial delays as a result of EA procedures. At the country level, national commitment from stakeholders to counterparting these activities has been less than perfect. If momentum can be maintained (and bearing in mind the project extension for one year) then delivery should be successful. The real areas of concern for the sustainable achievement of objectives under this component must be 1. The need to fill the information gaps (especially for ports in areas with poor information on species and habitat presence and distribution) and the need to identify mechanisms and activities to do this, and 2. The urgency of adopting a mechanism for long-term, sustainable assessments and surveys (a concern that was strongly identified by the relevant consultants), 3. The need for more information regarding species viability between ports (i.e. what will survive where, and survival rates in-transit). An important step now must also be a review of the RA and PBS process for each country to ensure that best practices are captured and lessons are learned, and due consideration to be given to an International Workshop to share and discuss findings. This could be done through the wrap-up workshops which are planned for 2003.

Component 4: Ballast Water Management Measures – Rated 3,8

The IMO Guidelines have been successfully disseminated and, as far as can be judged, are being followed and adhered to within each demonstration port. There is less clear information regarding the adoption of the Model Shipboard Management plans. However, the shipping industry appears to be highly supportive, and most of the demonstration ports are successfully collecting the required data

and ballast water exchange information. There have been some delays in the development of the training packages. The Evaluators now understand that South Africa will almost certainly not be able to meet its agreed target to deliver 5 of the 10 Train-X modules, and that Brazil may have to complete all 10. There is still a need to move further on the R&D front to encourage rapid development of treatment techniques. One of the concerns now is how long to continue with the voluntary guidelines before actual Convention-related management plans can be put in place. The countries are unsure how to react at present prior to the Convention and need some guidance.

Component 5: Compliance, Monitoring and Enforcement – Rated 2.5

Clearly this component has fallen well behind the original expectations of delivery. This is a result of the delay in moving forward with the draft Convention coupled to the reluctance (based on direct guidance from IMO) on the part of most countries to adopt new or amended legislation on ballast water control and management. Without clear national policies, laws and regulations, the countries perceive it to be very difficult to make any progress in CME. Consequently, they are a long way from completing the activities needed to bring them into a state of readiness for effective and sustainable CME (procurement and use of equipment, designation of personnel, training, implementation of the CME system, etc). Countries could have adopted interim legal measures in support of the voluntary guidelines (as, in fact, at least two countries seem to be doing). However, this raises concerns regarding the differences (in the final analysis) between the original IMO Guidelines and the draft Convention. There seems to be an urgent need here to review the requirements of the CME component in the context of the status of negotiations over the draft Convention, and to assess what can and should be done between now and the end of the project. This should constitute a set of guidelines to the countries, and may well require a revision and re-think of the component activities and outputs in order to rationalise the delivery from this component with the status of the development of the Convention, and national regulations and policies. This would be a valuable example of support from both IMO and the PCU towards the pilot policy and CME development process in each country.

Component 6: Regional Replication – Rated 3.3

This Component has achieved significant success within the pilot-country regions that were seen to be of the highest priority, notably Iran and Ukraine. These two countries (with the assistance of the PCU) have created a regional recognition of the GloBallast Programme which has extended to the creation of more formal agreements through action plans and through the designation of regional coordination institutions (i.e. ROPME and the Istanbul Commission). The degree of success in engaging other regional countries through other pilot countries varies considerably. Most are making efforts to develop formal communications with their regional counterparts, and some have already planned regional meetings to discuss the transfer of GloBallast lessons and to review institutional arrangements. However, there is still much to be done before the regions can be considered to be coordinated and functional as an effective presence under the GloBallast concept. In reviewing the success criteria for this Component, it is not realistic to say that the programme outputs have been fully adopted by other countries, that there is a fully functional and effective formal communication system at the regional level, or that all of the programme regions are an effective presence in the ballast water fora. Furthermore, any protection which the demonstration sites currently have against non-compliance by competing ports is a reflection of the voluntary nature of current compliance practices within the pilot countries (i.e. no competition has been created). However, this should be viewed in the context of the complex and global nature of this project and the actual significance of the regional achievements in replication which are exemplary in comparison to most other global projects of this nature. Again, where shortfalls in delivery under this Component exist, these must be seen in the context of inappropriate project design and not in the context of any inadequacies within the project delivery and staff efforts. Three years was a far too optimistic assessment of the time necessary for developing and consolidating such regional agreements, and the transfer of lessons and experiences from the pilot countries. Obviously this Component is very dependent on the

development and success of other project activities (i.e. there has to be ‘lessons and best practices’ before they can be replicated and transferred). This transfer of lessons from the pilot countries to regional partners in GloBallast is a critical objective of the project. Careful thought must now be given as to how this complicated and time-consuming process can now be improved and successfully completed.

Component 7: Resources and Financing – Rated 3.0

This Component is borderline between ‘Satisfactory’ and ‘Good’ reflecting a mixture of national uncertainty (and, once again, inadequate guidance and shortfalls in project design), and the need to place higher priority on delivery in other critical components in an environment of constrained human resources. Actual resources and financing associated with supporting the IMO voluntary guidelines have, to a large extent been identified. Potential resource and financing mechanisms are still dependent on the Convention and how the text defines the resource requirements at the country level. However, credit must be given to the countries for having started to adopt their own national mechanisms for funding IMO guideline implementation and compliance. Although interested donors have not specifically been identified, the generally widespread and high-quality awareness campaign has almost certainly initiated and generated interest and will assist in this process at the necessary time. Therefore, although there may be no specific commitments from donors, there is a high expectation of support in view of the high profile and excellent awareness campaigns of the GloBallast Programme. The International Donor Conference (as identified in the Project Document and the PIP) must now be seen a high priority to ensure success under this Component.

General GEF Criteria – Rated 4.3

An excellent rating for a GEF project. All of these criteria are being met and the project is providing model examples in some cases.

The ‘In-kind’ contributions to this project have been exceptional. There are some outstanding direct contributions which should be made as per the UNDP ProDoc and these may not be entirely up-to-date. However, this is overshadowed by the very real support given across all sectors by way of staff, research, administration, equipment, office space, support for meetings. Etc.

The policy commitment to the project at the national level appears to be very good. There is still a very real need for sensitisation at the highest political levels, and the need to ensure that awareness is dynamic and proactive to safeguard against changes in senior positions. The danger here is losing momentum whilst waiting for the Convention. National support for the Convention also appears to be very strong across all national sectors. They know its coming and wish to meet it head-on with strategies for successful implementation of relevant legislation and CME. The ship-owners are wary, however, of the form of legislation and the cost of complying with the Convention. Responsibilities for CME still need to be assigned.

Despite the lack of a donor conference so far, the potential for post-project funding must be high in view of the successes so far of GloBallast and the high global profile. This is an assumption out of necessity, but a fairly reasonable one based on available information.

National support for a Convention to address ballast water issues is high in all sectors (Government, private, NGO, etc).

Stakeholder engagement has been excellent. There are still some main ‘players’ missing in each country and this needs to be acted on as soon as possible. All stakeholders have been directly involved in project activities. This includes membership of the CPTFs, involvement in planning workshops, involvement in actual field exercises, etc. The only down-side to this success criterion is that not every main payer has been engaged. All project stakeholders have had the opportunity, where

possible, to be involved in the evaluation process. No-one was knowingly or deliberately excluded. Time constraints may have made a fully comprehensive involvement impractical.

There are no signs that country information is being withheld from the project out of misplaced sensitivity. Communications may not be all that would be desired however. Furthermore, there is no evidence that information would not or is not being shared with global partners. Again, the necessary communications and networking may not be ideal as yet.

6 Conclusions and recommendations arising from the evaluation

Overall, the project has been remarkably successful, particularly in view of the initial constraints inherent in the project design and the delays in the development and adoption of an International Convention. An exceptionally high level of awareness has been achieved across most sectors at a national and international level. The project has developed excellent websites, which are frequently visited by stakeholders, and a variety of most effective awareness materials (posters, calendars, brochures), which are on display in many institutes and agencies (academic, government, regional organisations, etc) throughout the world. There is a strong level of awareness and understanding throughout a diverse range of stakeholders, and a general level of strong support for the project that has undoubtedly been developed through the activities undertaken by the project.

The overall execution, management and coordination of the project has been carried out in a professional and diligent manner, an observation which is even more notable in view of the design constraints (particularly funding and manpower) and delays in the Convention. The PCU deserves credit for much of the drive behind keeping the project on-line and delivering. However, the in-country staff (CFPS and their Assistants) made a lasting impression on the Evaluation Team with their level of dedication and determination, and their desire to get the job done regardless of the efforts required. In this respect, and bearing in mind some of the criticism arising from the earlier meetings, the Evaluators were impressed with the ownership and professional bonding between the CFPs and their Assistants that was noticeable at the 4th GPTF meeting.

Country support and commitment has been exemplary for a project of this nature and, indeed, for any GEF International Waters project. Many countries are already embracing the concepts of ballast water management within their national policies and regulations. All of the participating countries have also committed substantial funding to ballast water activities, both within and beyond the demonstration sites, and well beyond their commitments as recorded in the original signed Project Document. Consistent with this commitment has been the high level of representative and pertinent stakeholder participation through the CPTFs and through in-country activities and workshops.

As a consequence of these achievements, commitments and support, the project has laid a very solid and enduring foundation for the long-term development and commitment to ballast water management in the developing world and economies in transition, and for the support of the forthcoming Convention. The activities and outputs of the various components have contributed to the understanding of barriers and constraints to the implementation of ballast water management strategies and approaches, and therefore to the on-the-ground implementation requirements for the expected Convention. An unusual but most desirable side-product of the successes of this project (and one not pre-conceived in the project design) is the model and unique nature of project deliveries in providing support and direct input/steering to the development and drafting of a major international Convention addressing both International Waters and Biodiversity issues as supported by GEF.

Undoubtedly, one of the more outstanding achievements of this project has been the impact that it has had on the elaboration of the Ballast Water Convention itself. Input from the GloBallast project (stemming from the basic GEF requirement of transparency and full participation) has assisted in making the draft text of the Convention more acceptable to all stakeholders, especially the Member State representatives. Furthermore, the very successful development of global partnerships and understanding that the project has created regarding the ballast water issue, along with a general global consensus of support for its activities, has laid the strongest possible foundations for paving the way for an early entry-into-force for the Convention. We feel that this will become clear and evident once the Convention becomes operational. In this respect, GEF should make every effort to capture the lessons from this project as Best Practices in support of developing future MEAs and GEF-related Conventions.

However, as with any project there have been some areas which have been less successful and some constraints and hurdles which have reduced the overall efficiency and success of the project. It is important to identify and address these, both for the sake of improving and fine-tuning the existing project, and with a view to providing feedback to GEF as lessons captured from this project which should be taken into consideration in future project design and implementation.

Any specific criticisms of project management and coordination must focus on the logistical and administrative delays, which seem to be an unavoidable product of the manpower shortages already identified, coupled with the unusually demanding bureaucratic requirements of the institute supporting the project PCU. Such concerns with the overall project coordination and management have focused on delays in contracting procedures, delays in disbursement of funds (e.g. to support consultant-supported activities such as Risk Assessment and Port Baseline Surveys), inadequate timelines allowed for project in-country activities (e.g. legal reviews, and the Evaluation process), and inadequate communication procedures between the PCU, the country representatives and/or the field consultants (e.g. excessive response times on email request for confirmation and/or information). In turn, country responses to the PCU over requests for action on particular project deliverables have not always been efficient, and in some cases have caused equal delays to PCU administrative procedures and project outputs (e.g. delays in the nomination of counterparts for in-country field exercises, nomination of inappropriate counterparts,).

On a more general level, the Evaluation has some concerns regarding the overall 'end-of-project' landscape in relation to delays within certain components, and the overall delay in agreement over a draft Convention text leading to postponement of the proposed dates for a diplomatic conference to adopt the Convention. Although the latter issue is a political one which is clearly beyond the control of the GEF project, regrettably it does impact on project delivery and the possible end-of-project scenario.

Several stakeholders involved with the project to a greater or lesser degree have expressed concern regarding the apparent lack of any effective mechanism within the Project Document to capture and transfer best lessons and practices at the national level. This is perhaps more a reflection of the project design, which concentrates on the full suite of supportive activities at the demonstration site, with far less emphasis on how the outputs and successes at the demonstration sites can be replicated throughout the rest of the ports in each of the 6 countries. Although there are obvious arguments against expecting GEF to fund replication of project achievements at other national ports (incremental cost eligibility, the concept of national versus global benefits, country commitment), it is still the responsibility of a GEF project to show how its investments in demonstration activities will be captured at the national and global level, and to identify the mechanisms, and indeed the sustainable funding for such mechanisms, if that project is to be considered as having been successful in its objectives. It is a creditable reflection on the commitment of the participating countries that many of them have, indeed, taken the initiative to promote replication of ballast water management approaches throughout their major national ports in the absence of such a clear mechanism. It is equally creditable that, where national entities have chosen to do this, they have been supported in this strategy by the PCU. However, a more clearly defined strategy for replication which identifies responsible bodies, mechanisms and funding sources would be of enormous benefit to the pilot countries.

At a regional level, replication of project objectives and deliverables, although having made significant steps, has also run into constraints as a result of aforementioned delays in country delivery and the adoption of the Convention. There is, however, considerable variation in the level of success with respect to regional engagement in the project. Both the country CFPs and the PCU must be given significant credit for the widespread and effective awareness campaign which has led to many countries approaching both the PCU and the demonstration-site countries with a view to wanting direct involvement in the GloBallast project. At least three countries have been extremely proactive in developing a high level of regional support for replication of the GloBallast processes, often through the direct involvement of substantive regional organisations with a high profile.

With regard to the ultimate objective of the project and its relation to the proposed Convention, the Evaluation recognises the concern, and the need for the project to address this concern in a dynamic and proactive manner. The delay in agreement over the draft Convention text and the subsequent delay in adoption of the Convention itself has inevitably and logically led to a consequent delay in the progress in those components related to legislation, compliance and enforcement, and (to some extent) education, training and the development of national ballast water management plans. Countries which are moving ahead with the adoption of the Guidelines into national policy and regulations are having to do so cautiously so that any changes and amendments are not out of line with the final Convention, which might risk the need for further and significant revision at a later date. These concerns are discussed in more detail in that section (above) which reviews the legislative activities under Component 4: Ballast Water Management Measures. Part of the problem lies in the fact that the original IMO GloBallast Programme and its legal activities and outputs were developed before this shift in direction relating to the Convention (i.e. It was initially believed that a future Convention would essentially adopt the existing Guidelines). The Guidelines themselves are premised on a technological and regulatory approach, and this is increasingly contrary to the general direction being taken by the States negotiating the Convention. As a result, the GloBallast Programme has needed to respond to these changes in direction in a dynamic and innovative manner, and now needs to react effectively to any shift in emphasis which the dynamic process of Convention negotiation may be causing with respect to the original Guidelines. This is particularly relevant to Component 5 on Compliance, Monitoring and Enforcement, which has run into delays as a result of uncertainties generated themselves by the delays in finalising the Convention text (and its inherent guidance/directives on compliance monitoring and enforcement). These concerns focus now particularly on what the end-scenario for the project will look like (especially with respect to Component 5 on C, M & E) if there is no formal diplomatic agreement on the Convention text before the project reaches the end of its life in approximately 12 months time.

As a result of the delays in the adoption of the Convention, as well as the directional changes in the possible end-product vis-à-vis national policy and legislative requirements, an unanticipated risk to the project delivery and the ultimate project success has emerged and moved to the forefront of project sustainability. In a commendable response to this situation, the pilot countries have taken the opportunity to continue to build up the foundation for a new legal regime and thereby helped to pave the way for easier and timely ratification of the Convention in its final form. In order to address the concern they have put compliance, monitoring and enforcement on hold while actively implementing all other activities in readiness for this new regime. Clearly there is now a need for a careful reconsideration of the activities and deliverables within Component 5 to see if they can still be achieved in time and what modifications or amendments might be in order to ensure their success. This will require an ‘adaptive management’ strategy on the part of the PCU and the countries. However, this project has already shown itself to be very capable of such proactive adaptation to oversights and new events and, in the opinion of the evaluators, can no doubt rise to this new challenge. The real concern here must be the time limitations and we would urge the IAs and the EAs to give the PCU every support in addressing and resolving this critical issue.

Recommendations arising from the GloBallast Mid Term Evaluation process

Based on the findings of the review of each component and its delivery, and on the overall conclusions above, the Evaluators make the following recommendations for consideration by the GPTF, and for implementation before, and beyond, the final closure of this project,

1 Improvements to existing project administration and coordination

A GPTF intersessional input to project

In order to maintain momentum, build ownership and ensure full participation there is a very real need for intersessional involvement of the GPTF in the discussion and decision-making process for project policy. The Evaluation recommends that the GPTF members engage in ‘round-robin’ feedback processes, teleconferences, and more intersessional reviews of documents pertaining to

policy and direction. This should not interfere in any way with the day-to-day coordination and management of the project. Examples of important policy and directional decisions which this process could assist include review and agreement of proposals for further activities beyond the project lifetime (see recommendation 4).

B *Improved international liaison and communications between the CFPs as well as the CFP-As*

There is little evidence of any coordination or discussions between project staff from different countries, yet this is an important opportunity for sharing lessons and best practices. One very useful output from this could be sharing of awareness/educational materials developed at the national level. The role of the PCU as the clearing-house should not be overlooked and this information should always be lodged with the Coordinating Unit. The project might also consider continued work with IW:LEARN to utilize strategies and technologies for intra-project knowledge-sharing.

C *Finalisation of Case Studies*

It is now most urgent that the Case Studies are finalised and circulated to each country. This is an example of where momentum has been lost (for reasons that can be related to resource shortages). These Case Studies are now very important for sensitising policy-makers in each country (see Recommendation 2.A).

D *Additional resources for programme and draft Convention*

Real attention must now be given to the need to concentrate the efforts of the PCU staff on direct project activities in order to deliver the outputs on time. There is absolutely no criticism aimed at the PCU in respect of this recommendation but their services and time have been diluted in order to respond to the multitude of issues and questions arising from the Convention process and global ballast water issues *per se*. As a consequence, the PCU has started to act and to be treated as some sort of pre-Convention Secretariat. It is not the function of a PCU coordinating a GEF project to service the needs and demands very often originating from developed countries. This should now be IMO's role (i) as part of their commitment to developing the Convention, and (ii) as part of their 'in-kind' value given to the project as an Executing Agency. It now seems vital that additional resources (human and funding) need to be identified to support this process and this may be the time for the Implementing Agency, the Executing Agency and the PCU to sit and resolve this issue, possibly with serious consideration given to attracting the interest of other donors, many of whom are interested in supporting the programme and the Convention. It should be noted, however, that the ultimate decision on a support structure to implementation of the Convention lies in the hands of the Contracting parties to the Convention and would probably not be agreed upon until the first Conference of the Parties; presumably the parties would mandate IMO with certain Convention-related functions and IMO would request additional contributions from its member states to cover such function. So while the project Executing and Implementing Agencies might act to 'urge' such 'mainstreaming' of Convention support functions, it is important to remember that it is primarily the responsibility of the contracting parties to ensure such mechanisms are put in place.

2 *Rationalisation of activities that are behind schedule as a result of inappropriate project design*

A *Targeted awareness*

Although the project has done an excellent job of awareness-raising at both the national and international level, there is now a need to focus on sensitising national policy-makers. This is particularly important now to build national and regional support for implementation and compliance to the Convention, and to consolidate the achievements of the project so far. Countries should now focus on the development of an awareness package aimed specifically at the top-level decision-makers in government and the private sector (e.g. shipping industry). These packages can be tailored to the needs of the country using country-specific input and examples which are more sensitive to national political concerns and understandings. Selected information

from the Case Studies and from the Risk Assessment Component would be most valuable and effective within this package. Emphasis should be given to invasive species threats in terms of lost revenue and investments, costs of remediation, damage to markets, loss of jobs, and other socio-economic impacts. Project staff should give careful consideration (possibly assisted by the PCU) to the best mechanism for delivery at the national level so as to ensure the greatest impact.

B *Engagement of missing stakeholders*

Although the GloBallast project stands as a model for stakeholder involvement and participation, there are still important groups which are not fully represented at each national level, usually despite attempts to engage them in the project. Capturing their participation is particularly important in view of the need to ensure that national ballast water management policy and strategy is an integrated approach, with effective coordination and management, and sharing of information across all sectors. The role of IMO as the Executing Agency for the project could be of enormous value as they could approach each pilot country through a parallel formal letter updating relevant stakeholders in each country on the status of the Convention, and the need to work together to support and adopt this critical agreement. The input of the CFPs will be critical in this process in order to access the necessary stakeholders, and to handle the situation diplomatically and avoid any possible offence or misconception.

C *Review of the risk assessment component*

Both the stakeholders in-country and the consultants for PBS and RA have identified the need to review the activities within this component to identify any gaps, identify the need for further surveys in order to strengthen and sustain capacity, and to identify mechanisms and responsibilities for long-term monitoring related to these activities. Each country should undertake this exercise in coordination and liaison with the consultants and produce a brief overview and workplan to address these needs. The consultants and the countries have requested a 'wrap-up' workshop to review the activities, to capture lessons, and to discuss the way forward for each country. The PCU has supported this need. A sequential plan-of-action needs to be defined to guide the countries through this process to the workshop stage, and funding for the workshop will need to be identified. A document for presentation at an international workshop could be developed by each country with two representatives going forward to present their document/proposed workplan.

D *Strengthening regional replication*

Each country should now develop a workplan showing how it intends to move forward with its regional replication activities. This plan should be built around a realistic timeframe (even if this extends beyond the existing project lifetime). This will be an important moment in which to coordinate between the pilot countries and for those countries more advanced in the regional replication process to share their experiences with others. These work-plans will also be of enormous benefit in assisting with the realisation of Recommendation 4 (below).

E *Review of possible financial mechanisms for ballast water management*

Countries have expressed the wish to explore the options for financing ballast water management and the capture of revenues for the same. They wish to see what other countries are doing in this respect. The countries, along with the PCU should review how other countries control and finance CME for ballast water management, and for similar international agreements and conventions (including other IMO Conventions, annexes and protocols). The findings of such a review would make a valuable contribution to Recommendation 4 (below).

F *Review of sustainable institutional arrangements for ballast water management*

Each country, through its Lead Agency, should undertake a survey of its institutions and personnel that are dealing with (or are most likely to deal with) ballast water issues. This survey should identify the roles, responsibilities and relationships of such institutes/persons. It should define an acceptable and integrated management and coordination mechanism for ballast water

management once a Convention has been adopted. This information would also make a valuable contribution to Recommendation 4 (below).

3 Rationalisation of project activities constrained by the absence of an agreed convention

It would now be valuable to review those activities that have been delayed or affected in some way by the delays in the adoption of the Convention. This is particularly important in view of the fact that the project expected the Convention to be adopted shortly after it began implementation in 1999. In considering the following recommendation points (A-C) the project needs to prepare itself to act swiftly and effectively in its final months to respond to any final draft text of the Convention. This response must include immediate action (once the text has been clarified) to implement Component 5 on Compliance, Monitoring and Enforcement as far as is feasible and possible within the remaining time-constraints and resources available. To some extent this will also apply to the need to update training requirements and ballast water plans based on the final Convention text.

A Review of CME component

Adoption of CME systems and most of the activities under this component are, to some extent, dependent on the final format of the Convention. The 3rd GPTF agreed that the progress of the draft Convention and the CME activities are directly linked, and that therefore the CME activities should be re-scheduled until after a Convention has been adopted. It would be appropriate now for the project to review this situation and to act dynamically (where appropriate) to identify how the CME components can achieve an acceptable measure of delivery and success. This could include a comparison of the existing IMO Guidelines with the latest text for the draft Convention, as well as the expectations from the shipping industry and IMO. This review should (i) define what short-term measures could be taken within the IMO Guidelines that would be unlikely to need significant amendment after a new Convention is adopted, (ii) develop and implement a short-term action plan to adopt such CME methods and strategies, (iii) Define what will need to be postponed and re-scheduled for after a Convention is adopted. This latter activity would then input into Recommendation 4 (below). Due consideration must be given here to different legislative and regulatory requirements which are likely to apply to the latest text of the draft Convention versus the original IMO Guidelines.

B Review of training needs

Training is likely to be directly affected by the final contents of the draft Convention. Again, there is a concern that the project is developing training modules addressing the Guidelines, which will no longer be appropriate when the Convention is adopted. However, Train-X allows for easy changes to the module's content and the modules are being written, wherever possible, with due attention to the provisions of the draft Convention. In view of the on-going delays in the drafting and agreement on the new Convention, a comparison of the most probably training requirements for the draft Convention with those being developed under Train-X would help to understand and address differences which might arise. Once again, this information would make a valuable input to Recommendation 4 (below).

C Review of ballast water plans

As for A & B above, it would also be valuable to review what each country has done, and what it intends to do before the end of the project, with respect to both shipboard and port-specific ballast water management plans. Again, the final Convention text will have a direct impact upon how effective such plans can really be. Once more, this information should input to Recommendation 4 (below).

4 Re-scheduling of convention-related activities and full regional replication to a follow-up project phase

Two constraints have affected the implementation of this project, and are likely to have an even greater affect as the project reaches its final stage. One of these is the original project design, and the other is the unexpected but quite prolonged delay in agreement on a draft Convention text leading to

adoption of the Convention. It is important to reiterate that both of these constraints are exogenous to the various entities involved in the implementation of the project, the PCU, CFPs, etc. These constraints represent unanticipated risks that the project must now endeavour to address through a process of adaptive management.

Undoubtedly the original project design was far too optimistic in its expectations of delivery when considered against the human and financial resources allocated, and the time-frame. This has resulted in a number of delays in outputs which Recommendation 2 attempts to address through review and conclusion. However, in doing so it is inevitable that these conclusions will identify two simple options. The first is that delivery on these outputs will not be achieved, as there is insufficient time or resources under the existing project. The second is that the outputs can be achieved as planned, but only through an additional input of time and resources.

The delays in the Convention could not have been foreseen, although a more cautious approach within the design of the project and the initial implementation of activities might have attempted to address this. In view of the prolonged nature of the delays it is unlikely that any successful strategy could have resolved this situation. The future Convention appears likely revolve around a flag-state based International Certificate rather than the combined ship management and port based risk assessment system provided in the Guidelines. In any event, port baseline studies and laboratories and inspections to assess risk may well be beyond the financial and resources (equipment and human) capacity of most countries (not just the pilot countries used in the project). It should be noted that the port-based approach may tend to shift the onus for risk decisions to the port country government (and therefore may affect future liability for decisions which may prove wrong) while the Certificate system tends to place primary responsibility to the flag state and/or ship itself. In short, there is still much to be discussed and agreed and so much of this has a direct bearing on the project's activities and delivery.

This situation should be considered in light of the excellent and exemplary progress made within those activities and outputs that are not so directly dependent upon the text of the Convention, and which (mainly as a result of sheer determination and dedication at the national and international level) have not been affected by resource and time constraints. In many ways this project is a model example to GEF of global cooperation and participation, and enormous strides have been taken in promoting awareness, building capacity, creating a global partnership, developing regional plans for ballast water, effective and transparent stakeholder participation, etc. So many of these represent GEF criteria that it is hard to consider any regional or international project that has met so many of GEF's strict requirements in such a short time across such a large geographical area.

Taking all of the above concerns into consideration, this Evaluation can only reach one logical conclusion. This project needs:

- A review of activities to see what can now realistically be achieved within the remaining short timeframe (see relevant outputs from Recommendations 2 and 3 above)
- An assessment and synopsis of what the likely requirements of the Convention will be in relation to the existing IMO Guidelines
- The development of a new project focused on regional replication of best practices for ships' ballast water management integrated in the broader context of aquatic invasive species building on the existing investment, and excellent progress of this first project (GloBallast I)

The principle elements of such a second project should contain the following:

- A The capture of lessons and best practices from GloBallast I.
- B Consideration of the inputs to such a follow-up project from Evaluation Recommendations 2 and 3 with respect to regional replication workplans, training needs, and future national and shipboard ballast water management plans.

- C The execution of a Conference of Stakeholders to review the content and requirements of a further project proposal, ensuring input to specific Conference Agenda items from the review of financial mechanisms (recommendation 2.E.above, and the review of institutional arrangements (recommendation 2.F. above), as well those items listed under 4.B. The original project document identifies the need for a conference to discuss donor support and funding. This newly-recommended Conference will undertake this role, but for a second project as well as for long-term GloBallast sustainability.

The Evaluators feel strongly that there is a very real risk of losing GEF's investment in this vitally important global initiative if such a second project is not considered. In this regard, it should be recalled that the GEF (Operational Strategy) ranked invasive aquatic species as one of the four most important threats to international waters, and it is widely agreed that ship ballast water is by far the most dominant vector for transfer of invasive species. On the other hand, this recommendation is not made lightly, and the Evaluators would not consider supporting any such further proposal if there was a chance that GEF money would be wasted and that the overall global objectives might be anything other than successful following this additional initiative. Furthermore, the Evaluators also feel strongly that such a proposal would need to clearly and absolutely reflect the fact that this next phase of GloBallast is building on the first phase, and not duplicating it. Emphasis should be made on Implementation of regional Action Plans to support the Convention, on the capture of the lessons and practices from GloBallast I, on building regional and global partnerships with related initiatives and programmes.

The Evaluators would like to extend their gratitude to all stakeholders who assisted them throughout the world. We have been treated with every possible hospitality and given every assistance. We also greatly appreciated the opportunity to attend the 4th GPTF and to present a draft summary of the MTE findings. It was most enlightening and valuable to be able to receive group feedback at that forum. Please accept our heartfelt thanks!

7 Lessons from the evaluation for GEF to consider in future project development

A Project design

Generally, a more careful process of vetting is recommended for Project Design before approval. This should consider all of the following requirements.

- 1 **Timeframe:** A realistic and justifiable time-scale based on a workable time schedule and workplan. The need to fall within a pre-conceived budget bracket should NOT drive this. It is better to reduce the project's objectives than to force a project into an unachievable (albeit theoretically tidy and logical) set of deliveries.
- 2 **Human resources:** The human resources allocated to a project through the ProDoc needs very careful consideration. Many projects have been handicapped by laudable and realistic objectives and outputs, which were unachievable as a result of insufficient and/or inappropriate staff. This is an area of a project that is classically underestimated. The commitment of support from the Executing Agencies and the potential for support from other donors or NGOs should be more thoroughly explored. Careful consideration must be given to staffing levels within the Project Coordination Unit. These must be realistic for the responsibilities and deliveries required and must relate to the regional and global nature of projects, where considerably more effort and travel is required for successful coordination. National staffing levels and responsibilities need careful consideration also. A Country Focal Point provided by a government agency cannot be expected to run the project at the national level. Such a person has their own responsibilities and duties to government, and must be given a dedicated full-time assistant at the very least.
- 3 **Financial resources:** Funding for project activities must be more carefully estimated so as to be adequate and appropriate. Again, the need to fall within a pre-conceived budget bracket should NOT drive this (although it nearly always does). There is little point in writing-in a project output if there will be insufficient finances available to deliver such an output. This relates directly to project timeframe and human resources (1 & 2 above).
- 4 **Stakeholder participation:** Stakeholders to projects often represent organisations with very limited financial resources. This can prevent their effective participation in project workshops and meetings. The need to allocate financial support for such important participation should be taken into account when creating the project budget and should be identified as a priority within the ProDoc.
- 5 **Administrative streamlining:** Executing Agencies need to streamline their administration procedures and avoid unnecessary bureaucratic delays when dealing with projects facing strict deadlines, as opposed to their normal day-to-day procedures. The Implementing Agency needs to resolve acceptable procedures with the EA at the inception stage. Production of an early national workplan by each country should allow the EA to approve pre-agreed expenditures to a realistic ceiling level, and to agree on consultancy requirements (national workplans should therefore include ToRs for all expected consultancies) to streamline the procuring and contracting processes.
- 6 **National capacity assessment:** The PDF phase should undertake a clear and precise assessment of national capacities to carry out proposed activities. This is essential not only for the long-term success and sustainability of the project once implemented, but also as a vital aid to defining human resource/consultancy requirements and therefore a realistic project budget.
- 7 **Roles and responsibilities:** The responsibilities and functions of all project Committees, Task Forces, Working Groups and individual project staff need to be clearly defined within the ProDoc (both to avoid any later confusion and dispute, and to save time at a later stage in trying to get

such ToRs developed by the countries). In the case of ‘in-kind’-contributed personnel, the relative position of that person within an organisation is also important and should be specified. This is particularly important in the case of Country Focal Points. Obviously it is the prerogative of the country itself to nominate such a person, but clear guidance should be given on the most appropriate existing level of such a person within government (e.g. A line-manager. Not too senior or that person will not be able to give any attention to project. Not too junior as the person must have access to policy-makers). It should also be made clear that the government agency or department seconding such a person to project activities will make arrangements to allow that person time to work on the project (albeit voluntarily).

- 8 **Letters of endorsement:** The need to approach countries during the project implementation stage for their signatures to additional MoUs and LFCs causes additional frictions and delays which can be quite harmful to the all-important process of building trust and project ownership at the early stages of implementation. It would be far more effective if the countries were to sign the original UNDP Project Document thereby agreeing to the contents in total. Although this may take additional time in finalising the GEF requirements prior to implementation, this would be more than balanced by the saving in time, the avoidance of friction, and the need to prevent the inevitable re-visiting of project deliverables during project implementation
- 9 **Contracting of persons in national employment:** The Implementing Agencies need to reach a clear understanding of the definition of their own policies on the hiring of national experts in existing government or academic employment. Such a definition of the policy, while needing to be accurate, also needs to be pragmatic and address the need for the input from such experts (who are frequently the only specialist in-country), while recognising the politically-correct policy of not paying nationally-salaried staff, or of creating competition between GEF and Government for staff services. This definition should then be unambiguously clarified in the ProDoc to avoid further delays and frictions in project implementation.

B Project implementation

- 1 **Training on IA rules/regulations:** Relevant staff should be given direct training on administrative, procurement and contracting procedures as required by the Implementing Agency. This should happen at the inception stage to avoid many of the inherent delays and misunderstandings caused by these processes. In the case where UNDP is the IA, UNDP Country Offices can provide this service and this should be clarified within the project document.
- 2 **Realistic timeframes and funding for international experts:** Assuming that the timeframes and funds for such activities have been properly assessed and realistically reflected in the original ProDoc, the EA must ensure that such funds are available to support consultancy activities and that sufficient time is allowed for these activities. This funding requirement does not just refer to the salaries of consultants but to the need to provide support to the activity by way of equipment, transport, translation facilities, meeting facilities, etc. Similarly, the time requirement does not only refer to the available time of the consultant, but also to the need for equipment to be procured and arrangements for meetings and transportation to be made well in advance to support the relevant activity (see also Recommendation A1, A2, A3).
- 3 **Counterpart selection/identification:** Counterparts working on specific activities (often alongside International Experts) need to be selected and approved well in advance of the activity starting. Lead Agencies in-country need to be given a clear definition of the purpose and function of such a counterpart, qualification requirements, availability vis-à-vis the timeframe of the activity, and expected country support to that counterpart (equipment, laboratory facilities, transport, *per diem* allowances, etc). International Experts, who will be working on or overseeing the activity for which the counterpart will be engaged, should assist in the preparation of this list of requirements.

- 4 **UNDP Country Office role:** In specific cases where UNDP is the Implementing Agency, the support role of the UNDP Country Offices should be clearly defined and agreed with those offices. One of their main functions should be providing assistance with administrative procedures controlled by the Rules and Regulations of the IA. These include procurement of equipment, salary levels, and staff contracting. However, in all fairness to the UNDP Country Offices, they must receive compensation from the EA for such execution-related support services; this is the agree procedure and requires a negotiation between the CO and the EA and comes out of the EA support costs

C GEF support to international agreements

The lessons learned from this current project are particularly valuable to GEF as this is probably the first instance of a GEF project providing capacity building and technical assistance in parallel to the development of a significant global Treaty, as is the draft Convention on Ballast Water. One clear lesson from this has been the problem caused by the delay in the Convention. The project was designed on the basis of a Convention being approved during the first year of implementation. Because this did not happen, selected activities are on-hold. In future it would be advisable to design such a project in support of Convention or Treaty development and implementation into those two phases. In other words, the project should address the development phase first, creating and supporting demonstrations specifically to provide lessons and experience to provide input to the development process of the Convention/Treaty. Then, a separate phase or project should deal with the implementation of the Convention/Treaty vis-à-vis full application of Convention requirements at the pilot/national level followed by transfer of lessons and practices on a regional/global level.

The real concern here is to design the process in such a way that it can be flexible to the inevitable delays which will be experienced in the design and adoption of any International Agreement of this nature, while still delivering valuable outputs within GEF's guidance and criteria.

**Appendix 1:
Description of assessment of project
impacts from the 2002 Project
Implementation Review**

(Taken from the GloBallast Project Implementation Review, June 2002)

The GloBallast project, a cooperative initiative of the Global Environment Facility, the United Nations Development Programme and the International Maritime Organisation commenced in March 2000 and this review covers the period until June 2001.

The project is firmly engaged to deliver the development objectives as described in the ProDoc, and the establishment of the Project Coordination Unit (PCU) at the IMO headquarters in London was the first step towards achieving this goal. The three-person unit comprises the Chief Technical Adviser, the Technical Adviser and the Administrative Assistant. During the reviewed period it became clear that the workload was in many cases underestimated, and additional secretarial support was engaged, on a temporary basis.

The first major task of the PCU was to review the original Project Document and develop an operational Project Implementation Plan (PIP). The plan was reviewed by the 1st Global Project Task Force (CPTF) in July 2000 and approved by UNDP and IMO. Implementation of activities is now proceeding in accordance with the PIP. The PCU established a global information/communication network, information resource centre and clearinghouse function. This was meant to assist increased dissemination and communication of ballast water management issues (two ways) to and from relevant stakeholders.

In spite of some delays in transferring the necessary funds to the pilot countries the institutional in-country arrangements were completed and the Lead Agencies and the Country Project Task Forces (CPTF) are currently operational. Senior officials have been appointed by all the participating governments to act as Country Focal Points (CFP) and CFP assistants were recruited in all the six countries. PCU produced guidelines for CPTFs providing each country with a standardised framework for the roles and functions, membership and structure of CPTFS and how to run CPTF meetings. It is notable that all the CPTFs comprise a broad range of stakeholders, including representatives of ministries, industry, NGOs and academia. Through a highly participatory process and with direct assistance from PCU the CPTFs developed their National Workplans and budgets and the local activities are currently conducted in accordance with the approved National Plans.

All six participating countries have commenced inspection of ships calling at their established demonstration sites and collect on a systematic basis the IMO reporting forms recommended in the IMO guidelines. The information is currently stored and processed electronically in three of the pilot countries and two countries have already enforced these activities through ministerial ordinances and local regulations. Two countries are currently contemplating the extension of inspection regimes at national level and the establishment of national databases.

It has become increasingly evident that the GloBallast project has steadily gained essential credibility and momentum in the international arena. Significant progress has been made in building “win-win” relationships with other UN programmes and GEF sister projects. Cooperative relationships were established with the Secretariat of the Convention on Biological Diversity, the Train- Sea- Coast project of DOALOS and the GEF-Caspian Environment Programme. Exploratory discussions are currently taking place with UNEP Mediterranean Action Plan and Black Sea Environment Programme.

IMO’s commitment towards supporting the GloBallast project and adopting the ballast water convention is in line with the objective of the Contaminant-Based Operational Programme regarding involvement of UN agencies in global projects.

The direct contributions to the short-term objectives of the above GEF Operational Programme include:

- Providing new technologies for ballast water treatment
- Comprehensive capacity building to deal with port baseline surveys and risk assessments.

- Gradual removal of the barriers to the effective implementation of ballast water control and management measures; and
- Adoption of the best practices for minimising the transfer of harmful aquatic organisms and pathogens.

The incremental costs associated with development of new technology for ballast water treatments and the costs associated with the establishment of an information sharing mechanism in Brazil and China are examples of outputs from the GloBallast project in the Operational Programme No.10.

While adherence to the IMO guidelines would result in the significant reduction in the threat posed by uncontrolled ballast water release, compliance with voluntary guidelines may not be totally efficient, and in many cases, is difficult to enforce. Consequently one of the priorities of IMO is the completion and adoption of the international convention to regulate and monitor ballast water issues. Due to the complexity of such an instrument the adoption of the convention was postponed for the second half of 2003, which falls beyond the lifespan of the GloBallast project. If the parties involved, including pilot countries, IMO and ultimately UNDP and GEF will not be able to bridge the gap between the termination of the project and the adoption of the convention, GloBallast will not succeed in achieving the development objective and will remain a theoretical exercise with very limited practical impact.

**Appendix 2:
List of persons interviewed
or consulted during the
Mid Term Evaluation**

PCU	Dandu Pughiuc , Chief Technical Advisor Steve Raaymakers , Technical Advisor
Brazil	Robson Jose Calixto , Representative of Country Focal Point Alexandre de C Leal Neto , Country Focal Point Assistant Fernando S. N. De Araujo , Chief of Environmental Section, Brazilian Navy Flavio da Costa Fernandes , Chief Scientist, Sea Studies Institute of Admiral Paulo Moreira
China	Liu Gongchen , Executive Director, Maritime Safety Administration Zheng Heping , Country Focal Point, Deputy Director General of China MSA Zhao Dianrong , Country Focal Point Assistant Wang Bin , Division Director, China State Oceanic Administration (SOA) Fang Zhiqiang , Deputy Division Chief, China State Inspection and Quarantine Administration Fan Enyuan , Deputy Director Research Institution, Fishery Authority, Ministry of Agriculture Wei Jingtian , Senior Officer, Department of International Cooperation, Ministry of Communications Wang Weibin , Deputy Director, Engineering Department, COSCO Shipping Company Gao Jie , Director, Environment Protection Center, Ministry of Communications Lao Hui , Consultant, Environment Protection Center MOC Xu Shiming , Senior Officer, China MSA Yang Chun , Deputy Director General Liaoning MSA Zhao Dexiang , Division Director of Control of Pollution from Ships, Liaoning MSA Zhang Jiuxin , Deputy Director of Control of Pollution from Ships, Delegate to MEPC BW Working Group, Liaoning MSA Xu Xiaoman , Environment Officer, Liaoning MSA Jiang Yuewen , Manager, Port Baseline Survey, Marine Environment Monitoring Center of SOA Wang Lijun , Biologist, Marine Environment Monitoring Center of SOA Guo Hao , Biologist, Marine Environment Monitoring Center of SOA Zhang Shuohui , Professor, Dalian Maritime University Dang Kun , Associate Professor, Dalian Maritime University Liu Yan , Database Officer, Liaoning MSA
India	Sanjoy Chakrabarty , Country Focal Point Geeta Joshi , Country Focal Point Assistant A.C. Anil , Head of Marine Corrosion and Material Research, National Institute of Oceanography Sanjay V. Deshmukh , Director of Research, Rambhau Mhalgi Prabodhini (NGO) U.B. Ranadive , Principal Surveyor, Indian Register of Shipping J.K. Dhar , Extra First Class Engineer and Vice Principal LBS College of Advanced Maritime Studies and Research A. W. Karkare Master Pilot, Mumbai Port Trust Thekkekere Narayana , Principal of the Shipping Corporation of India Ltd S. B. Kundargi , General Manager of the Shipping Corporation of India Ltd
Iran	Hassan Taymourtash , Country Focal Point Yavari Vahid , Country Focal Point Assistant Nasser Kayvanrad , Marine Environment Expert, Ports and Shipping Organisation, Ministry of Road and Transport Farrokh Nejad , Senior Berthing Master, National Iranian Offshore Oil Company

- South Africa** **Lynn Jackson**, Country Focal Point
Adnan Awad Country Focal Point Assistant
Jimmy Norman, Pollution Officer, NPA Saldanha Port
Gavin Durrel, South African Ship Owners Association
Charles Griffiths, Zoology Department, University Of CapeTown
- Ukraine** **Vladimir Rabotnyov**, Country Focal Point
Sergey Limanchuk, Country Focal Point Assistant
Igor Borovskyy, Head of Ecology Division, Odessa Sea Commercial Port
Roman Bashtannyy, State Inspector, Shipping Safety Inspectorate of Ukraine
Prof. Yuvenaliy Zaitsev, Odessa Branch, Institute of Biology of Southern Seas
- Others** **Roger Lankester**, Friends of the Earth, International Oceans Division
Alec Bilney, International Chamber of Shipping, UK
Carl Gustaf Lundin, Head of Global Marine Programmes, IUCN
Iain Chadwick, Oil Companies International Maritime Forum
Tim Wilkins, INTERTANKO
Marnie Campbell, GloBallast Port Baseline Consultant, Marine Ecologist, Corporate Process Management, Australia
Robert Hilliard, GloBallast Risk Assessment Consultant, Principal Marine Environmental Scientist, URS Dames and Moore, Australia
Moira McConnell, GloBallast Legal Consultant, Professor of Law and Professor of Maritime Affairs, World Maritime University, Sweden

- South Africa** **Lynn Jackson**, Country Focal Point
Adnan Awad Country Focal Point Assistant
Jimmy Norman, Pollution Officer, NPA Saldanha Port
Gavin Durrel, South African Ship Owners Association
Charles Griffiths, Zoology Department, University Of CapeTown
- Ukraine** **Vladimir Rabotnyov**, Country Focal Point
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Iain Chadwick, Oil Companies International Maritime Forum
Tim Wilkins, INTERTANKO
Marnie Campbell, GloBallast Port Baseline Consultant, Marine Ecologist, Corporate Process Management, Australia
Robert Hilliard, GloBallast Risk Assessment Consultant, Principal Marine Environmental Scientist, URS Dames and Moore, Australia
Moira McConnell, GloBallast Legal Consultant, Professor of Law and Professor of Maritime Affairs, World Maritime University, Sweden



More Information?

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