

Global Project Task Force (GPTF) Fourth Meeting

BEIJING, CHINA, 28-30 OCT 2002

Proceedings

Global Ballast Water
Management Programme





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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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Group Photograph



Opening Statement

By Mr. Dandu Pughiuc

Chief Technical Adviser, GloBallast Programme Coordination Unit

Mr Director General, ladies and gentlemen,

It is a special privilege to be given the opportunity of addressing this meeting today. I would like to start by reiterating PCU's commitment to contributing to the development and implementation of a standardized ballast water management regime worldwide. We are determined to maintain the international momentum generated by GloBallast activities and we are proud of the substantial contribution the Programme has already made to the development of the anticipated International Convention for the Control and Management of Ships' Ballast Water and Sediments. The Diplomatic Conference is now scheduled for January-February 2004.

The problem of harmful aquatic organisms in ballast water was first raised at IMO in 1988 and since then MEPC, together with MSC and certain technical sub-committees, have been dealing with the issue. To assist developing countries to understand the problem, and to monitor the situation, IMO is implementing the GEF/UNDP/IMO Global Ballast Water Management Programme. The World Summit in Johannesburg, earlier this year, emphasized the importance of the issue of marine invasive species and urged IMO to finalize the new Convention on Ballast Water Management.

Clearly it is important that a solid international regime should be established by IMO so that the risk of invasions by destructive species can be minimized. The measures to achieve this should be realistic and be capable of implementation utilizing current technology and operating procedures.

As yet, there has not been a breakthrough in technology for the treatment of ballast water to meet the standards, which are still being developed. However, we are hopeful that the significant research and development effort that is underway around the world, with GloBallast's R & D Directory listing over 50 different projects, will be productive.

The shift in the timing of the adoption of the new Convention has delayed, to some extent, the implementation of the current phase. However, this has also created an opportunity for GloBallast to further enhance its effectiveness and to undertake advanced strategies to assist developing countries to prepare for the implementation of the Convention. A subsequent phase, covering the period March 2004 to February 2009 is the subject of a Concept Paper, which is submitted for your attention during this meeting. Under agenda item 14 we will introduce the Concept Paper and we will hear comments by the participants. This may be a starting point for the development of a full size GEF Project Document and you are kindly invited to offer your valuable contribution.

Before completing my brief intervention, I would like to praise once again the Country Focal Points, their CFPAs and my colleagues in the PCU for their continuous effort and generous dedication to make this project a success.

Finally, I'd like to thank the Chinese Government for its hospitality and the Maritime Safety Administration for making our stay in Beijing not only effective and productive but also unforgettable.

Thank you for your attention.

Provisional Agenda

Monday 28 Oct: Conference Room, Hotel Asia (GloBallast team only)

Bilateral meetings PCU/Pilot Countries

Tuesday 29 Oct: Conference Room, Hotel Asia (full GPTF - commences 09:00)

Opening Addresses

Administrative matters

1. Adoption of the Agenda
2. PCU Progress Report & Revised Project Implementation Plan.
3. Country Status Reports, progress to date and forthcoming activities.
 - a) Brazil
 - b) China
 - c) India
 - d) Iran
 - e) South Africa
 - f) Ukraine
4. Mid-term Evaluation Report
5. Risk Assessment.

Wednesday 30 Oct: Conference Room, Hotel Asia (full GPTF - commences 09:00).

6. NGO/Industry information papers regarding involvement in the ballast water issue.
7. Information on the proposed IMO/Pilot Countries MoUs
8. Port Baseline Surveys
9. BWM training package
10. Compliance Monitoring & Enforcement
 - a) Ballast Water Sampling
11. Regional Cooperation & Replication
12. Resourcing & Financing
13. TV Documentary
14. GloBallast *Advanced*, Report of the independent evaluators
15. Other business

Briefing Papers and Submissions

Agenda Item 2: PCU Progress Report

For the period of 1 January to 30 October 2002.

General Comments

During the reporting period, the PCU achieved most of the objectives assigned by the 3rd GPTF meeting and outlined in the revised Project Implementation Plan (PIP).

As per the previous year, some activities were delayed due to a number of factors outside of the PCU's control, including:

- Changes in basic assumptions in the design of the programme, in particular shifting by IMO of the likely date for a diplomatic conference to consider the new Convention from 2001 to late 2003/early 2004.
- Internal IMO administrative procedures.
- Limited PCU human resources.
- A massive surge in demand for services from external clients both in developing regions currently covered by the programme and in new regions.

Programme Coordination Unit

Programme Management

The PCU continued to manage the programme in accordance with the set of internal guidelines agreed in 2001.

Operative meetings of the PCU staff were held periodically for workload planning.

The 2nd UNDP/GEF Project Implementation Review (PIR) combined with the 2nd GER Annual Programme Review (APR) was completed in August. It found that progress towards development objectives is excellent, and that the level of achievement of immediate objectives has been in general highly satisfactory.

The external, independent Mid-Term Evaluation (MTE) was completed during August – October and will be reported separately by the consultants under Agenda Item 4.

Human Resources

A temporary Administrative Assistant (Mr Leonard Webster) was engaged to assist with the PCU workload.

The PCU workload remains at excessive levels and further options need to be explored to address this.

Communication, Awareness & Information Clearing House

A new set of two posters was produced and distributed globally, drawing a positive response and significant requests for more copies.

An additional 5,000 copies of the GloBallast brochure 'Stopping the Ballast Water Stowaways' were reprinted due to ongoing demand.

All awareness materials were continued to be made available globally as PDF files on the GloBallast website.

Procurement, cataloguing and archiving of publications for the IMO Library Ballast Water Collection continued to be expanded significantly. This is still achieved using PCU staff resources and there is a need to internalise this function within the IMO library itself.

A further three issues of Ballast Water News were produced (one per quarter), with a global hardcopy circulation of 15,000 plus posting on the GloBallast web site (<http://globallast.imo.org/newsletter>). Requests to be added to the mailing list increased significantly. Significant positive feedback to the newsletter continued to be received from a variety of stakeholders.

The PCU continued to actively procure and distribute reports, publications and other documents on ballast water and invasive marine species to the Country Focal Points in all Pilot Countries, to assist them with building-up in-country information resources.

The Ballast Water Treatment R&D Directory, both in hard copy and the web-based database (<http://globallast.imo.org/research>), underwent a major update, and was published in hard copy.

The GloBallast website under-went a major update, upgrade and expansion to meet the needs of users, including addition of an E-Forum. Use of the E-Forum by Pilot Countries was at a very poor level.

Publication of the GloBallast Monograph Series commenced.

A major exhibit was mounted at the World Summit on Sustainable Development in Johannesburg, thousands of brochures and posters were distributed and several presentations given.

An exhibit was mounted at the GEF International waters Conference in Dalian China and again at the GEF Assembly meeting in Beijing, China.

PCU staff continued to give lectures and presentations at a variety of events.

PCU Travel

During the reporting period, PCU staff undertook significant duty travel in order to fulfil workplan objectives. This included:

- 3rd GPTF, Goa India.
- Lecturing at WMU, Malmo, Sweden.
- Nordic Ballast Water Summit, Oslo, Norway.

- 1st Risk Assessment country visit, Odessa, Ukraine.
- Lecturing at NIOZ, Texel, Netherlands.
- Train-X course development workshop, Montevideo, Uruguay
- IUCN Invasive species Workshop, Gland, Switzerland.
- Offshore Arabia Conference, Muscat, Oman.
- Biocides Review meeting, Michigan, USA.
- Ballast water treatment facility, Miami, USA.
- ROPME Sea Area Regional Conference, Tehran, Iran.
- 2nd Risk Assessment country visit, South Africa.
- World Summit on Sustainable Development, Johannesburg, South Africa.
- NordTest ballast water workshop, Copenhagen, Denmark.
- GEF International Waters Conference, Dalian, China.
- Mediterranean Action Plan invasive aquatic species workshop, Barcelona, Spain.

The PCU continued the policy of inviting CFPs or CFP-As to attend international meetings where this is beneficial. This included the CFP-A for South Africa attending the Train-X course development workshop in Montevideo in April and the CFP for Iran and CFP and CFP-A for China attending the GEF-IW Conference in Beijing in September.

In-country Coordination Arrangements

In-country co-ordination arrangements, including CFPs, CFP-As and CPTFs appear to be functioning effectively. It is now necessary to begin regional replication of these arrangements.

Global Coordination Agreements

The GPTF remains the primary forum for global co-ordination of the programme. Arrangements for the 4th GPTF meeting were completed by the CFP and CFP-A of the host country China, supported by the PCU.

Risk Assessment & Port Baseline Surveys

The Risk Assessment consultancy is progressing well with the 1st round of country visits completed and the second round of country visits under-way. It is hoped to have all in-country work completed by in December 2002 and the reports finalised by February 2003, with a risk assessment wrap-up workshop planned for Australia in early 2003 (subject to sponsorship from Australia). More details are contained in the Briefing Paper for agenda item 5.

With regard to the Port Baseline Surveys, each country needs to complete sample identification, analysis and reporting. The PCU has provided a standard report format to all countries, which should be followed. Draft final reports should be submitted to the PCU by December 2002. An international workshop on invasive aquatic species surveys and monitoring is planned for early 2003. Further details are provided in the Briefing Paper for agenda item 8.

Ballast Water Management Measures

The PCU and the UN Train-Sea-Coast Central Support Unit have initiated development of the training packages based on Train-X methodology. Further details are provided in the Briefing Paper for agenda item 9.

The six Pilot Countries are beginning to implement basic ballast water management measures, as clearly described in the IMO Guidelines (A.868(20)). Further details are provided in the Country Status Reports under agenda item 3.

Compliance, Monitoring and Enforcement

A CME Scoping Study was conducted in the latter half of 2001. No further progress has been made pending developments with the new BW Convention. Further details are provided in the Briefing Paper for agenda item 10.

Legislation and Regulations

The legislative review project is complete, as the final report has been published as part of the GloBallast Monograph Series.

Regional Cooperation and Replication

The I.R. Iran GloBallast team and PCU held the 1st Regional Conference for the ROPME Sea Area. A Regional Action Plan (RAP) was endorsed by all ROPME Sea countries and a high level conference is proposed to early 2003 adopt the RAP.

The Baltic Regional Workshop organized by the PCU and the Estonian Government in October 2001 bore fruit in 2002 with funding being granted by the US State Department for activities in the NE Baltic.

The PCU is now working with the I.R. Iran and the ROPME Secretariat to hold the next Regional Conference in the ROPME Sea Area.

Ad-hoc regional activities have been undertaken for the African, Asia/Pacific, South Asia and South American regions (e.g. presentations at various regional meetings). The Pilot Countries now need to focus more on progressing regional replication.

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

Further details are provided in the Briefing Paper for agenda item 11.

Resources and Financing

In accordance with the Project Implementation Plan (PIP), the PCU has been seeking supplementary sources of support and funds for the programme. At the 3rd GPTF the PCU had secured approximately US\$630,000 worth of additional funding and support-in-kind from the IMO Technical Cooperation Fund, the UN Division of Ocean Affairs and Law of the Sea, the Government of Singapore and the shipping industry. In 2002, the following additional co-financing has been secured to date:

- US\$34,000 from the US State Department for the Eastern Baltic.
- US\$30,000 from the IMO TC Fund for a regional workshop in Africa.
- US\$200,000 from Vela Shipping (Saudi Aramco) for the GloBallast TV Documentary.
- US\$100,000 from the UNDP Film Unit for the GloBallast TV Documentary.
- US\$50,000 from Stolt Nielsen for the GloBallast TV Documentary.

Although not secured, Wallenius Line and Carnival Cruise Line may also each provide US\$100K for the GloBallast TV Documentary.

Further details are provided in the Briefing Paper for agenda item 12.

Project Expenditure and Budget

During the reporting period country expenditure remained significantly under-spent whereas certain budget lines at the global level are now exhausted. The budget allocation for the quarterly newsletter (Ballast Water News) is overspent, due to the increase in size of the publication and to a decision by IMO to commence charging the Programme for the distribution via IMO News. Demand from users also required the re-printing of awareness materials (posters and brochure). The budget allocation for the project mid-term evaluation was exceeded because of the need to visit all the pilot countries to ensure an accurate reflection of the overall implementation. Printing the GloBallast Monograph Series proved to be more complex than expected and incurred additional costs. The Risk Assessment component also required extra funds as a consequence of some changes in the initial time table of the first series of country visits, additional cost for the equipment and costs related to the coordination and assistance provided by the Technical Adviser. The budget allocation for the GPTF meetings was initially calculated for three meetings in London. During the implementation process it became clear that more meetings would be needed the current plan being to hold the fifth and last GPTF meeting at the end of next year in London, at the IMO Headquarters.

As these products and activities are for the benefit of the entire programme, most of the costs have been charged to under spent relevant budget lines (i.e. 21:05, Implement National Communication

Workplans or 21:02, Support to develop and implement National Workplans) and equally shared by all the six Pilot Countries.

It is necessary to emphasize the need for the country teams to re-assess their timetables and expedite the implementation of the in-country activities. It should be noted that at the end of the project any remaining funds will be returned to GEF.

The figures available to date and the estimations made for the end of year 2002 have shown that the planned disbursements were slightly above US\$ 5 million and the actual disbursements approximately US\$ 3.5 million, which gives a timing of disbursement of about 70%, meaning that the project is under spent.

The PCU will provide a more accurate reflection of the project expenditure in March 2003 after receiving the audited figures for year 2002. A final re-phasing of the total budget for the period until February 2004 will be carried out by PCU based on the above information.

GloBallast *Advanced*

The Discussion Paper on GloBallast *Advanced* was presented at the 3rd GPTF and countries were requested to provide comments to the PCU. To date, no comments have been forthcoming. This issue will be discussed in detail under agenda item 14.

Agenda Item 3: Country Status Reports

For the period 1 January to 30 October 2002

Brazil

Human Resources

A new Country Focal Point was assigned in June 2002. Mrs. Regina Elena Crespo Gualda assumed the Secretary for Environmental Quality in Human Settlements (SQA) of the Ministry of Environment (MoE) in place of Mr. Eduardo Sales Novaes.

Communication/Awareness Raising activities

It was carried on the distribution of the three GloBallast posters, translated last year to Portuguese, to government institutions (Brazilian Navy, Ministry of Transport, National Agency of Health Inspection); shipping industry (Petrobras, National Union of Maritime Navigation Companies, Aliança Navigation and Logistics); and several stakeholders.

Lectures were presented at the IX Meeting of Brazilian Society of Phycology (Santa Cruz-ES, March 5) and the Seminar on Port and Environment (Rio de Janeiro, October 2).

Articles were prepared for the Maritime Review (quarterly publication edited by the Directorate of Ports and Coasts) Volume 10 Numbers 1 and 2, regarding GloBallast activities. Articles prepared for the Ballast Water News issues 7 and 8, regarding sampling in Brazilian ports and ballast water discharges hydrodynamics.

A news release was prepared for Brasil News Agency (Science, Technology and Environment section) and interviews were given for the *Estadão* newspaper, *Cultura* TV (the MoE Adviser and the Local Legislative Consultant), and Brasília local radio.

A consultant was contracted to develop a national website. The national has a similar structure than the global website, however it attend basic standards established for the sites hosted in the Ministry of Environment's server. The MoE IT Section is doing final procedures and an approval by PCU is awaited.

A video producer was contracted to develop an awareness video on ballast water problems and GloBallast activities in Brazil. Images were registered at the Ports of Sepetiba and Rio de Janeiro; Itaipu Hydroelectric Plant (golden mussel incrustation problem); Institute Admiral Paulo Moreira of Marine Studies - IEAPM (activities of port biota survey samples fine sorting); M/V Leblon; Guanabara Bay (*Charybdis hellerii* crab); Federal University of Rio de Janeiro (microscopic species identification). A first edition was already presented to the MoE. After the script receives final approval it will be translated to the English language version of the video.

The Ministry of Environment is preparing to start in November a poster concourse regarding BWM and introduced species as way to raise knowledge and perception about those issues, and at the same time get designs for new awareness material. The concourse details were already approved by the MoE Juridical Section.

CFP Travel

The MoE officer designated to accompany the Programme undertake the following travels:

- Take part of the coordination meeting for the ballast water risk assessment 1st visit. Discuss aspects of national positions regarding the TSC workshop in Montevideo (Rio de Janeiro).
- Take part of meeting regarding the Convention on Ballast Water Management. Define details of the website development (Rio de Janeiro).
- Take part of meeting concerning strategic and conceptual particularities of the Convention on Ballast Water Management. Supervise the ballast water risk assessment 2nd visit (Rio de Janeiro).
- Take part of meeting with the mid-term evaluation consultant (Rio de Janeiro).
- Attend the MEPC48 and the intersectional meetings (London).

In-Country Coordination Arrangements

Although there is no formal CPTF established until now, several stakeholders are involved with the Programme, taking part at the workshops held by the GloBallast (National Workplan, Communication Workplan, Risk Assessment training), contributing to the project as needed. The Lead Agency did not judge a CPTF as necessary until now. However, there are now matters which consideration in an ambit of a Task Force could help the discussion process. Thus, a 1st CPTF meeting will be convened in October 22.

Global Coordination Arrangements

The project coordination in Brazil did not developed GPTF related activities between the meetings. During 25th London Convention Scientific Group Meeting, held in Jamaica in May/June 2002, there was opportunity to meet the South Africa's CFP and discuss certain aspects of the GloBallast implementation.

The translation to Portuguese of the three GloBallast posters' texts was sent to the South Africa CFP-A in order to help with an eventual regional cooperation with Portuguese speaking African countries.

Risk Assessment

A group of consultants led by URS Australia Pty Ltd, with the support of Brazilian technicians, is developing the ballast water risk assessment for the port of Sepetiba. The study/training was developed along 15 days, in two phases, both in Rio de Janeiro. The 1st stage took place between April 15 to 19, and the 2nd occur between August 26 to 30 and September 2 to 6.

The organisation of both visits was conduct by MoE; determining the strategy, selecting participants; and making venue viable. The Environmental Engineering State Foundation (FEEMA) provided a training room at it's headquarter, with multimedia equipment (data projector, video and TV) appropriate for the activities development.

The MoE ask government and academic institutions, involved with the Project, for representatives nomination according to the tasks planned for three groups ("A" - port mapping data, "B" - port shipping records, and "C" - port environment and risk species data). The following institutions sent

representatives: Admiral Paulo Moreira Institute for Marine Studies (IEAPM); Biology Institute of the Federal University of Rio de Janeiro (UFRJ); Environmental Engineering State Foundation (FEEMA); Federal University of Paraná (UFPR); National Agency for Health Inspection (ANVISA); Rio de Janeiro Port Authority (CDRJ); and University of Itajaí Valley (UNIVALI).

The CFP-A co-ordinate the activities, under guidance from the MoE, assuring effective communications between these groups and among all project counterparts.

Each of these institutions collaborates with data collation. CDRJ prepared a database with the “pre-BW reporting form” shipping data from 1998 to 2000. ANVISA provided the BW reporting forms from the period of second semester of 2000 to first semester of 2002. FEEMA made available a comprehensive project developed in 1997 for the Sepetiba Bay watershed, in which the entire bay (305km²) and basin (2.654km²) areas were already mapped, containing several layers (coastline, land use, roads, rivers, etc). The counterparts of group “C” compiled existing information on port environmental data and risk species as much as possible.

The ballast water risk assessment system, composed by several databases and GIS port and world bioregions map, is still under development. Brazil was the second country attended in the URS consultants’ second round of visits. New information (mainly regarding aquatic species and port environmental data) and system improvements are being added while consultants pass through other pilot countries. Thus, after the six pilot countries were attended the system will be completed and it is expected a consultant visit in order to update the databases and graphic user interfaces.

Port Baseline Surveys

The compilation of existing information and previous studies on the distribution of biota (microorganisms, phytoplankton, zooplankton ichthyoplankton, phytobenthos, zoobenthos (hard and unconsolidated substrates and nekton) in the port, including composition, abundance and space-time distribution of the biota in the study area was concluded. The port biota survey Coordinator is editing the report.

A group of 12 students, coordinated by 8 academic experts linked to diverse institutions (IEAPM, UFRJ, UFRRJ¹, JBRJ² and USU³) developed the fine sorting of the samples collected during the survey accomplished at Sepetiba Bay in November-December 2001. At the Rio Grande Federal University Foundation (FURG) a researcher is conducting the cyst analysis.

In the next stage the port survey Coordinator will identify, with the support of national taxonomists, cases where species’ identifications are either uncertain or unknown or classified as non-native. For such cases, international taxonomists will be consulted with the purpose of identification and re-analysis of species locally designated as non-native to help avoid cases of redundant species classifications. Coordination from PCU is highly desirable with regard to international marine taxonomists involvement.

No long-term monitoring plan was established until now for the demonstration site.

Ballast Water Management Measures

The National Agency of Health Inspection (ANVISA) enacted a Resolution this year that established as mandatory the presentation of the Ballast Water Reporting Form defined at Resolution A.868(20) from IMO. These requirements to vessels provide information on its ballast water status was included for all ships that request ‘Free-Pratique’.

¹ Rio de Janeiro Federal Rural University

² Rio de Janeiro Botanical Garden

³ Saint Úrsula University

Compliance, Monitoring and Enforcement

The component on Compliance, Monitoring and Enforcement did not start in Brazil as agreed in the 3rd GPTF. In that meeting it was stated that the progress of the new Convention and CME are linked so the activities may need to be re-scheduled to year 2003.

Education/Training activities.

The CFP-A is being supportive to Train-Sea-Coast course developers in the Brazilian unit. National specialists are writing the five modules in charge of TSC-Br (modules 6 to 10). Those modules should be concluded by middle October. The other five modules are under TSC South Africa unit responsibility. The modules are originally written in English and, afterwards, will be translated to Portuguese.

On the next phase, the course developers will adapt the material to TSC standard format, and will prepare the participant and the instructor manuals. The course first offer is expect to the end of 2002.

Legislation and Regulations

Considering that Brazil do not intend to undertake unilateral measures, the legislative review findings will be only considered and/or implemented after the BWM Convention adoption.

Regional Cooperation and Replication

At the 3rd GPTF in Goa Brazil expressed its intended approach to regional coordination and replication. Hold a Conference assembling maritime, port and environmental officials from six countries (Argentina, Chile, Colombia, French Guyana, Peru and Uruguay) in Brasilia.

Some arrangements were initiated with the Ministry of Foreign Affairs in order to define diplomatic issues regarding the organisation of such a meeting. Also, internal contacts at the Ministry of Environment's Secretary of Biodiversity and Forests (SBF) were made. The SBF organise a GISP workshop involving all South American countries just one year ago (October 2001).

Under the "Golden Mussel project" (see Country-specific activities item) Brazil is planning to establish cooperative links with its neighbours Argentina, Paraguay and Uruguay affected by problems caused by the *Limnoperna fortunei* introduction.

Country-specific activities

Under Component 1.B.4, from the National Workplan funding, it was requested support to two projects:

- A study on the "Introduction and Impacts of Golden Mussel, *Limnoperna fortunei* (Dunker, 1857), in Brazil".
- A book on "Ballast water and bioinvasion" in Brazil to be published in Portuguese and English.

Two meetings were held involving representatives from MoE, National Agency of the Waters (ANA) and Pantanal Project to discuss impacts of the golden mussel introduction in the Pantanal extremely sensitive area⁴. There were initial understanding for assuring future sustainability of the 1.B.4

⁴ The word "Pantanal" derives from the word "pantano" (pantano in Spanish, pântano in Portuguese), which generally translates as swamp, marsh, or bog. The Pantanal is an alluvial plain which is situated in the center of the South American continent, south of the Amazon basin and east of the Andes, and which becomes extensively flooded during the rainy season.

“Golden Mussel Project”. Thus, in 2003 MoE, with support from ANA and Pantanal Project, will have conditions of allocating extra resources for accomplishing some activities as seminars and workshops.

Other/Miscellaneous

A national joint initiative from MoE, together with the Brazilian Navy and the Ministry of Transports is promoting, under the Port Environmental Agenda, a National Programme on Environmental Capacity Building (PNCAP) within Brazilian ports. As part of this Programme, the Train-Sea-Coast Brazilian unit was contracted to develop a training package concerning several aspects of port environment management. The course, that have a module on “Introduction to ballast water”, had its first offer for the Paranaguá port related personnel in middle September. The next course is planned to occur at the Rio de Janeiro port, next December.

Last year the Project of Conservation and Sustainable Use of Brazilian Biological Diversity (PROBIO) and the National Fund for the Environment (FNMA) approved a financial support of R\$300,000 (aprox. US\$120,000) for of the project: "Ballast Water: risk assessment, monitoring and management plan of exotic species on Port of Paranaguá" from Federal University of Paraná. The project that involves other institutions as University of Itajaí Valley (UNIVALI), began to receive the resources this year.

The NGO *Agência Costeira* promoted with support from MoE the Coastal Zone Management National Meeting. This three day meeting, held in June, discuss the integration of public and private agents that act in the coastal zone, aiming to unite them and strength participative practices. The ballast water issue was addressed in one of the panels.

**Global Ballast Water Management Programme – Brazil
Country Status Report Summary Table – 2002**

(Only country relevant activities shown – Global activities covered in PCU Status Report)

Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Country Expenditure to date (US\$)
1. Coordination & Management	1.B.1	In Country	Establish Lead Agency & CFP			
	1.B.2	21.03	Support CPTF & CFP Assistant		110,000	44,577.36
	1.B.3	32.05	Hold CPTF Meetings		12,000	0
	1.B.4	21.02	Develop & implement National Workplan		110,000	8,852.01
	1.B.4(x)	21.02	Country specific activities			
2. Communication	2.4	32.07	In-country communication workshops and plan		3,067	3,067
	2.5	21.05	Implement country communication plan.		84,933	15,931.44
3. Risk Assessment	3.1	21.06	Carry out ballast water risk assessments		4,000	918.77
	3.2	21.07	Carry out Port Baseline Surveys		67,000	47,016.88
4. Ballast Water Management Measures	4.1	21.09	Translate / promulgate IMO Guidelines			
	4.2	11.53 32.03 32.04	Assist PCU to develop/deliver BW training package (UN Train-X)		30,000	259.63
	4.3	21.08	Conduct National legislative review.		25,000	25,212.48
	4.5	In Country	Develop National BW management policy, strategy and plan.			
	5.2	42.01	Ballast water sampling equipment		10,000	0
5. Compliance Enforcement & Monitoring	5.3	32.02	In-country CME personnel & training		40,000	0
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.		40,000	0
6. Regional Activities	6.1	16.02	Form RPTFs		10,000	3,272.85
	6.2	32.09	RPTF Meetings & Study Tours		90,000	0
7. Resourcing & Financing	7.1	In Country	Develop and implement in-country arrangements for the long-term, ongoing resourcing and financing of ballast water management activities.		0	0

Note: The activities 1.B.1, 4.1, 4.5, and 7.1 are not included in the National Workplan
The expenditures were accounted up to August 2002.

Summary of monthly expenses by budget line (2002)

Activity	Jan/02	Feb/02	Mar/02	Apr/02	May/02	Jun/02	Jul/02	Ago/02	Sep/02 ⁽³⁾	Oct/02	Nov/02	Dec/02	Total
1.B.2 ⁽¹⁾	1,714.50	-	1,697.66	1,791.64	1,564.07	1,386.74	2,300.85	-	1,012.64	-	-	-	18,588.67
1.B.3	-	598.53	-	5,236.12	79.32	-	838.94	367.66	-	-	-	-	0
1.B.4	-	852.01	-	-	-	-	-	-	-	-	-	-	852.01
2.4	-	-	-	-	-	-	-	-	-	-	-	-	0
2.5	-	1,452.76	-	88.91	-	-	1,621.61	2,636.98	-	-	-	-	5,800.26
3.1	-	-	-	105.85	-	-	-	-	-	-	-	-	105.85
3.2	-	1,054.88	-	-	-	-	1,225.26	1,654.81	-	-	-	-	3,934.95
4.2	-	-	-	-	100.45	-	159.18	-	-	-	-	-	259.63
4.3	-	10,287.98	-	-	-	-	-	-	-	-	-	-	10,287.98
5.2	-	-	-	-	-	-	-	-	-	-	-	-	0
5.3	-	-	-	-	-	-	-	-	-	-	-	-	0
5.4	-	-	-	-	-	-	-	-	-	-	-	-	0
6.1	-	-	-	-	-	-	-	-	-	-	-	-	0
6.2	-	-	-	-	-	-	-	-	-	-	-	-	0
1.C.1 ⁽²⁾	-	12,759.22	-	-	133.98	-	-	-	-	-	-	-	12,893.20
Total	1,714.50	27,005.38	1,697.66	7,222.52	1,877.82	1,386.74	6,145.84	4,659.45	1,012.64	-	-	-	52,722.55

Notes

- (1) The 1st line shows the CFP-A salary that up to January was paid directly by IMO, and from February on began to be withdraw from the imprest account.
- (2) Brazil was asked to pay airfares and DSA complement for attendance at 3rd GPTF meeting from the imprest account. The funding for this activity is not allocated within the National Workplan budget.
- (3) The cashbook of September expenditures was not available at the conclusion of this report.

List of deposits and tax incurred

Date ⁽¹⁾	Deposit Amount (USD\$)	Barclays Bank Tax (USD\$)	Exchange Rate (R\$ / USD\$)	Banco do Brasil Tax (USD\$)	Net Deposit (R\$)
11/01/2001	8,000.00	4.28	1.9510	58.03	15,486.41
30/05/2001	10,000.00	4.34	2.3570	116.00	23,286.36
10/07/2001	22,000.00	4.21	2.4810	50.00	54,447.50
07/11/2001	48,931.20	- - -	2.6090	50.00	127,531.05
Subtotal	88,931.20	12.83	-	274.03	220,751.32
06/02/2002	30,000.00	4.34	2.4070	100.00	71,958.85
21/03/2002	15,464.70	4.29	2.3410	100.00	35,958.72
01/07/2002	22,626.53	4.44	2.8780	- - -	65,106.38
23/08/2002	14,186.05	- - -	3.1080	100.00	43,779.44
	1,568.60				⁽²⁾
	12,300.00				⁽²⁾
Subtotal	96,145.88	13.07	-	300.00	216,803.39
Total	185,077.08	25.90	20.13	574.03	437,554.71

⁽¹⁾ Date of credit in the imprest account⁽²⁾ Those deposits were still not available in the imprest account**Exchange rates used on monthly financial reports**

Year	Month	Rate (R\$/USD\$)
2001	June	2.3041
	July	2.4305
	August	2.5509
	September	2.6705
	October	2.7063
	November	2.5279
	December	2.3196
2002	January	2.4175
	February	2.3474
	March	2.3228
	April	2.3617
	May	2.5212
	June	2.8436
	July	3.4277
	August	3.0215
September	3.8941	

Source: Central Bank of Brasil

China

General Comments

The GloBallast Programme has been implemented successfully in China in accordance with the National Workplan approved by the PCU. While most activities, such as Port Baseline Survey, BW Risk Assessment and the Country-specific activities, are carried out in Dalian, the Demonstration Site, some activities of communication, awareness-raising, legislative promotion and information collection are also carried out in Beijing and other relevant major port cities, including Qinhuangdao, Tianjin, Qingdao, Shanghai and Guangzhou. Considering the big population and merchant fleet of the country, it is very necessary to carry out some of the activities nation-wide.

The goals of the activities have been achieved. The GloBallast Programme in China has achieved more than expected. Proposals from the GloBallast Programme relating ballast water management on board and development of National Regulations for implementing IMO Guidelines are being considered by the Ministry and the shipping industry. A brief introduction of the GloBallast activities in China was also presented at the Environmental Talk between China and USA, which took place in mid August.

A table showing the percentage of completion for the activities is attached to this report.

CFP Office and CPTF

Because of the organisational arrangement of China Maritime Safety Administration, China changed its CFP in June 2002. Mr. Zheng Heping, Deputy Director-General of China MSA has been appointed CFP of GloBallast China. The day-to-day work of the Programme is conducted by the CFP Assistant.

Human resources

The CPTF consists of representatives from relevant authorities and organisations. Some CPTF Members have been transferred to other posts and replaced by new ones. At the 4th CPTF Meeting, changes of members have been confirmed by relevant organisations. The updated list of the China CPTF will be submitted to PCU soon.

Information exchange between CPTF Members has been maintained through telephone, e-mail and fax. Two CPTF Meeting were held in 2002. Because of changes of some members in relevant authorities and organisations, CFP-A sometimes experienced some difficulties in reaching some CPTF Members in time. Although most CPTF Members were very busy with their duties in relevant organisations, they tried their utmost to be present in CPTF Meetings and provide information and assistance so far as they could.

Four consultants from the Marine Environment Monitoring Centre of the State and Dalian Maritime University were used for Ballast Water Risk Assessment (BWRA) and for collection of environmental information.

Travel of CFP and CFP-A

CFP-A co-ordinated the activities under the GloBallast Programme both in Beijing and Dalian, and travelled four times between Beijing and Dalian in April, June, August, and September for conducting BWRA and the Middle Term Evaluation (MTE). CFP-A also travelled to Qingdao and Shanghai for holding the 5th and 6th Communicative Seminars. CFP and CFP-A travelled to Dalian in September and attended the 2nd GEF International water Conference 25-29 September 2002.

Global Coordination Arrangements

CFP and CFP-A co-ordinated in-country preparation for the 4th GPTF Meeting to be held 28-30 September 2002 in Beijing. China MSA will provide financial support for meeting room, one reception and a tour to the Great Wall.

Communication/Awareness Raising activities

A nationwide awareness-raising campaign is the first thing first with a view to implementing the IMO Resolution A.868(20). While most activities are carried out at the demonstration site, a nationwide awareness campaign is very necessary for a country like China. Under the National Workplan, the following activities for awareness raising have been carried out during this reporting period.

- Under the Country's Communication Workplan, a Chinese/English version of IMO Resolution 868(20) was prepared and 6400 copies of the Resolution were printed. Dissemination of the Resolution has been continued in 2002. By now, 5,000 copies have been disseminated free of charge to the shipping industry and relevant organizations nationwide. Most ships of COSCO and other companies have IMO Resolution 868(20) on board now.
- Nationwide awareness raising seminars.



- Under the National Workplan, the 4th, 5th, and 6th Communicative Seminars for education and awareness raising were held respectively in Qinhuangdao, Qingdao and Shanghai. About 200 participants from relevant organizations and companies attended the Seminars. The 7th and 8th Seminars will be held in Fuzhou and Guangzhou in the south of the country at the end of this year or early next year.
- Dissemination of news letters and posters

- The 2nd 4-page Ballast Water News in Chinese was prepared and disseminated at seminars and also as the middle pages of the journal “Transport and Environment Protection” nationwide.
- Opening of the web site
- A web site under the name of “http://globallast-china.org” has been prepared and opened both in Chinese and English.
- A communicative TV film entitled “ Stop Unwanted Stowaways via Ballast Water” was prepared and transmitted by the Central TV nationwide in September.

Risk Assessment

The ballast water risk assessment has been carried out in Dalian. The IMO-contracted Consultants paid 1st visit and 2nd visit in April and September 2002 respectively. To implement this activity, an assessment team was organized and trained by the consultants. Data of 3,200 ballast water reporting forms collected from ships visiting Dalian were keyed in to the database during the time between the two visits of the consultants. In addition, environment information and data of Dalian and the six domestic ports, which have major trade with Dalian were collected and input into assessment software. The 2 visits of the Consultants have been completed successfully.

Port Baseline Surveys

The laboratory work has been carried out and completed by October 2002. The implementing organization – the Ocean Environment Monitoring Center is preparing the final report on this Survey. The Final Report will be available soon. The results of the Dalian Port Baseline Survey were used in the BWRA.



Ballast Water Management Measures

The IMO ballast water reporting form is collected in the 4 major ports at the Bohai Sea. The information requested in the IMO Form has been incorporated in the quarantine declaration. The major shipping companies are developing the ship-specific Ballast Water Management Plan for their fleets.

Compliance, Monitoring and Enforcement

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 available and the training is completed.

Education/Training activities.

While some education has been involved in the communicative and awareness raising activities, training and education will be conducted when the model course is available.

Legislation and Regulations

Based on the Legislative Review completed in 2001, a proposal to include some requirements of ballast water management under the IMO Resolution 868(20) was submitted to the Administration and the proposal is being considered.

Regional Cooperation and Replication

The Regional Workshop and Conference of Ballast Water Management will be held 31 October to 2 November 2002 in Beijing, just after the 4th GPTF Meeting.

Resources and Financing

The Government continued its in-kind support for operation of the CFP Office and activities under the National Workplan, including,

RMB45,000 (about US\$5,500) for 4th GPTF Meeting (meeting rooms, reception and social event)

RMB20,000 (about US\$2,500) for BWRA

RMB30,000 (about US\$3,500) for communicative seminars.

RMB10,000 (about US\$1,200) for CFP Office

Country-specific activities

The Activity 1B4a “Research on the possible carriage of red tide organisms by ships’ ballast water and red tide information providing system to captains” and Activity 1B4c “Research on the impact of chemical treatment of ballast water by using chlorine compounds” were approved by PCU, the budget has been available. The two activities have been started in Dalian.

Summary of Implementation Status of the GloBallast Activities in China

Activity	Status	% of completion
Development of National Workplan and establishment of CPTF	Completed in 2000	100%
Case Study (2.3)	Completed in 2001	100%
Communicative, awareness raising (2.5)	The following has been completed, 1. dissemination of resolution A.868(20)(5000 copies); 2. six communicative seminars (totally 8); 3. 1st and 2nd BW news. 4. Web-site http://globallast-china.org 5. Communicative TV Programme.	70%
Ballast Water Risk Assessment (3.1)	Ongoing (to be completed by end of Sept. 2002)	90%
Port Baseline Survey (3.2)	Ongoing (to be completed by end of Oct. 2002)	85%
Training (professional) (4.2)	Ongoing (waiting for model course)	10%
Legislative Review (4.3)	Completed in Nov.2001	100%
National Ballast Water Management Plan (5.1)	Ongoing	30%
Compliance Monitoring and Enforcement activities, including ballast water sampling.	Ongoing	10%
Regional Cooperation (6.1)	Ongoing, (Regional Workshop and Conference will be held at the end of Oct.2002.)	20%
Country-specific activities under National Workplan, not covered by Global PIP.	1B4a & 1B4b are just started (Budget available in August)	10%

Global Ballast Water Management Programme – China
Country Status Report Summary Table – 2002
 (Only country relevant activities shown – Global activities covered in PCU Status Report)

Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Country Expenditure to date (US\$)
1. Coordination & Management	1.B.1	In Country	Establish Lead Agency & CFP		110,000	41,600
	1.B.2	21.03	Support CPTF & CFP Assistant	Office facility and Daily operation		
	1.B.3	32.05	Hold CPTF Meetings	4 CPTF Meetings have been held	25,000	7,900
	1.B.4	21.02	Develop & implement National Workplan	Completed in 2000.	1,000	850
2. Communication	1.B.4 (x)	21.02	Country specific activities	1B4a and 1B4b are started in August 2002	115,000	27,500
	2.4	32.07	In-country communication workshops and plan.	Completed in 2000.		
3. Risk Assessment	2.5	21.05	Implement country communication plan.	70% of the activities have been completed, including seminars, web site, TV film, and printing materials.	75,000	51,000
	3.1	21.06	Carry out ballast water risk assessments	90% of the activity has been completed. The Consultants will complete the activity in early 2003.	10,300	10,100
3. Risk Assessment	3.2	21.07	Carry out Port Baseline Surveys	90% of the activity has been completed, final report will be available late November 2002.	60,000	55,000
	4.1	21.09	Translate / promulgate IMO Guidelines	5,000 copies of IMO Guidelines in Chinese/English version have been disseminated nationwide.		Included in act.2.5
4. Ballast Water Management Measures	4.2	11.53	Assist PCU to develop/deliver BW training package (UN Train-X)	On-going	30,000	
		32.03				
		32.04				
	4.3	21.08	Conduct National legislative review.	Completed in 2001.	19,400	14,100
5. Compliance Enforcement & Monitoring	4.5	In Country	Develop National BW management policy, strategy and plan.	On-going		
	5.2	42.01	Ballast water sampling equipment	On-going	10,000	
6. Regional Activities	5.3	32.02	In-country CME personnel & training	On-going	30,000	
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.	On-going	50,000	
	6.1	16.02	Form RPTFs	On-going	10,000	
7. Resourcing & Financing	6.2	32.09	RPTF Meetings & Study Tours	Regional Workshop and Conference will be held 31 Oct. – 2 Nov. 2002.	90,000	
	7.1	In Country	Develop and implement in-country arrangements for the long-term, ongoing resourcing and financing of ballast water management activities.	On-going		

India

General Comments

Progress of the project has been well within the time frame of National workplan and communication workplan document.

Regional replication: Communication channel established except Malaysia and Thailand. We have not received any reply yet. PCU may take note of it.

Country specific activities: Though budgetary provisions have been made, further progress yet to be realised due to procedural delays.

CFP Office and administration

The financial position (Imprest account) is functioning smoothly with sufficient balance.

All financial transactions and reporting have been done diligently every month by CFP.

CFP is managing the project as per the NWP and CWP document by coordinating with other institutions and authorities connected with the project.

CFP-A is managing the day-to-day functioning of the office and directly responsible for implementing the communication and awareness raising activities.

Human Resources

Eleven Research fellows and technical assistants have been contracted by NIO and FSI for research activity on port base line survey.

Rambhau Mhalgi Prabodhini has been contracted to carry out implementation of National communication workplan (Gr ii)

Data entry operators were trained by CFP-A for preparing data base for Risk assessment.

Communication/Awareness Raising activities

Awareness presentation was made to Chennai port officials and shipping community.

Overview of the project and the future requirements was presented to Union minister of Shipping at Delhi.

Presentation on ballast water management measures and threats was made to maritime institutes at Delhi and Mumbai.

Awareness raising activities were conducted in the coastal states of Maharashtra and Goa near the pilot sites for fishing community, school & college students and teachers as well as people's representatives.



Following awareness raising material developed indigenously by the various communication groups:

- a) Brochures
- b) Calendar
- c) Posters (English, Hindi and Marathi languages)
- d) Website constructed and will be launched soon.
- e) Documentary film.
- f) Visual aids (colour transparencies)



Press conferences were organised in Goa and Mumbai with senior Gov. authorities which included the Union cabinet minister of Shipping and Goa state minister of Environment.

Several articles on the subject have been published in national and regional news papers and shipping Journals.

CFP Travel

CFP Attended International workshop on Montreal Declaration of Global Programme of Action (GPA) for the protection of the Marine Environment from land based activities at Visakhapatnam, India on 2nd March 2002 and presented Status Report on impact of Shipping on Coastal and Marine Environment.

CFP met with Risk assessment consultant team at National Institute of Oceanography,Goa in March 2002.

CFP organised the 1st R & D seminar which was held at National Institute of Oceanography,Goa in June 2002.

In-Country Coordination

Three CPTF meetings conducted since January 2002.

4th Lead Agency meeting conducted on 15th March 2002.

Meeting was conducted with Union Minister for Shipping on 25th Feb 2002.

Meeting was conducted at pilot port with senior bureaucrats and people's representatives.

Global Coordination

3rd Global Task Force meeting was organised by CFP in Goa (India) in January 2002.

CFP Attended 48th session of MEPC at IMO, London on 7-11th October 2002 and introduced information paper on ballast water project in India.

Risk Assessment

Ballast water Risk assessment activity in India was initiated. A meeting was conducted at National Institute of Oceanography with the PCU consultant on 11-15th March 2002.

Collection of relevant data, digitisation of port maps for GIS, data on shipping patterns and ballast water are in progress.

The second visit of the PCU consultant is scheduled for 2nd week of November 2002. They will demonstrate risk assessment for Mumbai and JNPT.

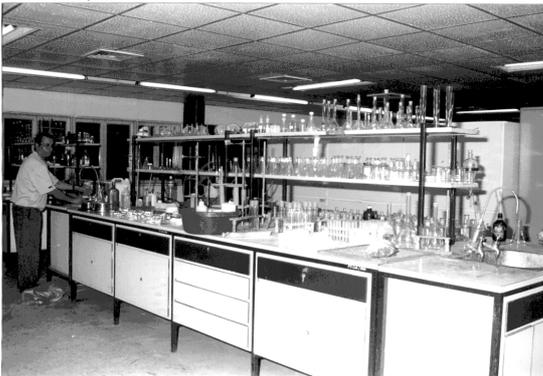
Port Baseline Surveys

Second port base line survey was conducted during April-May 2002.

Interim report for the 1st and 2nd survey submitted to PCU.

Third port base line survey conducted in October 2002.

Final report of the first port base line survey will be submitted by January 2003.



Ballast Water Management Measures

Following Ports are collecting IMO ballast water reporting form from all the vessels carrying ballast water: Mumbai, JNPT, Kolkata, Goa, Cochin, Kandla, Kakinada, Visakhapatnam and Alang.

Voluntary ballast water guidelines are being adopted by Indian ships plying in International waters.

Compliance, Monitoring and Enforcement

This activity will be initiated after the risk assessment activity is completed and guidelines are available for effective monitoring by the port officials. Awaiting PCU's directives.

Education/Training activities.

Voluntary guidelines on ballast water management developed by IMO have been included in the course curriculum for maritime education.

Effective training activities for port officials and seafarers will be initiated after final regulations on ballast water management measures are in place. This activity will be as per the schedule of PCU.

Policy, Legislation and Regulations

Draft legislation prepared by Local Legal Consultant has been submitted to the Govt. authorities.

Workshop on National policy, Legislation and Regulation is proposed to be conducted in 2003 to deliberate on draft legislation.

Regional Cooperation and Replication

Bangladesh, Srilanka, Maldives and Singapore have nominated their CFP for the project replication.

All the relevant material of the project has been forwarded to above-mentioned countries.

First visit on regional replication is scheduled in early 2003.

Resources and Financing

Efforts were made to impress upon Chairmen of all the major ports to allocate specific funds and resources in their budget to replicate activities carried out in pilot ports, However response is not forthcoming.

Propose to initiate a dialogue with industry associations including Confederation of Indian Industries and Indian National Ship owners Association.

Country-specific activities

1st R&D Seminar was conducted in the month of June 2002 at National Institute of Oceanography, Goa.

Recommendations of the seminar have been documented in the proceedings. Copy of the proceedings has been forwarded to all the demonstration sites. It is also available with CFP, India and PCU.

An article on R & D Seminar has been provided to PCU for publication in Ballast Water News.

A general article entitled "Marine Bioinvasion: Concern for ecology and shipping" has been published in the Journal "*Current Science*"

Mid term project evaluation was carried out by Dr David Vousden during September 2002. He met all the CPTF members and appraised himself about the development of the project and appreciated the progress.

Forthcoming Activities

- Technical workshop will be undertaken at Mumbai in the month of December 2002.
- The 2nd round of Awareness raising for the ports will be undertaken in the month of December 2002 with the different capsules of presentation.
- 1st Regional Replication visit will be undertaken in early 2003.
- 1st Workshop on Policy and Legislation proposed to be held in 2003.
- 2nd R & D seminar will be held in 2003.

**Global Ballast Water Management Programme – India
Country Status Report Summary Table – 2002**
(Only country relevant activities shown – Global activities covered in PCU Status Report)

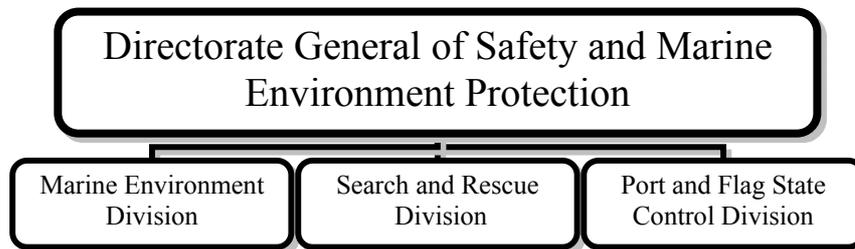
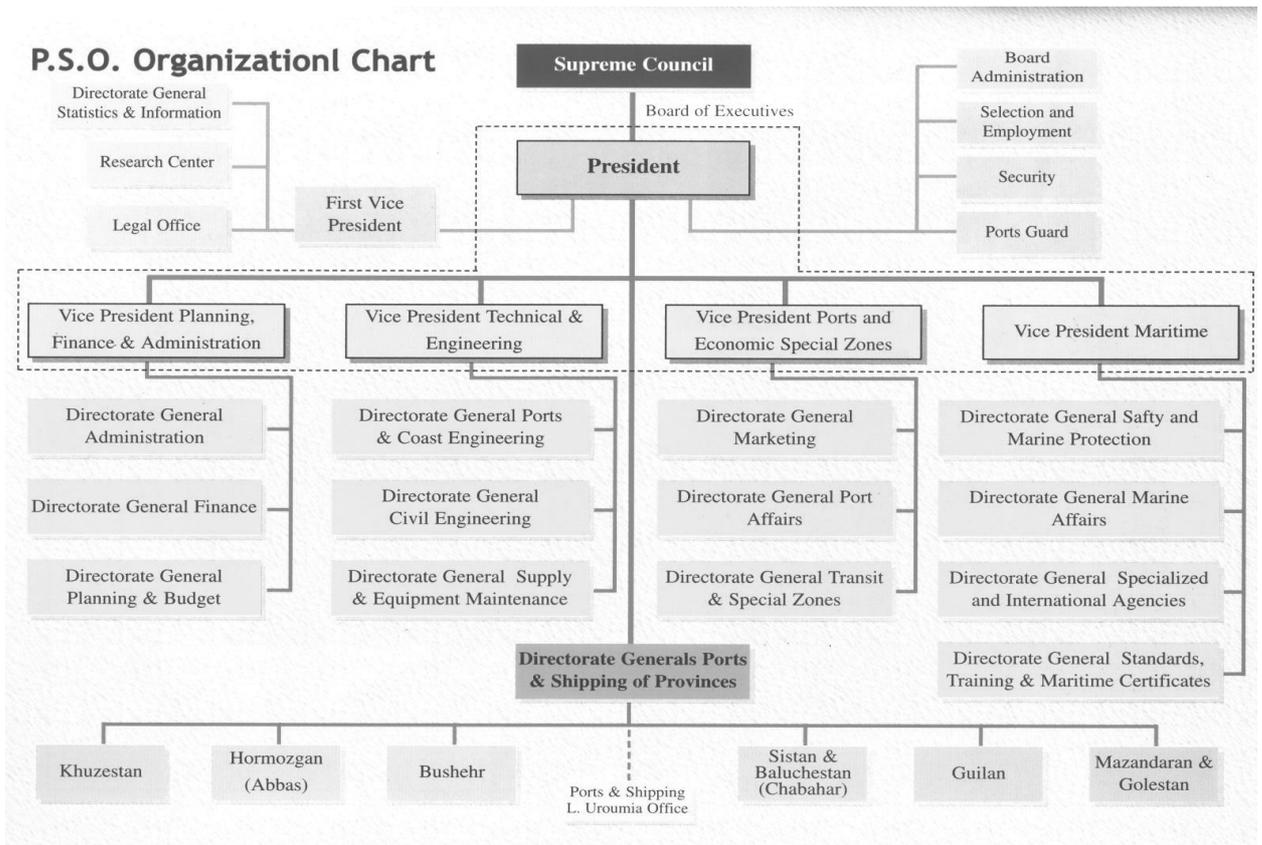
Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Country Expenditure to date (US\$)
1. Coordination & Management	1.B.1	In Country	Establish Lead Agency & CFP			
	1.B.2	21.03	Support CPTF & CFP Assistant	Salary Paid CFP-A, CFP & CFP-A Travel	110,000	57,239
	1.B.3	32.05	Hold CPTF Meetings	3 CPTF Meeting Conducted	30,000	9,520
	1.B.4	21.02	Develop & implement National Workplan	4 Awareness Presentation made.	26,000	12,629
	1.B.4 (x)	21.02	Country specific activities			
2. Communication	2.4	32.07	In-country communication workshops and plan.		20,000	4,203
	2.5	21.05	Implement country communication plan.	NGO's Activities carried out at different level	90,000	45,111
3. Risk Assessment	3.1	21.06	Carry out ballast water risk assessments	Risk Assessment team visited India	3,000	1,308
	3.2	21.07	Carry out Port Baseline Surveys	2 nd Port Base Line Survey conducted	100,000	94,404
4. Ballast Water Management Measures	4.1	21.09	Translate / promulgate IMO Guidelines			
	4.2	11.53 32.03 32.04	Assist PCU to develop/deliver BW training package (UN Train-X)		30,000	Nil
	4.3	21.08	Conduct National legislative review.		25,000	14,872
	4.5	In Country	Develop National BW management policy, strategy and plan.			
5. Compliance Enforcement & Monitoring	5.2	42.01	Ballast water sampling equipment		10,000	Nil
	5.3	32.02	In-country CME personnel & training		40,000	Nil
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.		40,000	38
6. Regional Activities	6.1	16.02	Form RPTFs		10,000	1,872
	6.2	32.09	RPTF Meetings & Study Tours		90,000	Nil
7. Resourcing & Financing	7.1	In Country	Develop and implement in-country arrangements for the long-term, ongoing resourcing and financing of ballast water management activities.			

Islamic Republic of Iran

General Comments

Since March 2001 the date of approval of the National Workplan of GloBallast Programme in Iran by PCU, the progress of the programme towards the achievement of its objectives has been very satisfactory. The programme has established an influential lead agency The Ports and Shipping Organization, which is the National Authority of Ports and Maritime Affairs. PSO has formed CPTF consist of members from all related organizations and is truly an interministerial advisory body of the programme, which has had very important role in the progress of the programme. Awareness raising using the PCU tools and locally designed posters and brochure, GloBallast Web Site, conducting seminars and workshops to introduce GloBallast Programme and its various related activities, publishing articles and media information release on the programme have been among activities which have had significant progress and success in generating interest and attention to invasive marine species issue and ballast water management and control. The final draft of case studies report which throws more light on infestation of Caspian Sea and Persian Gulf as an awareness raising and educating tool has been reviewed by the in-country co-author and awaited publication from IMO. In order to develop effective National Ballast Water Management Plan and Measures, the related activities like Ballast Water Risk Assessment for Khark Is. Port is in progress and is expected to complete by Dec. 02. The results of BWRA and the development of GIS will be the major decisive factor in formulating management measures for the demonstration site. With the objective to develop sustainable national legislation and regulation for ballast water management, a complete review of existing domestic legislation and regulation related to ballast water management was carried out by a local legal consultant and along with a Modal Law developed was submitted to IMO/PCU. In order to assess the existing natural conditions and the presence/absence of introduced marine species and also establish the grounds for long term biological monitoring programmes at the Iranian Ports, a two phase(summer and winter) Port Baseline Survey was conducted by an efficient and experienced local team and more than 80% of samples have been analysed and a complete report of the surveys is expected by the end of 2002. To establish Regional Cooperation in ballast water management and initiate replication of the GloBallast Programme in the region, the potential individuals and organizations in the region were identified and regular communication has commenced since the early 2001. The project staff along with PCU consultants visited all the countries in the region and introduced GloBallast to various stakeholders and initiated support for the Programme. The 1st regional conference on ballast water management and control in ROPME Sea Area was held in Tehran and delegates from all the regional member states participated in the conference and endorsed a regional action plan and adopted a conference resolution in which the regional states are committed to officially adopt and approve the regional action plan, form Regional Task Force to implement the plan and prepare the grounds for complete adherence to the current IMO guidelines [Res. A.868(20)] and the new developing convention. The official adoption of various regional cooperation activities and agreements will take place in a Diplomatic Conference to be held by the end of 2002. The country specific activities which are dependent on the results and out come of other activities particularly the ballast water risk assessment are at initial stages of progress. The commencement of other activities like In-country training and Compliance Monitoring and Enforcement is dependent on the development of generic and adaptable course packages by PCU.

Ports and Shipping Organization (PSO) affiliated to The Ministry of Roads and Transportation is the administrative body responsible for implementation of GloBallast Programme in Iran. The GloBallast Programme is one of the projects of the Department of Safety and Maritime Protection of PSO and the Director General of this department has been appointed as CFP of GloBallast Programme. All the individuals and organizations involved in various activities of the Programme are obliged to submit their reports to CFP who in turn is obliged to submit the over all reports of the programme to Managing Director of PSO. The MD of PSO is responsible for outlining and reporting the main activities of the Programme to the Ministry of Roads and Transportations. The financial affairs of the Programme are among the responsibilities of the Department of Finance of PSO.



CFP Office

The day-to-day management of the programme is carried out by CFP through CFP-A and the staff of the Department of Safety and Maritime Protection of PSO. The day to day management of the programme include communications and networking with PCU, CPTF members, national and international consultants, various individuals and organizations involved in activities of the programme. Regular communication and visits are made by CFP/CFP-A and other staff to the Demonstration Site of the programme (Khark Island Port). The CFP and his office are fully involved in preparation of reports, review of reports received from other parties and other activities such as assisting international consultants. The coordination between various national and international teams involved in the activities of the programme is part of the CFP office day to day management. Arrangements of visa, accommodation, in-country travel and meetings with various stakeholders for international consultants is undertaken by the CFP office. Distribution of awareness raising materials like posters and brochures, conducting interviews and media information release is among the activities of the CFP office.

Human Resources

Since the beginning of the project we have not had any changes in staff and the team which has completely familiarised with the requirements of the project is carrying out the task. So far based on needs and approval of PCU we have been using consultants for activities of the project like development of the national work plan, awareness raising activities, port biota survey, ballast water risk assessment, legislative review and regional cooperation with no difficulties as such.

Communication/Awareness Raising Activities

GloBallast Programme besides using all awareness raising and communication tools developed by PCU, has designed two posters in Persian and Arabic, one brochure in Persian and is working on development of a web-site in English/Persian. A documentary film is made on port baseline survey demonstrating various sampling techniques carried out during the two-phase survey at Khark Island Port. This film is used for awareness raising and training. Various documents on GloBallast Programme and ballast water management has been translated and distributed among decision makers and stakeholders. We have had media information release on GloBallast Programme in general and other activities such as port baseline survey, legislative review and regional cooperation in particular. GloBallast Programme and ballast water management have been presented to various regional organizations like ROPME, RECSO and MEMAC and to stakeholders and decision makers in the ROPME Sea Area Member States. Two papers prepared by the Iranian Globallast team has been accepted in two regional environmental seminars to be held on 16-18 Dec. '02 in Dubai (organized by RECSO) and on 3-5 May '03 in Bahrain (organized by Bahrain Engineers Society).

CFP Travel

Travels undertaken by CFP office since January 2002 are as follows:

1. CFP and CFP-A travelled to India to participate in the 3rd GPTF to present status report of the project, participate in bilateral meetings with PCU/GEF/UNDP representatives and technical sessions of GPTF meeting.
2. CFP-A along with PCU/IMO consultant (Mr. H. Brathaug) travelled to Kuwait and Bahrain and held meetings with ROPME authorities, representatives from Kuwait, Bahrain and Saudi Arabia in May. During the meetings GloBallast Programme was presented, proposed Regional Action Plan for ballast water management in the ROPME Sea Area was presented and discussed, and various stakeholders were invited to participate in the 1st Regional Conference on Management Of Ballast Water in the ROPME Sea Area. The purpose of the visit was to raise awareness in the region, increase adherence to IMO guidelines Res. A.868(20), develop support for new IMO Convention, present the proposed regional action plan for management of ballast water and initiate formation of Regional Task Force for implementation of the plan.
3. Mr. Ahmad Parhizi a member of Iranian GloBallast Project Team and CPTF coordinator along with PCU/IMO consultant (Mr. O. Khalimonov) travelled to Oman and Qatar and held meetings with representatives from these regional member states in May. During the meetings GloBallast Programme, proposed regional action plan were presented and discussed. Various stakeholders were invited to participate in the 1st Regional Conference on Management of ballast Water in RSA. As mentioned in the previous case the purpose of this visit was to raise awareness in the region, increase adherence to IMO guidelines Res. A.868(20), develop support for new IMO Convention, present the proposed regional action plan and initiate formation of Regional Task Force for implementation of the plan.
4. Mr. A. Parhizi the CPTF coordinator travelled to IMO in October to participate in the inter-sessional meeting of ballast water working group.

In-Country Coordination Arrangements

Since January 2002 two (6th & 7th) CPTF meetings were held and as in other meetings the progress of the programme was presented and plans for forthcoming activities were discussed and the members approval obtained. The 6th meeting which was held in June was focused on the regional activities of the programme, the agenda for the 1st Regional Conference on Ballast Water Management, the proposed Regional Action Plan and technical papers which were to be presented at the Conference like National Workplan, the Port Baseline Survey, Ballast Water Risk Assessment and Legislative Review were presented and discussed. The 7th meeting which was held in September was focused on the draft ballast water management Convention of IMO. The results of several meetings held by the National MEPC was presented and after detail discussions the final comments on the draft of the Convention were prepared.

Global Coordination Arrangements

The Iranian GloBallast Team representatives have participated in all the three GPTF meets held up to date. As in others prior to the 3rd GPTF meet (held in January 2002) a complete status report of the programme in Iran were prepared based on the progress report received from various teams involved in the activities of the programme. The status report were discussed and finalized at the CPTF meet. Based on the National Workplan and time line of various activities a report was prepared on the forthcoming tasks of the programme, discussed in the CPTF meet and finalized for presentation at the GPTF. Based on discussions in CPTF and with teams involved in various activities points to be discussed at the bilateral meeting of GPTF were prepared. The agenda items of the 3rd GPTF were reviewed and discussed in the CPTF meeting and the comments on each item were finalized. Based on the proceedings of the three days GPTF meet a complete report was prepared for CPTF.

Risk Assessment

IMO standard Ballast Water Reporting Forms are collected on daily basis at Khark Island Port (the demonstration site) as an ongoing activity. This activity is conducted with the assistance from a consultant team of PCU. The first visit of PCU/IMO consultant team was in May '02. In the logistic Meetings with the Globalst Team the logistical requirements of the 1st visit, including travel to Khark Island, training locations, composition of the counterparts, visual equipment and computer needs, were discussed and confirmed. In the introductory meeting Power point presentation by Dr. Hilliard on Risk Assessment Project – (a) procedures selected for the 'project standard' method of the 'First-Pass' Risk Assessment for each demonstration sites; (b) objectives and activities required to achieve the BWRA; and (c) the grouping of tasks into the six main activities were carried out. Dr. Robert Hilliard confirmed that the in-country counterparts need to form three Groups for collating the three different types of data required for the risk assessment. The port visit to Khark Island (including internal air travel) was undertaken between 1800 Sunday 5 May and 0130 Tuesday 7 May. This was a successful inspection visit, attended by CFP-A, National GloBallast staff and PCU Consultants. Port shipping records were inspected, and some of these were subsequently photocopied for use at the PSO offices in Tehran. A meeting was then held with the Harbor Master/Chief Pilot, to confirm anchorage areas, trading patterns to and from Khark Island for both intra- and extra-RSA voyages, pilotage/draft requirements, de-ballasting practices and de-ballasting locations. Inter-tidal habitat inspections were made by boat and car, the boat inspection including a complete circumnavigation of the island. A 45 minute VHS video and about 20 color 35 mm shots were obtained to help record the various habitats and coastal features. The data collation tasks for Groups A,B,C are undertaken between the 1st and 2nd Visits of the PCU Consultants team and these were agreed during the End of Visit Meeting held at PSO Office. Following a round table discussion of the amount of data collation work required for (a) the 3 year ACCESS BW database, (b) the environmental data collation from important source ports, (c) the regional Risk Species data collation requirements, and (d) the NCC timetable for completing the Khark Island electronic port chart (3 months), the CFP and CFP-A confirmed that the 2nd visit should be planned for Dec. 2002.

Since the first visit all the three groups have been carrying out their tasks which include:

Group A

Group A Leader is monitoring progress of the electronic Khark Island Port Chart with NCC, and has acquired aerial photographs of Kharg Island. Other members have completed the Arcview Tutorial, as provided in the ArcView documentation manuals and example files. A scan of the Kharg Island section from a clean, new Iranian Nautical Chart No. 11 (Jazireh-Ye Khark to Ganaveh) at 300 dpi needs to be done. This will be put into Arcview by the PSO Group A team.

Group B

A copy of the Meridian Access Database was installed on the second computer provided by PSO, and a temporary copy of the Lloyds Ship Register was also installed. A purpose-written Excel spreadsheet for estimating BW discharge volumes was also copied onto this machine for use by Group B during and after the 1st visit. All Group B counterparts gained a good understanding of the ballast water reporting concepts and are proficient in using additional databases for inputs, including the Lloyd's Register for confirming vessel details and DWT, and the Excel spreadsheet for estimating BW discharge volumes. A file of completed Ballast Water Reporting Forms (BWRF) was provided by Group B leader, which covered the periods April 2000 to March 2001 (excluding June 2000) and for September and October 2001. These forms were initially sorted by ballast water source country and port then entered into the Access Data Base. These forms were subsequently analysed for data accuracy and completeness with the results produced in table form. The Khark Island port arrival records for April and May 2000 were cross-referenced with the completed BWRF's for this period. 140 ship visits were recorded as opposed to 85 BWRF's, of the remainder 25 visits were by shuttle tanker (Bandar Abbas - Khark Island - Bandar Abbas), and the remainder were VLCCs which had not completed the BWRFs (missing and incorrect data entries). A preliminary analysis of BW Forms covering 12 months for a 16 month period showed which were the frequent last ports of call. From PSO knowledge of the trade to Khark Island, it could be identified that the most important BW source ports included Bandar Abbas, Singapore, plus ports in Japan, Korea, Egypt and a refinery port in Kuwait. It was agreed that the gaps can be adequately filled by adding visit information from (i) the comprehensive shipping data held at the PSO office at Khark Island, (ii), interpreting the amount BW remaining on board of each arriving vessel (i.e. from the vessel type, last port of call, engagement in liner trade and DWT), and (iii) using the Excel spreadsheet to estimate BW discharges. The PSO Officer at Khark Island who is responsible for collecting BW Reporting forms has received training and assistance so as to ensure that all visiting ships complete the BWRF fully and correctly. A three year set of BW records, covering all ship visits from April 1999 to present, was agreed as suitable for the data entries into the Access database. It was noted that data input, gap-filling and checking will require some detective work and be time consuming, but that it could be completed by Group B counterparts working in PSO Tehran and Khark Island offices by December.

- (a) Port records for the period March 2000 to December 2001 are entered on the Excel spreadsheet provided by PCU Consultants. Approximately 814 , including use of the Lloyds Shipping Register CD-ROM and port records held at Khark Island PSO office.
- (b) Due to the number of missing vessels identified in the 1st Visit survey of the April-May 2000 data, all port records for the period March 2000 to December 2001 were cross-checked against the BWRF's received for this period.

Group C

Environmental Data Collation: The required environmental parameters for the Environmental Similarity Analysis were reviewed and discussed. For each important source or destination port identified for Khark Island by Group B, the following data sources are collected:

- An original or clear copy of the nautical chart showing the port and its approaches;
- Government monthly statistics on rainfall and max and min air temps;

- An atlas (or topographic map) showing the location and size of the nearest significant river; and
- Water temperature and salinity data for the two main seasons of the year (winter/summer or dry/wet)

Country	Port
Egypt	Ain Sukhna
Greece	Elefsis
	Pachi
India	Cochin
(in coop. With	Jamnagar
CFP India)	New Mangalore
	Sikka
Iran	B.Abbas
	B.I.K
	Sirri Island
Kuwait	Mina Al Ahmadi
Pakistan	Karachi

Country	Port
China	Ningbo
	Qingdao
India	Haldia
(in coop with	Kandla
CFP India)	Mumbai
	Vadinar
Japan	Chiba
	Kawasaki
	Kure
	Mizushima
	Nagoya
	Nagishi
	Oita
	Okinawa
	Sakade
	Tokuyama
	Yokaichi
	Yokohama
Malaysia	Malacca
Netherland	Rotterdam
Philippines	Batangas
	Tabangao
S.Africa	Durban
S.Arabia	Al Jubail
	Ras Al Khafji
	Ras Tanura
S.Korea	Dasan
	Ulsan
	Yosu
Singapore	Singapore
Sri Lanka	Colombo
Taiwan	Kaohsiung

- Dr. Rob Hilliard will lead the environmental similarity analysis work during the 2nd visit.
- The environmental parameters are listed using an Excel Spreadsheet that was supplied to Group C, as this can be read by the PRIMER program directly.

Risk Species List

CFP-A is making all necessary efforts to contact marine biologists at agencies and universities in the ROPME Sea Area to collect available information on introduced species in the RSA, Oman Sea and Red Sea region, and to copy these inputs into a single, regionally-shared file of introduced species. The compiled list will show species categorized as:

- Harmful species,
- Potentially Harmful Species (= Suspected High Risk species),
- Introduced species (= Not harmful; e.g many of the “cosmopolitan” species); and
- Cryptogenic Species (= possibly Introduced species; but status uncertain).

Port Baseline Surveys

The second phase sampling of PBS was conducted on 5th to 13th Feb.02. The sampling was carried out using M/V Mehr of PSO. Through out the sampling operations the sampling teams were based on board M/V Mehr. The sampling team consist of Dr. V. Yavari (CFP-A GloBallast Programme) as the over all coordinator and supervisor, Mr. A .Parhizi (GloBallast Team member from PSO) as the

operation manager, ten member Shahid Chamran University team (included three Ph.Ds, three M.Sc.s and four technical staff) led by Dr. A. Savari the head of the Faculty of Marine Sciences responsible for sampling, sorting, fixing, labeling and storage of the samples and nine Navy dive team (headed by Lieutenant S.A. Mirran) responsible for taking under water quadrates and core samples. Both teams were equipped with all standard equipment required for sampling as per CRIMP protocol and were based on board M/V Mehr of PSO through out the operation. The stored samples were transferred to the Faculty of Marine Sciences for detailed quantitative and qualitative analysis.

Winter Sampling Period (February 2002)

A total of 17 sampling sites were selected around the Khark Island Port. The selection of sites was based on the shipping route, ballast water discharge areas, the dominant water current pattern in the area and position of potential habitats in line of circulation from de-ballasting area. In the selection of sites CRIMP Protocol guidelines were followed. The list of sampling stations and a justification of the sites selected is provided in Table 1. Table 2 provides the sample sites, site codes, scientific priority based on the likelihood of finding introduced species, and sampling method (quantitative or otherwise), with Table 3 providing a breakdown of all the sampling techniques used at each site.

Table 1. Site name, chart number and justification for the Khark Island Port survey sites.

Chart #	Site Name	Justification for site selection
2	T Jetty 2	Area of direct ballast water discharge.
6	T Jetty Causeway 2	Close to area of direct ballast water discharge.
7	OSCI Harbour 1	Close to area of direct ballast water discharge and area of dead water (i.e. very low circulation, high potential for organism settlement).
9	Fisheries Harbour	Area of dead water (i.e. very low circulation, high potential for organism settlement).
10	IPAC Harbour	Close to the T Jetty where direct ballast water discharge occurs and is an area of dead water (i.e. very low circulation, high potential for organism settlement).
11	Petrochemical Terminal	Area of direct ballast water discharge and is also close to the T Jetty where a large amount of ballast water is released.
12	Sea Island Terminal 1	Area of direct ballast water discharge. The majority of the ports ballast water is discharged at this terminal.
16	Petrochemical Buoy	Close to the T Jetty where a large amount of ballast water is released and is thus down current (for part of the tidal cycle) from deballasting operations.
17	Northeast Channel Marker	Potential habitat structure that is down current from shipping berths/deballasting areas for part of the tidal cycle.
18	Northwest Channel Marker	Potential habitat structure that is down current from shipping berths/deballasting areas for part of the tidal cycle.
19	Southwest Channel Marker	Potential habitat structure that is down current from shipping berths/deballasting areas for part of the tidal cycle.
20	Drilling Rig	Potential habitat structure that is down current from shipping berths/deballasting areas for part of the tidal cycle.
21	Khark Island Wreck	Potential habitat for fouling organisms that may be influenced by deballasting at the nearby Sea Island Terminal.
23	Island Channel	Area potentially down current from shipping berths/deballasting areas.
24	Kharku Beach Seine	Control site that may also be affected by ballast water carried on the currents.
30	East Trawl	Potential direct ballast water discharge in this area.
31	West Trawl	Potential direct ballast water discharge in this area.

Table 2. Khark Island Port survey sites, allocated chart number, site code, scientific priority, and sampling method. A quantitative method is replicated and provides a measurable quantity of material (e.g., individuals per m² ± SD). A semi-quantitative method provides a measurable quantity of material but is not replicated (e.g., individuals per m²). *NB: Site codes still require the sample type; replicate number; and depth to be added.

Site Name	Chart #	Site Code	Priority	Method
T Jetty 2	2	IRPGKITJ2	1	Quantitative
T Jetty causeway 2	6	IRPGKITJC2	1	Quantitative
OSCI Harbour 2	8	IRPGKIOSH2	1	Quantitative
Fisheries Harbour	9	IRPGKIFH	1	Quantitative
IPAC Harbour	10	IRPGKIIPH	1	Quantitative
Petrochemical terminal	11	IRPGKIPT	1	Quantitative
Sea Island Terminal 1	12	IRPGKISIT1	1	Quantitative
Petrochemical Buoy	16	IRPGKIPB	1	Semi-Quantitative
Northeast Channel Marker	17	IRPGKINECM	1	Semi-Quantitative
Northwest Channel Marker	18	IRPGKINWCM	1	Semi-Quantitative
Southwest Channel Marker	19	IRPGKISWCM	1	Semi-Quantitative
Drilling Rig	20	IRPGKIDR	1	Semi-Quantitative
Khark Island Wreck	21	IRPGKIW	3	Semi-Quantitative
Island Channel	23	IRPGKIIC	1	Quantitative
Kharku Beach Seine	24	IRPGKuIBS	2	Quantitative
East Trawl	30	IRPGKIET	2	Quantitative
West Trawl	31	IRPGKIWT	2	Quantitative

Table 3. Sample type collected at each Khark Island Port survey site.

Site Name	1	2	3	4	5	6	7	8	9	10	11
T Jetty 2											
T Jetty causeway 2											
OSCI Harbour 1											
Fisheries Harbour											
IPAC Harbour											
Petrochemical terminal											
Sea Island Terminal 1											
Petrochemical Buoy											
Northeast Channel Marker											
Northwest Channel Marker											
Southwest Channel Marker											
Drilling Rig											
Khark Island Wreck											
Island Channel											
Kharku Beach Seine											
East Trawl											
West Trawl											

- 1 = Small core (dinoflagellate cysts)
- 2 = Large core (benthic infauna)
- 3 = 20um plankton net (dinoflagellates/phytoplankton)
- 4 = 100um plankton net (plankton)
- 5 = Traps (crab/shrimp)
- 6 = Qualitative visual surveys
- 7 = Quadrat scraping
- 8 = Photo stills
- 9 = Poison stations (fish)
- 10 = Beach seines (fish)
- 11 = Beam trawl

The analysis of the samples collected during the two phases of Port Baseline Survey is at present in progress at the Faculty of Marine Sciences of Shahid Chamran Universities. Samples of various taxa have been sent to taxonomic experts in Iranian Fisheries Research Organization and Department of Environment. About 80% of samples have been identified. Due to high species diversity there are lot of problems in identification of some of the specimens up to species level and international taxonomic assistance is required in this regard. A complete reference and voucher collection of specimens identified has been established. Based on the format received from PCU the preparation of final report has commenced.

Ballast Water Management Measures

As per the approved National Workplan Iran will develop a National Ballast Water Management Plan using the template developed by the PCU. This activity is included in the forthcoming tasks of the project in 2003. At present the Ballast Water Management Measures are limited to collection of standard IMO Ballast Water Reporting Forms from ships calling on Khark Island Port, Bandar Abbas Port and Bandar Imam Khomeini Port. These information are recorded in ship record books and also entered in to an access data base established for Ballast Water Risk Assessment at Khark Island Port.

Compliance, Monitoring and Enforcement

The PCU is to develop generic and country/port-specific compliance and monitoring systems and support the CPTF of Iran to implement these at the country/port-specific levels and provide training to the Lead Agency (PSO) personnel in compliance enforcement and monitoring. This activity is included in the forthcoming tasks of the project and will commence as soon as CME systems are developed by PCU. At present the Port State Control which functions under PSO (Lead Agency of GloBallast) are instructed to monitor the ballast water record books of the ships and record the information. However, the ballast water management is not mandatory as yet.

In 2001 a questioner was filled and information required by the CME scoping consultant of PCU was provided. A proposal is being prepared for ballast water sampling from ships calling on Khark Island Port.

Education/Training activities.

Generic and adaptable course packages on control and management of ship's ballast water such as the UN Train-X packages developed by PCU/CFP/CPTF, will form a targeted education and training programme for 45 individuals which will include fifteen experts from Maritime Training Centres, fifteen port officers and fifteen administrators in I.R. Iran. These individuals will become the group of instructors that in turn will train ship's masters and crew, administrators and port personnel after the completion of this project. Local adaptation of the course packages will be conducted by an expert hired locally in co-ordination with the course developers. Once these packages are developed and adapted, the local expert and the course developer, with expert advice from the TSCCU and the PCU will deliver the courses at the demonstration site of Khark Island. The initial delivery of the training package will serve as the validation of the course so fellowships are also covered in this. Validated course packages will be sent to training units for subsequent delivery. The CPTF will be responsible for implementing this training thereafter and the PSO will assist in this activity.

The programme will train compliance monitoring and enforcement personnel in the implementation of CME procedures, including use of ballast water sampling equipment. Personnel from PSO will have responsibility for compliance monitoring and enforcement and will receive this training. Details of the training programme and budget break down will be developed later with the guidance from the PCU considering the recommendations of the CME consultant.

The above education and training activities are included in the forthcoming tasks of the programme in 2003.

Legislation and Regulations

To determine whether there is a need to change existing domestic legislation and regulations relating to ballast water management, a review of the existing legislation and regulations based on the protocols and terms of reference developed by World Maritime University (WMU) was carried-out in the Islamic Republic of Iran. To assist with the possible changes for implementation of the IMO voluntary guidelines into the Iranian Legislation the PCU developed standards for the legislative review and draft terms of reference (TOR) using the resources of the WMU. The CPTF identified a local legal expert to review the existing legislation and regulations relating to ballast water. The CPTF assisted the legal expert to undertake the review seeking advice and input from all organizations involved and make recommendations for any developments required. The outcome of this legal review was analysed at an international legal workshop in Nov. 2001 at WMU where recommendations were made to obtain the ideal uniform legal structure to transpose the ballast water guidelines in to legal requirements of I.R. Iran by using worldwide examples from participants at the workshop. These recommendations shall be used as the tools to develop suitable legislation and regulations for the Islamic Republic of Iran.

Regional Cooperation and Replication

An important objective of the GloBallast programme is to establish and support Regional Task Forces to increase regional awareness and co-operation, and eventual replication of the demonstration sites across each region. Given its geographical nature, ecology and shipping patterns the regional approach is critical in the case of the Persian Gulf and Caspian Sea. Accordingly IR of Iran has afforded extremely high priority to regional co-operation and replication. the activities of the Regional Cooperation and Replication commenced by visit ing the neighboring countries bordering the Persian Gulf and Sea of Oman in May '02. CFP-A, Mr. A. Parhizi (CPTF coordinator) along with two senior IMO consultants traveled separately in two groups to the neighboring countries to present GloBallast Programme and raise awareness about the invasive aquatic organisms and related activities of IMO, present a proposed Regional Action Plan for management of ballast water and initiate formation of Regional Project Task Force. In addition to meetings held with related authorities, meetings were held with Regional Organization for Protection of Marine Environment (ROPME) and Regional Clean Sea Organization (RECSO). Following the travel visits and intense communications the 1st Regional Conference on Management of Ballast Water in the ROPME Sea Area was held from 17 to 19 June in Tehran. Delegations from Bahrain, Saudi Arabia, Kuwait, Qatar, Oman and UAE and also delegations from ROPME and RECSO regional organizations attended the Conference which was organized jointly by PCU and Iranian GloBallast. The conference proceeded by presentations provided by GloBallast PCU, GloBallast Iran presented status report of the programme at the Khark Island Port (demonstration site) through four technical sessions, status reports were presented by the participating littoral states, specialist presentations by regional marine scientists and industry experts and major part of the Conference was allotted for discussions on a proposed Regional Action Plan (RAP).

The Objectives of this Regional Action Plan are:

- To enhance the regional cooperation and coordination for protection of the marine environment through the existing international and regional mechanisms;
- To specify agreed set of measures and activities designed for the ROPME Sea Area in order to minimize the transfer of harmful aquatic organisms in ships' ballast water; and
- To facilitate the preparatory process within the ROPME Sea Area for the

- Introduction of new international regulations, procedures and technologies for ballast water management and control;

The Conference adopted a Resolution with recommendations covering the following major points:

- Endorsement of the draft Regional Action Plan.
- ROPME to coordinate activities under RAP.
- The establishment of a Regional task Force.
- Implementation of IMO Resolution A.868(20) within the region.
- Support for the rapid adoption and entry into force of the new international ballast water Convention, being developed by IMO.
- Formal adoption of RAP and formation of RTF through a high level diplomatic meeting by the end of 2002.

Resources and Financing

A vital objective of the programme is to identify and secure opportunities for self-financing of the programme during its life-time and for the sustainable continuation of IMO, global, regional and national efforts to implement IMO ballast water management provisions into the future, beyond the life of the programme. As the programme proceeds the IR of Iran CPTF will seek to identify, evaluate and implement long term in-country re-sourcing and financing arrangements for its National ballast water management programmes. Consideration may be given to a levy on shipping visiting Iranian ports, linked to the legislation and regulations referred to above. This approach has been applied successfully in some jurisdictions already. Consultation with the shipping industry would be required.

Country-specific activities

- The Government of the IR of Iran is of the view that it would be desirable to establish a special bilateral relationship between Iran/Khark Island and a Twin Port or Ports in a developed country which is advanced in the field of ballast water management and is in a position to provide direct technical and other assistance to the IR of Iran. This would supplement the assistance available from the GloBallast programme on a more practical and intensive basis.

Taking into consideration relatively long experience of Australia in Ballast Water Management Measures, this country was identified as highly potential for establishment of Twin Port Concept. Communications are in progress with the aim to secure agreement from this potential twin port country. Official correspondence with Brisbane and Fremantle Ports are in progress and initial agreement to examine and discuss the concept have been obtained. These ports are more interested in discussing a TPC for more potential for mutual-benefits. Exploring a wider and more mutually beneficial TPC with the aim of building improved consultation, collaboration/cooperation in sustainable port trade.

- Implementation of effective ballast water management measures at Khark island (or any port) requires a fundamental understanding of the physical oceanography of the area, in particular current and circulation patterns, tidal flows, and physical environmental parameters such as temperature, salinity and turbidity, including ranges and variations. This is critical to assessing the dispersal of ballast water from de-ballasting areas, the likely settling/establishment points of any species discharged with the ballast water, the likely survivability of introduced species given environmental conditions, the analysis of risk and identification of resources at risk, determining the best locations for biological monitoring

sites and providing information to management for the siting of ballast water discharge areas to minimize the risk of introductions. Given the predominant anti-clockwise current circulation in the Persian Gulf and the close proximity of other coastlines 'downstream' of Kark Island, it may be possible for certain species introduced by ballast water at Kark Island to be transported to and impact upon other areas, including other countries. Understanding physical oceanography is therefore also important in this context. A detailed research plan and budget will be developed with relevant Iranian and international expert and submitted to PCU for review and approval.

Other/Miscellaneous

- Following the devastating infestation of Caspian Sea by Comb Jelly a National Committee for Monitoring and Control of *Mnemiopsis leidyi* has been formed and the Iranian GloBallast Team has been selected as a member of this committee to transfer the experiences gained in the Persian Gulf. This committee which functions directly under the President's Office is inter-ministerial and aims to develop effective measures for control of comb jelly infestation in the Caspian. A substantial budget has been approved for the activities recommended by the committee. At present the committee is focusing on biological control of the invasive aquatic pest. Environmental Impact and Risk Assessment models are under development for introduction of *Bero ovata* a natural predator of comb jelly.
- The Iranian Globallast Programme Team has been participating actively in the National MEPC meetings. The role of GloBallast Team in review of the draft IMO Convention on ballast water management has been significant.

Global Ballast Water Management Programme - I.R. Iran
Country Status Report Summary Table - 2002
 (Only country relevant activities shown - Global activities covered in PCU Status Report)

Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Country Expenditure to date (US\$)
1. Coordination & Management	1.B.1	In Country	Establish Lead Agency & CFP	<ul style="list-style-type: none"> Ports and Shipping Organization is the lead agency. Mr. Hassan Taymourtash, DG Department of Safety and Maritime Protection, Ports and Shipping Organization, is the CFP. 		
	1.B.2	21.03	Support CPTF & CFP Assistant	<ul style="list-style-type: none"> Inter-ministerial CPTF established. Dr. Vahid Yavari is the CFP-A. 	120,958	63,735
	1.B.3	32.05	Hold CPTF Meetings	<ul style="list-style-type: none"> Seven CPTF meetings held. Progress report of activities are presented at the CPTF meetings and approval obtained for future tasks planned. 	27,000	1,539
	1.B.4	21.02	Develop & implement National Workplan	<ul style="list-style-type: none"> National Workplan developed and PCU/IMO approval obtained. Implementation commenced in March 2001. 	102,500	2,525
	1.B.4 (x)	21.02	Country specific activities	<ul style="list-style-type: none"> Australia identified as potential Twin Port Country. Initial agreement of the authorities of Ports of Brisbane and Fremantle to examine and discuss the TCP obtained. Communications to identify potential national and international expert for development of the 3D Hydrodynamic model of Khark Is. Port has commenced. In-country communication plan developed. 	60,000	Nil
	2.4	32.07	In-country communication workshops and plan.		9,042	Nil
2. Communication	2.5	21.05	Implement country communication plan.	<ul style="list-style-type: none"> Distribution of various awareness raising tools developed by PCU at national and regional levels. Presentation of GloBallast programme at national and regional levels is continued. Developed posters and brochure in Persian and Arabic. Organized seminar by the European MARTOB project on ballast water treatment. Various publications and media information release on activities of GloBallast. 	40,000	4,929
3. Risk Assessment	3.1	21.06	Carry out ballast water risk assessments	<ul style="list-style-type: none"> Collection of BWRF at the demonstration site and other major ports is continued. Training on various related activities of ballast water risk assessment were conducted by the Meridian Consultancy Team. Based on the requirements, the collection and recording of data for this activity is in progress. Final Ballast Water Risk Assessment for Khark Is. Port will be conducted with the assistance of the consultant team in Dec. '02. 	7,000	434
	3.2	21.07	Carry out Port Baseline Surveys	<ul style="list-style-type: none"> Two phases of PBS (winter and summer) completed. 32 and 17 sites at Khark Is. were sampled during the first and second phases of survey, respectively. More than 80% progress in the analyses of samples. Preparation of final report commenced. 	66,500	40,504

4. Ballast Water Management Measures	4.1	21.09	Translate / promulgate IMO Guidelines	<ul style="list-style-type: none"> IMO guidelines translated and distributed. The guidelines are partly implemented at the major Iranian Ports. 			
	4.2	11.53 32.03 32.04	Assist PCU to develop/deliver BW training package (JN Train-X)	<ul style="list-style-type: none"> Training packages being developed by PCU. Will implement training based on the developed packages. 	30,000	Nil	
	4.3	21.08	Conduct National legislative review.	<ul style="list-style-type: none"> Complete National legislative review conducted. The report based on the review was presented at the Legislative Workshop held at WMMU. The final report submitted to PCU. 	19,000	15,784	
	4.5	In Country	Develop National BW management policy, strategy and plan.	<ul style="list-style-type: none"> National BW management plan will be developed based on the outcomes of other activities of the programme. 			
5. Compliance Enforcement & Monitoring	5.2	42.01	Ballast water sampling equipment	<ul style="list-style-type: none"> PCU will be supplying standard ballast water sampling equipment. Have commenced preparation of a proposal for ballast water sampling at Khark Is. Port. 	10,000	Nil	
	5.3	32.02	In-country CME personnel & training	<ul style="list-style-type: none"> CME training will be conducted based on packages being developed by PCU. 	65,000	Nil	
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.	<ul style="list-style-type: none"> Port State Control monitors the ballast water record books of ships calling on major Iranian Ports. However, no mandatory regulations are enforced as yet. 	34,000	Nil	
6. Regional Activities	6.1	16.02	Form RPTFs	<ul style="list-style-type: none"> Along with IMO consultant visited all ROPME Member states. Presented GloBallast programme and the proposed Regional action Plan developed for management of ballast water. 	10,000	6,446	
	6.2	32.09	RPTF Meetings & Study Tours	<ul style="list-style-type: none"> Along with IMO consultant travelled to regional states for awareness raising and initiation of RPTF. Conducted the 1st Regional Conference on Management of Ballast Water in the ROPME Sea Area. Official endorsement of RAP and formation of RPTF by the end of 2002. 	73,000	28,040	
7. Resourcing & Financing	7.1	In Country	Develop and implement in-country arrangements for the long-term, ongoing resourcing and financing of ballast water management activities.	<ul style="list-style-type: none"> Development of plan for in-country arrangements for the long-term ongoing resourcing and financing of the programme is considered and in progress by CPTF. 			

South Africa

General Comments

Slow progress on country-specific activities. This is partly due to delays in the process of activity approval from the PCU.

Limited progress on regional replication.

Good progress on national and port-specific ballast water management activities.

CFP Office & Administration

Financial mechanisms (e.g. Imprest account) operational with few problems. Much smoother now with increased balance.

CFP handles management of all financial transactions and reporting.

CFP is managing the National Policy development process (to be assimilated as Departmental policy). This provides the formal interface to the DEA&T/Senior management and to other departments.

CFP-A is managing all other national programme activities, including working with a newly appointed Communications Officer who is responsible for implementing the developed National Communications and Awareness-Raising Plan.

CFP and CFP-A each manage their own day-to-day administrative requirements.

DEA&T continues to provide support for CFP-A in terms of office, fax, phone, stationary, computer support and purchasing assistance.

Human Resources

Communications Officer was contracted to take on implementation of Communications Workplan.

A Legal consultant was contracted to participate in the policy development workshop and synthesize the output into a draft national policy on ballast water management.

A web design consultant continues to work with the CFP-A and Communications Officer to maintain and update the website where necessary.

A graphics designer was contracted to make adjustments to the aquarium display and reproduce it for display at WSSD. The same designer was contracted to put together the design for the new national programme poster.

Two students were contracted to perform data entry requirements in preparation for the ballast water risk assessment activity.

Communication/Awareness Raising activities

Website developed and online

New national GloBallast poster designed, printed and circulated

Regional awareness raising presentations given

The PCU approved the terms of reference for the national Communication Officer. This post was advertised and interviews were conducted by the CFP and CFP-A for several prospective applicants. The most qualified applicant was subsequently contracted to the position

WSSD – GloBallast National Display in IMO stand at Waterdome. CFP, CFP-A and Communications Officer in attendance to disseminate programme information and documentation

Several newspaper articles have been written about the programme at times of significant advances (e.g. BWRA, WSSD)

A consultant was contracted to write an article on the programme objectives, which was published in the national journal Biosphere.

The Communications Officer is currently revising the website, and planning a National Coastal Outreach Programme

Marine week activities included a presentation to the Port of Durban by the CFP-A, and participation in the launch party for the GEF funded BCLME Programme, where GloBallast materials were disseminated. The CFP, CFP-A and Communications Officer also attended a Gala banquet hosted by the National Port Authority and DEA&T.

CFP Travel

The CFP attended a workshop of the London Convention in Jamaica where she gave a presentation on the GloBallast Programme.

The CFP held a meeting in Tanzania to discuss the regional objectives of the Programme and to initiate the process of soliciting nominations of representatives to the RPTF.

The CFP-A represented the Programme at a regional meeting of the Global Invasive Species Programme in Zambia, where he delivered a presentation on regional GloBallast objectives.

The CFP-A represented the Programme at the Southern African Marine Science Symposium in Namibia.

The CFP-A travelled to the USA to represent the GloBallast Programme at the Aquatic Invasive Species Conference in Virginia. He continued on to Washington State to meet with the head of the Western Regional Panel, and to tour ballast water management facilities.

In-Country Coordination Arrangements

CPTF meeting held in March. Key area of focus was the need for development of a National Policy on BW management, and the process to be undertaken through GloBallast. This meeting was held immediately preceding the National Policy Development Workshop.

Global Coordination Arrangements

Travelled to Goa, India for participation in GPTF 3 (CFP, CFP-A).

Arrangements made for travel and participation (CFP, CFP-A) in GPTF 4 in Beijing, China

Risk Assessment

The ballast water risk assessment activity for Saldanha Bay was successfully completed in August, 2002. This activity involved two in-country workshops, conducted by the URS consultants from Australia, held three months apart. All appropriate data was gathered and synthesized in advance in

preparation for each workshop. A local team comprising representation from National Ports Authority, CSIR and DEA&T worked with the URS consultants and the CFP-A through the initial one-week workshop and final two-week workshop. This local team was essential in ensuring the data for Saldanha Bay was available in the right format, was entered into the appropriate software, and was processed into the final risk assessment output. This process constituted the training for the local team, such that the capacity now exists in-country for the replication of this activity at other South African ports. The National Ports Authority is already planning the risk assessment for Richard's Bay.

Arranged in advance for the consolidation of all reported BW movement data from Saldanha Bay into the format necessary for the BWRA.

Worked with National Ports Authority (NPA) to ensure use of IMO BW reporting forms at all South African ports as of 1 April 2002.

Port Baseline Surveys

Received final reports from several taxonomists contracted by the programme to analyse specimens collected from the Saldanha Bay port survey. Two taxonomy reports are still outstanding, before the final port survey report can be drafted. These are anticipated within the next three months.

As a result of the survey conducted in Saldanha Bay, a Phytoplankton Identification Manual was produced by the phytoplankton taxonomist contracted by the programme. Funds from this activity were used to publish 50 copies of this manual for national and regional circulation. The PCU has proposed publishing this manual under the GloBallast Monograph series for global distribution. This activity is currently underway.

Worked with NPA to design a proposal for replicate port sampling activities in Richard's Bay and the developing Coega Harbour. NPA has approved the commitment of funds to surveys of both harbours. Planning for the port survey at Coega has begun, which is to be managed by the GloBallast programme.

Ballast Water Management Measures

All ports collecting IMO BW Reporting Form from all vessels carrying BW

All ports requesting voluntary exchange-at-sea of ballast water before local discharge

Port-specific ballast water management regulations developed for new deepwater port of Coega by National Ports Authority in consultation with GloBallast. This document is 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.

Compliance, Monitoring and Enforcement

The CFP conducted a review of existing CME systems and presented a summary of these at the National BW Policy Development Workshop held in Saldanha Bay in March. The workshop participants went on to review details of potential systems for application to the South African context.

Education/Training activities.

The CFP and CFP-A have been involved in negotiations between the local Train-Sea-Coast (TSC) representatives and the PCU. As a result some time has been spent aiding in the management of the TSC course development process.

The CFP-A travelled to Montevideo, Uruguay to participate in a workshop to initiate development (by TSC) of training modules to be delivered to all pilot countries.

Policy, Legislation and Regulations

The National BW Policy Development Workshop was held in Saldanha Bay in March. This workshop involved representation from all major stakeholders. A legal consultant was contracted to participate in the workshop, and subsequently condense all workshop output into a draft policy document. The first draft document was reviewed by the CFP and CFP-A, and subsequent changes were made by the legal consultant. The final Draft document has now been circulated to all workshop attendees for review and comment.

Draft policy for National BW management complete with comprehensive stakeholder input.

The CFP-A travelled to Olympia, Washington where he met with the head of the State BW management authority. He conducted a review of the operational system for Washington State and reported his observations to the PCU. The CFP-A then further researched operational international BW management systems, and delivered a presentation at the National BW Policy Development Workshop demonstrating the pros and cons of each.

Regional Cooperation and Replication

Due to the large number of coastal states on the African continent it has been very difficult to narrow down the specific countries to be included in the 'Region' represented by GloBallast – South Africa. It has been decided by the Programme that while assistance will be given to any African country that requests it, the Programme will focus its efforts on the countries with which strong agreements and affiliations already exist. The Regional Programme Task Force (RPTF) will therefore comprise representation from Angola, Namibia and South Africa on the west coast, and Mozambique, Tanzania, Kenya, Seychelles and Mauritius on the east coast. Two representatives from each country are being invited to sit on the RPTF, one from the Maritime Administration and one from the Environment Ministry.

- The CFP travelled to Tanzania where a presentation on the GloBallast Programme was given at a meeting where the regional programme objectives were described and a call for nominations to the RPTF was delivered.
- The CFP has been in discussions with the government of Kenya regarding representation on the RPTF and a GloBallast meeting to be held in Kenya.
- The CFP-A participated in a regional meeting of the Global Invasive Species Programme held in Zambia. The meetings purpose was to foster regional co-operation. The CFP-A presented GloBallast objectives and followed up the meeting by writing the marine contribution to the regional document to be published. In doing so contact was made and information exchanged throughout the region.
- The CFP-A travelled to a meeting in Namibia where discussions were held with the potential Namibian Representative to the RPTF.
- Planning has been initiated for a port survey to be conducted in Mombassa, Kenya. This will be conducted in conjunction with a regional port survey training workshop.

Resources and Financing

The National Ports Authority (NPA) has committed substantial funds to ongoing efforts to replicate GloBallast port related activities. Funds are being given directly to the Programme to support a

baseline port survey at the developing deepwater port of Coega in late 2002. Similarly, funds have been approved for a port survey of Richard's Bay to be conducted later in 2003.

The risk assessment methodology has also been adopted by NPA. A workshop is being scheduled to plan the first replication of this activity, to be conducted for Richard's Bay. Risk assessments are ultimately to be planned for all five major South African ports. This ongoing expense has been incorporated into NPA's annual budget.

NPA has also developed a port-specific ballast water management plan for Coega. This will be used as a working model during the workshop to develop port-specific regulations for Saldanha Bay.

The NPA now requires the submittal of the IMO Ballast Water reporting forms at all ports. NPA staff have been committed to the collection of these forms, demonstrating an ongoing financial commitment to ballast water management.

Country-specific activities

The proposed Phytoplankton Monitoring project has not been approved by the PCU in its current format. The CFP-A has recently submitted the 3rd version of the proposed terms of reference to the PCU for approval.

Terms of reference for the Pathogen sampling programme and the Aureococcus case study development have also been submitted to the PCU for approval.

The national programme has proposed to help support South African interests in research and development of BW treatment technologies. Instead of conducting this on a case by case basis, as initially planned, the programme is developing a proposal to conduct a treatment technology testing workshop, in collaboration with a PCU-proposed activity which will bring treatment technologies from the U.S. to be tested in South African waters.

Other/Miscellaneous

The South African office participated in the GloBallast Programme mid-term review process. Arrangements were made for the international consultant to meet key members of the CPTF and to undertake extensive discussion with the CFP and CFP-A.

**Global Ballast Water Management Programme – South Africa
Country Status Report Summary Table – 2002**

(Only country relevant activities shown – Global activities covered in PCU Status Report)

Workplan Component	Activity No.	Budget Line	Activity	Planned Country Budget (US\$)	Actual Country Expenditure to date (US\$)	Percentage Expenditure
1. Coordination & Management	1.B.1	In Country	Establish Lead Agency & CFP			
	1.B.2	21.03	Support CPTF & CFP Assistant	101,000	58,204	57.62
	1.B.3	32.05	Hold CPTF Meetings	2,000	78	3.9
	1.B.4	21.02	Develop & implement National Workplan	2,000	1,655	82.8
	1.B.4 (x)	21.02	Country specific activities	123,000	0	0
2. Communication	2.4	32.07	In-country communication workshops and plan	0	0	0
	2.5	21.05	Implement country communication plan.	110,000	22,280	20.3
3. Risk Assessment	3.1	21.06	Carry out ballast water risk assessments	15,000	4,145	27.6
	3.2	21.07	Carry out Port Baseline Surveys	50,000	36,240	72.5
	4.1	21.09	Translate / promulgate IMO Guidelines	0	0	0
4. Ballast Water Management Measures	4.2	11.53	Assist PCU to develop/deliver BW training package (UN Train-X)	0	0	0
	4.3	21.08	Conduct National legislative review.	20,000	16,020	80.1
	4.5	In Country	Develop National BW management policy, strategy and plan.	20,000	6,696	33.5
	5.2	42.01	Ballast water sampling equipment	10,000	0	0
5. Compliance Enforcement & Monitoring	5.3	32.02	In-country CME personnel & training	50,000	0	0
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.	10,000	0	0
6. Regional Activities	6.1	16.02	Form RPTFs	13,000	7,780	59.9
	6.2	32.09	RPTF Meetings & Study Tours	107,000	0	0
7. Resourcing & Financing	7.1	In Country	Develop and implement in-country arrangements for the long-term, ongoing resourcing and financing of ballast water management activities.	3,000	0	0
	Total				636,00	153,098

Ukraine

General Comments

For the reported period the following objectives have been achieved:

In general, there have been made significant progress in achieving two broader objectives of the Programme (adherence to the provisions of current IMO voluntary guidelines on ballast water management has been increased, and preparation for the implementation of the IMO mandatory regime on BW management) by carrying out the following:

- Coordination and management of Odessa DS work were improved through involving additional human resources as in-kind support.
- Communication, education and awareness component of Programme implementation was added by some country-specific activities.
- Risk Assessment is on a final stage.
- 1st Port Baseline Survey will be commenced till December 2002.
- 2nd Port Baseline Survey is done as in-kind support. Data will be processed in laboratories.
- Regional cooperation and replication component is on the second stage.

Ministry of Transport of Ukraine and State Department of Marine and Inland Water Transport give particular attention to ecology safety of shipping. Only for the period from 2001-2002:

- Special Working Group on Ecology Safety of Transport was formed under the chairmanship of the Deputy State Secretary of the Ministry of Transport of Ukraine.
- Special Group to consolidate national and international legislation in the sphere of prevention of environment pollution from ships was convened. In its work it consider the most actual and up-to-date problems of shipping. Special attention was given to the problem of ballast water management and control.
- Based on the proceedings of the Group work, National Juridical Academy and Institute of State and Law prepared two independent conclusions (ecological & legal and scientific & legal) with regard to compliance of national legislation to international standards on marine environment protection, namely based on MARPOL 73/78 and other IMO instruments.

BWRA consultants and Mid-term Evaluation consultant were provided with all necessary support while their visits to Odessa DS.

In general, day-to-day work of the DS is on a proper level. There is a general understanding and support from the government bodies. Awareness of state authorities is rather high and this significantly helps to remove any barriers on Programme implementation on any level.

CFP Office

Lead agency (that is Shipping Safety Inspectorate) has finally moved to another building. Changing physical address doesn't imply to the efficacy and operational work of the DS. Now the office of CFP in Odessa is situated in the downtown of Odessa near the port area and with beautiful view to the port and city.

Human Resources

Due to structural changes central office of Shipping Safety Inspectorate is situated in Kiev (capital of Ukraine). However, this didn't cause significant change in the work of Lead Agency.

For the reported period the most requested consultants were for Communication and awareness activities and translation services. In general, the services of the following consultants were used:

- Communication and awareness rising;
- Translation services;
- Local Risk Assessment consultant.

There were no significant difficulties or problems worth to be indicated here.

Communication/Awareness Raising activities

GloBallast posters (in Ukrainian) were printed.

GloBallast brochure translated into Russian and Ukrainian and will be printed soon.

GloBallast posters (set 2) will be translated and printed.

LLC report translated into Russian.

First set of awareness rising lectures were delivered to Secondary (two schools) and Higher (colleges, institutes and universities) Educational institutions. Second set of lectures is planned for November-December 2002.

Two video (of 30 and 45 min) films are produced. Film one has scientific and popular character and is doubled in English. Film two is for the need of specialists to train Port Baseline Survey team members and has English titles. Both films are available in MPEG 4 and VHS formats.

Scientific and popular film will be shown on national TV channel TET this Wednesday at 20.30 pm in the specialised programme on ecological problems of the Black Sea. Further it will be distributed and shown at national TV, for scientific, student and wide audience. Additionally, both films will be forwarded to regional maritime administrations, various interested regional organizations represented at RPTF.

Odessa GloBallast DS web-site is fully functioning at www.globallast.od.ua . The content of the site is available in three language versions (Eng, Rus, Ukr.).

BWRA lecture translated into Russian and used to train RA team members in Ukraine.

1st version of Black Sea Conference on BW Management and Control materials prepared in Russian and English, edited at PCU and will be published.

BWM plan is under translation and will be used for development of national rules on BWM measures.

GloBallast programme presented at 2nd *Scientific and Practical Conference "Shipping Safety and Effective Shipping Management"* (Feodosia, June 2002).

Report on Odessa GloBallast DS activity presented at the 5th *International Exhibition-Symposium on Shipping, Shipbuilding, Shiprepair and Ports Development "Odessa 2002"*, 15-17 Oct, Odessa. This event was highly appreciated and greeted by the Secretary-General of IMO, Mr. William O'Neil.

Video report (including interviewing of CFP and CFP-A) on progress of Programme implementation in Ukraine is planned for November 2002.

CFP Travel

For the reported time CFP travelled mostly to Kiev. The purposes of these travels were mostly setting up organizational and structural measures regarding Odessa DS and Lead Agency activity connected with ecological questions on marine transport, including work in different working groups, commissions, meeting with specialists and experts, officials from ministries and departments on prevention of marine pollution prevention from ships, ballast water management.

In-Country Co-ordination Arrangements

For the reported time there were no CPTF meetings. All necessary information was delivered to CPTF members during meeting with Risk Assessment consultants and while special meeting with CPTF members regarding NWP activities.

Global Co-ordination Arrangements

GPTF related activities include the processing of GPTF documents and preparation for the participation in GPTF 4 meeting.

Risk Assessment

Initial information on shipping movements in the port of Odessa over the last two years, including where possible the locations of overseas source ports from which ballast water was imported to Odessa was collected and presented in the form of Excel table. Total amount of ballast discharged in Odessa Port for 1999-2001 is as follows:

19.11.99 - 31.12.99 – 30 ships, total ballast volume 421.280 m³;
01.01.00 - 31.12.00 – 175 ships, total ballast volume 4.432.342 m³;
01.01.01 - 31.12.01 – 228 ships, total ballast volume 5.451.751 m³.

This information is presented in Excel database.

Jan 2001 - Aug 2002 – BW reporting forms collected and put into Access database.

Second visit of BWRA consultants is planned for Nov-Dec 2002. This will finalize List of Source ports, Environmental Similarity Analysis and GIS mapping activities.

Mechanism for future electronic registration of BW form is established at the Port of Odessa. Now the time is for other ports of Ukraine to be involved into this system.

Port Baseline Surveys

Second Port Baseline Survey for summer period (warm-water season) was undertaken by Odessa DS (Odessa Branch of the Institute of Biology of Southern Seas - (OB IBSS), and Ukrainian Marine Environment Scientific Centre - UMESC) as in-kind support.

For the present time the following results were achieved:

- laboratory processing of samples taken while summer Port Survey in 2001 is on a final stage;
- Species identification of cysts in the bottom samples is continuing.

From bottom sediments two kinds of Fungi (*Savoryella lignicola* and *Cirrenalia tropicalis*) have been identified as new for the Black Sea environment. They are native to Malaysia, Philippines, Singapore, India, Seychelles, England, Japan and some other regions.

From mycobiota fouling five species weren't identified and may be considered as invasive.

Fauna of marine mites (*Halacaridae: Acari*) was also investigated.

Ichthyological investigations proved wide biodiversity in Odessa port waters. In total 26 fishes were found in August. Two of them (Black Sea salmon - *Salmo trutta labrax* and sea horse *Hippocampus ramulosus*) are in the Red Book of Ukraine.

Researches of fauna biofouling showed that from 19 species 6 are invasive.

Presently we may inform that the following works are carrying out:

- Demonstration Stands based on 1st Port Baseline Survey results are preparing according to CRIMP Protocol for scientific and awareness rising purposes.
- General Port Baseline Report is preparing to be presented to PCU according to CRIMP Protocol and template provided.
- Sorting and conservation of samples from the 2nd Port Survey in Odessa Port is made. Laboratory processing started.

Ballast Water Management Measures

Currently this is the most serious task to be achieved in Ukraine. This requires significant efforts at government level. As it was mentioned awareness and understanding of government bodies are rather high and positive. This gives good grounds to hope that Ukraine will implement provisions from IMO Guidelines soon.

Following the order of State Department of Marine and Inland Water Transport drafts of national legislative acts to implement *voluntary Guidelines for the control and management of ships' ballast water, to minimize the transfer of harmful aquatic organisms and pathogens adopted by the IMO Assembly in 1997, by Resolution A.868(20)* were prepared. They include collecting and processing procedures of BW information from ships (BW forms) and BW Management Plan;

Procedures for collection and processing of BW information from ships (BW Forms) entering ports of Ukraine were developed and entered into force by the Order of State Department of Marine and Inland Water Transport № 62 from 11 March, 2001. This made obligatory for Harbour Masters of ports of Ukraine to present yearly BW reports to the Shipping Safety Inspectorate.

Proposals on organization of BW monitoring in ports of Ukraine were developed and included into the National Programme of improvement of State System of Shipping Safety approved by the Decree of the Cabinet of Ministers of Ukraine № 96 from January 28, 2002;

Chapter "Ships' BW management and control" was developed and added to the new version of National Guidelines on prevention of pollution from ships, which will be entered into force by the Ministry of Transport of Ukraine.

Compliance, Monitoring and Enforcement

This activity is mostly depending on those recommendations, which we hope to obtain from CME consultants and PCU.

Education/Training activities

Basically, Education and Training activities are part of awareness rising component and were covered in above. Just to note, typical lectures developed and reported earlier were tested and proved while lecturing work and now are passed to Higher Marine Educational Institutions to be included into educational and training programmes for students and specialists.

Legislation and Regulations

LLC Report was translated into Russian to be used for the need of CPTF members.

LLC of Ukraine was involved by the Lead Agency into activities regarding environmental expertise of legal acts on BW issue. This was done based on existing practice on BWM taken from world practice.

Now we almost form a group of legal experts for the final development of proposals to enhance national legislation on ships' BW management and control.

Regional Co-operation and Replication

As you may remember, 1st *Black Sea Conference on BWM and Control* was held in Odessa almost a year ago. Unfortunately, materials from this event were published only recently. However, this was done in two language versions (English and Russian).

Odessa GloBallast DS has applied for observer status at Istanbul Commission of Convention on Protection of the Black Sea, 1992. Rules of Procedure regarding obtaining observer status by Odessa DS at Istanbul Commission obtained. Originally, visit to Istanbul was planned for August this year but due to structural reform at the Lead Agency this activity is delayed.

Country-specific activities

- GloBallast programme will be presented at annual International Symposium "*Ecological Problems of the Black Sea*" (Odessa, 31 Oct-2 Nov 2002).
- GloBallast programme presented at the 2nd *Scientific and Practical Conference "Shipping Safety and effective shipping management"* (Feodosia, Ukraine, June 2002).
- Report on Odessa GloBallast DS activity presented at the 5th *International Exhibition-Symposium on Shipping, Shipbuilding, Shiprepair and Ports Development "Odessa 2002"*, 15-17 Oct, Odessa. This event was highly appreciated and greeted by the Secretary-General of IMO, Mr. William O'Neil.
- Two video films produced. Their details were mentioned in above.
- Project on Electronic Satellite Monitoring of BW change onboard was presented by Capt. Alexandr Sagaydak at International Workshop (London, April 2002). Contacts with this developer established. Relevant material published in BW News (issue 8).

Other/Miscellaneous

Other activities include:

Preparation of amendments to NWP of Ukraine. This demanded significant resources and time form CFP and CFP-A.

**Global Ballast Water Management Programme – Ukraine
Country Status Report Summary Table – 2002**

(Only country relevant activities shown – Global activities covered in PCU Status Report)

Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Expenditure to date (US\$)
1. Coordination & Management	1.B.1	In Country	Establish Lead Agency & CFP	Lead Agency and CFP office has moved to another building.	In-kind 15,000	In-kind 10,000
	1.B.2	21.03	Support CPTF & CFP Assistant	CFP-A salary and travel.	100,000 In-kind 160,000	60,325 In-kind 90,000
	1.B.3	32.05	Hold CPTF Meetings	No CPTF meeting held for the reported time. Four of five CPTF meetings during 2000-2001 have been covered by Ukraine as in-kind support.	30,000 In-kind 10,000	284 In-kind 11,886
	1.B.4	21.02	Develop & implement National Workplan	NWP has been amended according to GPTF 3 recommendations.	130,000 In-kind 50,000	40,035 In-kind 10,000
	1.B.4 (x)	21.02	Country specific activities	Procedures for collection and processing of BW information from ships (BW Forms) entering ports of Ukraine were developed and entered into force by the <i>Order of State Department of Marine and Inland Water Transport № 62 from 11 March, 2001</i> . Harbour Masters of ports of Ukraine to present yearly BW reports to the Shipping Safety Inspectorate. Drafts of national legislative acts to implement <i>Resolution A.868(20)</i> prepared. Proposals on organization of BW monitoring in ports of Ukraine developed and included into the <i>National Programme of improvement of State System of Shipping Safety</i> approved by the Decree of the Cabinet of Ministers of Ukraine № 96 from January 28, 2002. Chapter "Ships' BW management and control" was developed and added to the new version of <i>National Guidelines on prevention of pollution from ships</i> . GloBallast programme will be presented at annual International Symposium "Ecological Problems of the Black Sea" (Odessa, 31 Oct-2 Nov 2002). GloBallast programme presented at 2 nd Scientific and Practical Conference "Shipping Safety and Effective Shipping Management" (Feodosia, June 2002). Project on Electronic Satellite Monitoring of BW exchange onboard was presented by Capt. Alexandr Sagaydak at International Workshop (London, April 2002). Contacts with this developer established. Relevant material published in BW News (issue 8).	30	

Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Expenditure to date (US\$)
2. Communication	2.4	32.07	In-country communication workshops and plan.	No communication workshops held. To be held in 2003. National Communication Workplan developed as in-kind support.	In-kind 20,000	In-kind 20,000
	2.5	21.05	Implement country communication plan.	TV documentary (two films) produced. Scientific and popular film will be shown on national TV channel TET this Wednesday at 20.30 pm in the specialised programme on ecological problems of the Black Sea.	78,666 In-kind 94,000	11,738 In-kind 21,000
3. Risk Assessment	3.1	21.06	Carry out ballast water risk assessments	Initial information on shipping movements in the port of Odessa over the last two years was collected and presented in the form of Excel table. Jan 2001 - Jul 2002 - BW reporting forms collected and put into Access database. Second visit of BWRA consultants is planned for Nov-Dec 2002 to finalize List of Source Ports, Environmental Similarity Analysis and GIS mapping activities. Mechanism for future electronic registration of BW form is established at the Port of Odessa. Other ports of Ukraine to be involved into this system.	7,667 In-kind 10,000	6,375 In-kind 8,000
	3.2	21.07	Carry out Port Baseline Surveys	1 st Port Baseline Survey Second Port Baseline Survey is under run.	50,000 In-kind 19,000	20,260 In-kind 19,000
4. Ballast Water Management Measures	4.1	21.09	Translate / promulgate IMO Guidelines	Russian version of IMO Guidelines to be re-printed and disseminated. Ukrainian version is translated and will be published and disseminated.	3,667	200
	4.2	11.53 32.03 32.04	Assist PCU to develop/deliver BW training package (UN Train-X)	No information.		
	4.3	21.08	Conduct National legislative review.	Review of national legislative was conducted by LLC and presented at Malmo Workshop.	25,000	15,545
	4.5	In Country	Develop National BW management policy, strategy and plan.			
	5.2	42.01	Ballast water sampling equipment			
5. Compliance Enforcement & Monitoring	5.3	32.02	In-country CME personnel & training	Waiting for the PCU.		
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.	Waiting for the PCU.		

Workplan Component	Activity No.	Budget Line	Activity	Progress to Date (brief description)	Planned Country Budget (US\$)	Actual Expenditure to date (US\$)
6. Regional Activities	6.1	16.02	Form RPTFs	Regional travels of CFP-A to form RPTF.	10,000	9,326
	6.2	32.09	RPTF Meetings & Study Tours	1 st Black Sea Conference on BWM and Control held in Oct. 2001. Odessa DS to obtain observer status at Istanbul Commission.	90,000	18,514
7. Resourcing & Financing	7.1	In Country	Develop and implement in-country arrangements for the long-term, ongoing resourcing and financing of ballast water management activities.	The Administration will input the equivalent of USD28,000 to organize a GloBallast Donor conference for Black Sea countries.	In-kind 28,000	nil

Agenda Item 4: Mid Term Evaluation

General

In accordance with standard procedures, all UNDP-GEF International Waters projects are subject to independent, external evaluation at the project's mid-point.

Accordingly, in August 2002 two independent, external evaluators, Mr Bin Okamura and Dr David Vousden, were contracted to undertake the Mid Term Evaluation (MTE) for the GloBallast Programme. The contracting process was handled externally by the United Nations Office of Project Services (UNOPS).

Terms of Reference

The Terms of Reference for the MTE are attached. A special feature of this MTE was that in addition to reviewing implementation of the current programme, the evaluators were also tasked to review proposals for an advanced phase of the GloBallast Programme.

In undertaking the MTE, the evaluators consulted with all major players and stakeholders in the programme, and visited five of the six Pilot Country. One country visit was unable to be undertaken due to delays in obtaining a visa.

Findings

As this is an independent, external evaluation, the evaluators are invited to present their own report for broad discussion by the GPTF.

Annex 1: Consultants' Terms of Reference for the Mid-term Independent Evaluation of the Global Ballast Water Management Project

Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries (GLO/99/G31)

1 Introduction & 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 and have serious impacts on 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 Ballast Water Convention), to be considered for adoption by an IMO Diplomatic Conference in late 2003, and
- 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) with 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 as 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

Demonstration Site	Pilot Country	Region Represented
Dalian	China	Asia/Pacific
Khark Island	IR Iran	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.

2 Objectives and scope of the mid-term evaluation

The objective of the mid-term evaluation is to enable the Government bodies in the participating countries, IMO, and UNDP-GEF to assess the progress and to take decisions on the future orientation and emphasis as well as to decide on the possible continuation of the project.

According to the decision of the 3rd Global Project Task Force (Goa, India, 16-18 January 2002) a Concept Paper has been developed for the continuation of the project oriented towards regional replication in parallel with the use of the already created national capacities. This proposal will be in line with the spirit of the new Convention to be adopted by the IMO Member States and will promote partnership among Governments, UN agencies, industry representatives and NGOs. The mid-term evaluation mission is expected to review and comment on the Concept Paper and to submit its conclusions and recommendations for the consideration of the 4th GPTF in October 2002.

The evaluation is an activity in the project cycle which 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 is expected to lead to detailed recommendations and lessons learned for the future.

The mid- term evaluation will address the following issues:

Project design

- relevance of project design within the framework of GEF guidelines;
- appropriateness of the project's concept and design to the global concern regarding ships' ballast water transfers;
- contribution of the project to the overall development objective as announced in the Project Document; and
- sustainability of the project;

Project implementation

- general implementation and management of the project in terms of quality of inputs and activities, adherence to workplans and budgets;
- adequacy of management arrangements as well as monitoring and backstopping support given to the project by all parties concerned;

- institutional set-up through the Global Project Task Force and the Country Project Task Forces and the degree to which it has encouraged full involvement of the countries;
- inputs of the Governments of the six Pilot Countries at national and local levels;
- adequacy of the regional mechanisms established for the replication of the activities in the six developing regions;
- effectiveness of the project in removing the barriers to the implementation of ballast water control and management measures, particularly in the areas of: awareness raising, public participation, transfer of knowledge, policy development, regional cooperation and financial sustainability;
- responsiveness of project management to changes in the environment in which the project operates;
- IMO execution modality;
- co-operation among project partners (IMO, UNDP/GEF, Project Coordination Unit, Country Focal Points);

Project impact

- achievements of the project against the original objectives, outputs and activities as detailed in the project document Project Implementation Plan;
- awareness of the participating countries regarding project outputs;
- level of ownership of the project by the participating countries;
- commitment of countries to support the ongoing project and the potential future project phase;
- degree of support given by the Pilot Countries' Governments in integrating the project objectives into their national development programmes and other related projects, and how well the project fits into their national development policy;
- impacts on policy and strategy of countries;
- project impact on enhancing inter-agency and inter-ministerial co-operation in each country and regional cooperation;
- cooperation among international organizations, NGOs and industry representatives;
- cooperation with sister projects in the GEF IW portfolio;
- sustainability of the project's impact.

Continuation of the project

The mid-term evaluation mission will review the Concept Paper on the continuation of the project and provide comments and recommendations. The mission will also recommend the appropriate course of action for securing further support from the GEF.

3 Methodology

The evaluation will consist of three activities:

- studying documents

- field visits and
- interviews with individuals who were either involved in the project, or who have or might be expected to have been impacted by the project.

Studying documents

The evaluator(s) shall familiarize themselves with the project through a review of relevant documents prior to the field visits. These documents include inter alia:

- Project Document
- Project Implementation Plan
- IMO Guidelines for the control and management of ships' ballast water to minimize the transfer of harmful aquatic organisms and pathogens
- Draft International Convention for the Control and Management of ships' Ballast Water and Sediments
- GEF Project Implementation Review (PIR) 2001
- Proceedings of the 1st, 2nd and 3rd GPTF
- Reports of various activities undertaken in the framework of the project
- Concept Paper for the continuation of the project (*GloBallast Advanced*)
- Other project documents which may be found on the website: <http://globallast.imo.org>
- UNDP Handbook for Programme Managers: Results-Oriented Monitoring and Evaluation

Hard copies of selected documents, which are not available through the internet, shall be sent by courier to the evaluator(s) in advance of the mission.

Field visits

The evaluator(s) will visit:

UNDP-GEF Headquarters, New York, USA
IMO Headquarters, London, UK
Pilot Countries and the demonstration sites as required

Interviews

The evaluator(s) will carry out interviews with:

- Programme Coordination Unit (Chief Technical Adviser (CTA) and Technical Adviser (TA))
- IMO staff involved in the execution of the project.
- UNDP-GEF
- Country Focal Points and CFPAs
- Members of the CPTFs
- Representatives of the relevant NGOs and industry
- Other constituencies and stakeholders not directly involved in the project who may have experienced, or may be expected to experience, its impacts.

Although the independent evaluator(s) should feel free to discuss with the authorities concerned all matters relevant to his (their) assignment, they are not authorised to make any commitment on behalf of IMO, UNDP or GEF.

4 Conclusions and Recommendations

Based on the above objectives and methodology, the evaluation mission should provide conclusions and recommendations, including:

- general recommendations on the implementation of the project
- the degree to which the project objectives have been satisfied
- significant lessons that can be drawn from the experience of the project and its results, particularly those elements that have worked well and those that have not
- recommendations on further action upon completion of the current project

5 Mission Report

In drafting the report, the independent evaluator will be guided by the standard UNDP Guidelines for Evaluators.

The final report of each of the evaluators should contain as a minimum the following Annexes:

- Terms of Reference for final evaluation
- Itinerary
- List of meetings attended
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Any other relevant material

As the report is the product of an independent evaluation, it is up to the evaluator to make use of the information provided during the mission. However, the evaluator is responsible for reflecting any factual corrections brought to his/her attention prior to the finalization of the report. Therefore, in order to ensure that the report considers the view of all parties concerned, is properly understood, and is factually accurate, it is necessary for the evaluator to submit draft reports to the GloBallast PCU, IMO and UNDP/GEF. PCU will revert promptly with collective feedback from project partners in order that the evaluator may finalize his/her reports.

The draft MTE report should be submitted in electronic format (MS Word) and hard copy to UNDP/GEF and PCU/IMO no later than 2 October 2002.

6 Composition of the mid-term evaluation mission

The evaluation will be performed by internationally recruited consultant(s), who shall be responsible for the overall review of the project. The consultant(s) should have considerable experience in the UN system, a good knowledge of marine environment protection from ships, extensive technical and managerial background, a good understanding of issues related to marine invasive species and in-depth experience of project evaluation techniques, particularly of those projects which are funded by

GEF. Fluency in English and excellent reporting skills are also required. The consultant should not have been directly involved in the design or implementation of the project.

7 Indicative mission timetable and itinerary

The duration of the consultancy shall be 37 working days for Mr B Okamura and 42 working days for Dr D Vousden, including travel time, based on the indicative itinerary in Annex II to the IMO/UNOPS Inter-Agency Agreement.

8 Contact information

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Agenda Item 5: Ballast Water Risk Assessments

Background

All Pilot Countries were briefed on the Ballast Water Risk Assessment at the 3rd GPTF meeting in January 2002, under agenda item 4 of that meeting.

The Risk Assessment consultancy is progressing well with the first round of country visits completed and the second round of country visits under-way.

It is hoped to have all in-country work completed by December 2002 and the reports finalised by February 2003.

Once all in-country work is completed, it is proposed that one technical person from the URS/Meridian team (Chris Clarke) will undertake a final wrap-up visit to each country (2 days per site) at the end of the project to assist with any remaining technical 'glitches', ensure that the systems are fully established and operating and that arrangements are in place to 'house' and maintain the system in each country. This will be covered by savings within the current budget.

URS is responsible for writing the reports for each country, in cooperation with the risk assessment team in each country. The PCU has provided URS with a standard report template that should be followed. A copy is attached. The final reports will be published as part of the GloBallast Monograph Series. Each country will review and approve the final report before publication.

It is hoped that a risk assessment wrap-up workshop can be held in Australia in early 2003, with 3 participants from each Pilot Country's risk assessment team (subject to sponsorship from Australia). The PCU is continuing to work with URS in Australia to secure this workshop and will keep countries informed.

China will provide a demonstration of the risk assessment methodology, using data from the Dalian Demonstration Site.

Action Required

Each country to continue to work through the in-country risk assessments teams and in close-collaboration with the URS/Meridian team to ensure that all necessary tasks are completed in time.

Each country to ensure that arrangements are in place to 'house', maintain and further develop the risk assessment system, including replication at additional ports within the country and in each region.

PCU to continue to work with URS to secure sponsorship for risk assessment workshop in Australia.

Annex 1: Standard Report Format for Ballast Water Risk Assessments

The report on the Ballast Water Risk Assessment for each GloBallast Demonstration Site should follow the standard format outlined below, with sections in order as listed.

Reports should be written in English, and drafts submitted electronically to the PCU for review and comment. Once PCU comments have been received, the reports should be finalised and submitted electronically to the PCU for formal publication as part of the GloBallast Monograph Series. Pilot Countries will be responsible for publishing the reports in their own languages if they wish to.

The reports should be supported by figures, images, graphs and tables, in colour where suitable.

Terminology should be standardised and reflect that used in the project Terms of Reference. A list of acronyms and definitions should be provided.

Writing style should be as clear and simple as possible, catering for a global, international audience.

Title

A standard title should be used, as follows:

Ballast Water Risk Assessment
Draft/Final (as appropriate) **Report**
Port of (add), (country)
(month/year)
(authors' names)

Acknowledgements

This section should acknowledge and thank all persons and organizations involved in the Ballast Water Risk Assessment. It should include the following text:

“The Ballast Water Risk Assessment for the Port of (add name of port) was funded by the GEF/UNDP/IMO Global Ballast Water Management Programme and the Government of (add country name).”

Acronyms

(add)

Terms and Definitions

(add)

Lead Agencies

This section should list the contact details for the Lead Agencies as follows:

Lead Agency for Ballast Water Issues in (add name of country)

Contact person:

Position:

Organization:

Address:

Tel:

Fax:

Email:

Web:

Lead Agency for Ballast Water Risk Assessments in (add name of country)

(if different from above)

Contact person:

Position:

Organization:

Address:

Tel:

Fax:

Email:

Web:

Executive Summary

(two pages max)

Contents

The contents page should come after the above sections and list the following (with relevant page numbers inserted):

Acknowledgements

Acronyms

Terms and definitions

Lead agencies

Executive summary

Contents

1. Introduction and background

2. Aims and objectives

3. Methodology

3.1 Overview of methodology

3.2 Resource mapping

3.3 De-ballasting/ballasting patterns

3.4 Identification of source ports

3.5 Identification of destination ports

3.6 BWRP Database

3.7 Environmental parameters

3.8 Environmental similarity analysis

- 3.9 High risk species
- 3.10 Risk assessment
- 3.11 Training & capacity building
- 3.12 Identification of information gaps
- 4. Results
 - 4.1. Description of the port
 - 4.2 Resource mapping
 - 4.3 De-ballasting/ballasting patterns
 - 4.4 Identification of source ports
 - 4.5 Identification of destination ports
 - 4.6 BWRP Database
 - 4.7 Environmental parameters
 - 4.8 Environmental similarity analysis
 - 4.9 High risk species
 - 4.10 Risk assessment
 - 4.11 Training & capacity building
 - 4.12 Identification of information gaps
- 5. Discussion & conclusions
- 6. Location & maintenance of the system
- References
- Appendices

1. Introduction and background

This section introduces the report and provides general background information. It will be similar for all Pilot Countries and a suggested text is therefore given below.

Suggested text:

“The introduction of harmful aquatic organisms and pathogens to new environments via ships’ ballast water and other vectors, has been identified as one of the four greatest threats to the world’s oceans. The International Maritime Organization (IMO) is working to address the ballast water vector through a number of initiatives, including:

- adoption of the IMO Guidelines for the control and management of ships’ ballast water to minimize the transfer of harmful aquatic organisms and pathogens (A.868(20),
- developing a new international legal instrument (Convention) on ballast water management, currently scheduled to be considered by an IMO Diplomatic Conference in 2003, and
- providing technical assistance to developing countries through the GEF/UNDP/IMO Global Ballast Water Management Programme (GloBallast).

The GloBallast Programme is working through six Demonstration Sites/Pilot Countries. These are Dalian (China), Khark Is (Iran), Mumbai (India), Odessa (Ukraine), Saldanha (South Africa) and Sepetiba (Brazil). Activities carried out at the Demonstration Sites will be replicated at additional sites in each region as the programme progresses (further information <http://globallast.imo.org>).

As part of the Programme a standardised ballast water risk assessment methodology has been developed and trialed at the six Demonstration Sites. Risk assessment is a fundamental starting point for any country contemplating implementing management regimes to control the transfer and introduction of harmful aquatic organisms and pathogens in ships' ballast water, whether under the existing IMO ballast water guidelines (A.868(20)) or the forthcoming ballast water Convention.

A port State may wish to apply its ballast water management regime uniformly to all vessels that call at its ports, or it may wish to assess the relative risk of vessels to valuable resources and apply the regime selectively. Uniform application or the 'blanket' approach offers the advantages of simplified administration and no requirement for 'judgement calls' to be made. In addition, this approach demands substantially less information management effort. Finally, it offers greater protection from unanticipated bio-invasers, as overall protection is not dependent upon the quality of a decision support system that may not be complete. The primary disadvantage of the blanket approach is additional costs to vessels which otherwise might not need to take action.

Some nations are experimenting with systems to allow more selective applicability of ballast water management requirements, based upon voyage-specific risk assessments. This 'selective' approach offers to reduce the numbers of vessels subject to ballast water controls and monitoring. This is especially attractive to nations that wish to reduce introductions of target species only. More rigorous measures can be justified on ships deemed to be of high risk if fewer restrictions are placed on low risk vessels. However, this approach places commensurate information technology and management burdens on the port State and its effectiveness depends on the quality of the information supporting it. The selective approach may also leave the country/port vulnerable to unknown risks from non-target species.

For countries/ports that choose the selective approach, it is essential to establish an organized means of evaluating the potential risk posed by each arriving vessel, through a Decision Support System (DSS).

Before a port State decides on whether to adopt the blanket or the selective approach, some form of general risk assessment needs to be carried out for each port under consideration. Ballast water risk assessments can be classified into three categories:

- Qualitative risk identification – this is the simplest approach, and is based on subjective parameters drawn from previous experience and expert opinion, resulting in simple allocation of 'low', 'medium' and 'high' risk.
- Semi-Quantitative Ranking of Risk – this 'middle' approach seeks to increase certainty and minimise subjectivity by introducing quantitative data wherever possible.
- Quantitative Risk Assessment – a full, mathematical analysis of the risk of ballast water introductions, requiring significant inputs of a large variety of data, including on target species, environmental conditions, individual ship and voyage characteristics, management measures applied and evaluation and input of all uncertainties. Such an approach requires a high level of resourcing and sophisticated techniques that are still under development.

GloBallast has undertaken initial, first-pass risk assessments for each Demonstration Site. To maximise certainty while seeking cost-effectiveness and a simple, widely applicable system, the middle semi-quantitative approach has been selected. The GloBallast risk assessments have assessed shipping arrival patterns and identified the source ports from which ballast water is imported. Once these are identified, source port/discharge port environmental comparisons have been carried out and combined with other risk factors such as risk species profiles to give a preliminary indication of overall risk. This will help determine the types of management responses that are required, and provide the foundation blocks for developing more sophisticated ballast water Decision Support Systems at each Demonstration Site.

The approach adopted is not the only one available, but combines the best elements of a semi-quantitative approach to provide an optimum result within the limited available budget (US\$250,000 across six countries). The outputs will include published reports, fully trained risk

assessment teams and operational risk assessment systems for use as demonstration tools in each of the six main developing regions of the world. The geographical spread and broad representativeness of the regions mean that the final results help plug a very large gap in the existing global knowledge base. This places governments, scientists, the shipping industry and the general public in a stronger position to deal with the ballast water ‘problem’ from a more enlightened position.

The GloBallast risk assessment methodology takes a whole-of-port approach comparing the subject-port with all source and destination ports. It provides an integrated information system to manage the port’s shipping and Ballast Water Reporting Form (BWRF) data, data on physical and environmental conditions and resources, risk species data and the port-to-port environmental matching and resulting risk co-efficients. The results provide a robust foundation to allow port States to clearly identify the risks presented by ballast water introductions, identify high priority areas for action, and decide on whether to apply a blanket or selective ballast water management regime. If a selective regime is adopted, vessel and voyage-specific risk assessment and Decision Support Systems can then be applied, such as those being developed by the Australian Quarantine & Inspection Service (the Australian DSS), Det Norsk Veritas in Norway (the EMBLA system) and Cawthron Institute in New Zealand (the SHIPEXPLORER system).

This report describes and presents the results of the first Ballast Water Risk Assessment carried out at the Port of (add) in add country name) in 2002.”

End suggested text.

2. Aims & objectives

This section describes the aims and objectives of the Ballast Water Risk Assessments. It will be similar for all Pilot Countries and a suggested text is therefore given below.

Suggested text:

“The aims of the Ballast Water Risk Assessment for the Port of (add port name) are to:

1. Assess and describe as far as possible from available data, the risk profile for invasive marine species being both introduced to and exported from (add port name) in ships’ ballast water, and to identify the highest risk source and destination ports for such introductions.
2. Help determine the types of management responses that are required, and provide the foundation blocks for developing a more sophisticated ballast water management decision support system for (add port name).
3. Provide training and capacity building to in-country personnel, resulting in a fully trained risk assessment team and operational risk assessment system, for ongoing use by the Pilot Country, replication at additional ports and use as a demonstration tool in the region.

The objectives of the Ballast Water Risk Assessment for the Port of (add port name) are to:

1. Identify, describe and map on Geographic Information System (GIS) all coastal and marine resources (biological, social/cultural and commercial) in and around the port that might be impacted by introduced marine species.
2. Characterise, describe and map (on GIS) de-ballasting and ballasting patterns in and around the port including locations, times, frequencies and volumes of ballast water discharges and uptakes.
3. Identify all ports/locations from which ballast water is imported (source ports).
4. Identify all ports/locations to which ballast water is exported (destination ports).

5. Establish a database at the nominated in-country agency for the efficient ongoing collection, management and analysis of the data collected at (add port name) according to the standard IMO BWRP.
6. Characterise as far as possible from existing data, the physical, chemical and biological environments for both (add port name) and each of its source and destination ports.
7. Develop environmental similarity matrices and indices to compare (add port name) with each of its source ports and destination ports, as the basis for the risk assessment.
8. Identify as far as possible from existing data, any high-risk species present at the source ports that might pose a threat of introduction to (add port name), and any high-risk species present at (add port name) that might be exported to a destination port.
9. Identify any information gaps that limit the ability to undertake the aims and objectives and recommend management actions to address these gaps.”

End suggested text.

3. Methodology

3.1 Overview of methodology

Suggested text:

“The risk assessment was undertaken by international consultancy companies URS Ltd and Meridian Pty Ltd, on contract to the GloBallast Programme Coordination Unit (PCU). The consultants worked alongside and provided training and skills-transfer to country counterparts in the Pilot Country, as part of the capacity building objectives of the programme. The in-country risk assessment team is listed in Appendix 1.

The GloBallast risk assessment methodology adopts an innovative, modular approach that integrates three computer packages, as shown in Figure 1.

Firstly, a customised and standardised MS Access database was established at (insert relevant in-country agency) for the ongoing entry, management and analysis of the IMO Ballast Water Reporting Forms collected from arriving ships. This database, combined with other shipping records held by the port, was used to identify source and destination ports. This is a fundamental and essential first basic step for any port State wishing to commence a ballast water management programme.

All coastal and marine resources (biological, social/cultural and commercial) in and around the port that might be impacted by marine bio-invasions were mapped onto ArcView Geographic Information System (GIS), along with map layers of port infrastructure and interactive depictions of the port’s de-ballasting/ballasting patterns, including locations, times, frequencies and volumes of discharges and uptakes.

Any high risk species present at the source ports that might pose a threat of introduction to the Demonstration Site, and any high risk species present at the Demonstration Site that might be exported to a destination port, were identified, using all available data sources. These included the biological baseline surveys completed recently at each GloBallast Demonstration Site, and various databases such as those under development by the Smithsonian Environmental Research Center (SERC), the Australian Centre for Research on Introduced Marine Pests (CRIMP), the Baltic Regional Marine Invasions Database and the Global Invasive Species Programme (GISP).

Environmental data, including sea temperature, air temperature, salinity, rainfall and tidal regimes, was collected from available sources for both the Demonstration Site and all source and destination ports. The environmental data was analysed by PRIMER, a versatile multivariate analysis package, to generate similarity coefficients comparing the Demonstration Site with each of its source ports and destination ports. This environmental matching combined with the risk

species analyses and other risk factors, provides the underlying basis of the risk assessment, allowing highest and lowest risk ports to be identified. Where port data is lacking, IUCN Bioregions were used to support the environmental matching.

The overall package is completed through the presentation of results on interactive port and world map layers, using the ArcView GIS. Raw data and inputs are entered and results and outputs are viewed graphically through the Graphic User Interface (GUI), enhancing the user-friendliness and management utility of the system.

Details of the methodology used in relation to each objective are given below.”

End suggested text

3.2 Resource mapping

(Describe methods used)

3.3 De-ballasting/ballasting patterns

(Describe methods used)

3.4 Identification of source ports

(Describe methods used)

3.5 Identification of destination ports

(Describe methods used)

3.6 BWRP Database

(Describe methods used)

3.7 Environmental parameters

(Describe methods used)

3.8 Environmental similarity analysis

(Describe methods used)

3.9 High risk species

(Describe methods used)

3.10 Risk assessment

(Describe methods used)

3.11 Training & capacity building

(Describe methods used)

3.12 Identification of information gaps

(Describe methods used)

4. Results

4.1 Description of the port

This section will describe the main features of the port. This only needs to be brief overviews for each sub-section, not lengthy, detailed coverage.

General features.

Provide a basic description of the port’s location (including latitude and longitude), geography, general layout, history, facilities and cargos handled.

Include maps (e.g. hydrographic/navigation/infrastructure overlays from GIS).

Climate and weather

Provide a general description of prevailing climate and weather patterns. Support with tables and graphs where possible.

Hydrodynamic conditions

Provide a general description of the prevailing hydrodynamic patterns in the port, including prevailing circulation and current velocities and seasonal variations in these parameters. Support with figures where possible (e.g. circulation maps/hydrodynamic model print outs).

Port development and maintenance

As part of the historic understanding of invasions, the development of the port including the establishment of breakwaters, jetties and groins should be briefly discussed. Recent maintenance activities (last 10 yrs) including dredging may also provide information to explain introductions in specific areas of the port.

4.2 Resource mapping

(Describe results achieved. Include maps from GIS)

4.3 De-ballasting/ballasting patterns

(Describe results achieved. Include maps from GIS)

4.4 Identification of source ports

(Describe results achieved. Include global map from GIS showing port locations)

4.5 Identification of destination ports

(Describe results achieved. Include global map from GIS showing port locations)

4.6 BWRP Database

(Describe results achieved. Include example of GUI)

4.7 Environmental parameters

(Describe results achieved. Include tables, figures etc, in appendices if appropriate)

4.8 Environmental similarity analysis

(Describe results achieved. Include GIS maps, tables, figures etc, in appendices if appropriate)

4.9 High risk species

(Describe results achieved. Include tables, figures etc, in appendices if appropriate. If possible, include images of the highest species)

4.10 Risk assessment

(Describe results achieved. Include GIS maps, tables, figures etc, in appendices if appropriate)

4.11 Training & capacity building

(Describe results achieved)

4.12 Identification of information gaps

(Describe results achieved. Make recommendations the country should adopt to address gaps).

5. Discussion and conclusions

Optional – use if any additional issues need to be discussed or conclusions made.

6. Location and maintenance of the system

Provide details of where the BWRF Database and risk assessment system for the country are housed and contact details for the persons responsible for updating and maintaining them.

References

Provide a list of references cited in the report. Use the following standard format for references. Author's surname; author's initials; year; title; publisher.

Appendices

Appendix 1: Risk Assessment Team for (add name of country)

Person:

Position:

Organization:

Email:

Person:

Position:

Organization:

Email:

etc

Other appendices as required.

Agenda Item 6: NGO/Industry Information Papers

Friends of the Earth International

Roger Lankester

As a professional engineer by training, I have been concentrating on the technical aspects of ballast water treatment and management. This has involved attending meetings at the Institute of Marine Engineers, Science and Technology to promote the ballast water issue and up on invitation present papers to conferences/seminars/workshops etc.

These include:

- The ICMES 2000 Conference in New York *The design limit state of environmental sustainability*, which featured ballast water management and the importance of a holistic approach to ship design and management.
- The joint 1st Maritime ST/RINA Seminar on Cruise Ships *Cruise Ships – are they all bad?* Again emphasising the holistic design approach to ship design and management with the example of ballast water management where grey water produced on board could be used as ballast water and treated through the ship's sewage treatment system, which is intended to remove pathogens.
- The Royal Institute of Navigation presenting a paper on environmental navigation, which proposed a structured approach to the environmental management of ships based on traditional geographical navigation practice. Again with a ballast water management element.

In the latter case an Environmental Pilot would be required to advise ships on no ballast water take up and discharge zones so that appropriate action can be taken, especially by transiting ships. Such zones would be determined from Integrated Coastal Zone Mapping systems that identify marine resources to be protected and locations where ballast water take up would be undesirable. Using electronic data presentation Environmental navigation/Pilots can be in real time allowing contemporaneous data to be available to the ship.

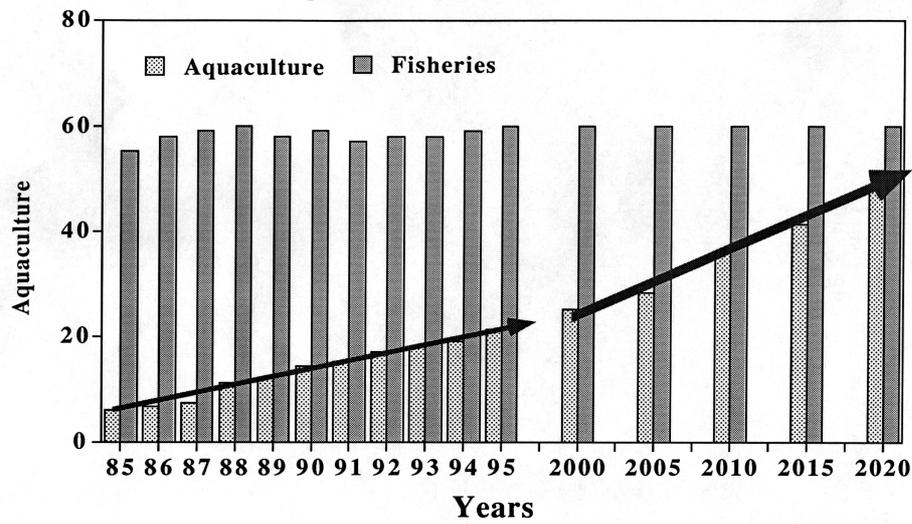
Friends of the Earth International intends to present a paper on this aspect of ballast water management to the Ballast Water Working Group intersessional meeting in March 2003.

Copies of the first two papers can be sent out electronically and the last one by post to those that would like one.

Ships' Ballast Water – Stakeholder Interest

- Aquaculture – fish diseases/parasites etc.
- Capture fisheries/artisanal fishing- as above and introduced predators.
- Public health – bacteria/viruses/toxic dinoflagellate – water intakes and swage discharges – fouling organisms.
- Biodiversity/nature conservation – any introduced species.
- Coastal maritime built infrastructure –
Flood defences, timber jetties and piled buildings – boring and burrowing species –
Coastal power plants, cooling water intakes – fouling organisms.

Predicted Aquaculture Production (2020)



Agenda Item 7: Information on the Proposed IMO/Pilot Country MoUs

Background

GloBallast is a complex project involving the three UN organisations and six national governments. The international transfer of funds and the expectation that each participating party will carry out various activities to fulfil certain obligations, as outlined in the Project Document, needed to be reflected and supported by written agreements. This provided a legal basis and mandate for cooperation between the executing agency (IMO) and the Lead Agencies in each participating country.

To date China, Iran and Ukraine have concluded their MoUs with IMO. As the Project Brief Letter of Endorsement submitted to the GEF Council in 1999 was signed by the Head of the Lead Agency in South Africa, it was agreed that there is no need for an additional memorandum between IMO and this particular country.

More recently the newly appointed Country Focal Point from Brazil indicated that the Lead Agency is ready to consider signing a MoU directly with GloBallast Programme Coordination Unit. As IMO could not agree with this course of action, Brazil was invited to amend the draft MoU to address all their concerns and submit the amended version to IMO.

India informed that the proposed MoU was submitted to the Ministry of Surface and there are some concerns regarding the need for such an agreement at ministry level.

Benefits

The benefits of such an MoU include:

- Clear definition of the roles, responsibilities and obligations of each party.
- Provision of a clear mandate for the project at the national level.
- A basis for the Lead Agency in each country to secure support from other national government bodies, including treasury, for the implementation of in-country programme activities.

Action Required

The Lead Agencies in participating countries that did not conclude a MoU should review the attached model and consider its signature at their earliest convenience.

Annex 1: Final Draft MoU

Please find below a sample of the above-mentioned document.

Memorandum of Understanding
between
Ministry of Transport of Ukraine
and
The International Maritime Organization (IMO)

This Memorandum of Understanding is concluded between the Ministry of Transport of Ukraine [address] and the International Maritime Organization (hereinafter referred to as "IMO") for the implementation and execution of the GEF/UNDP/IMO Project on "Removal of Barriers for the Effective Implementation of Ballast Water Control and Management in Development Countries" (Project No. GLO/99/G31/ All G/19) (hereinafter referred to as the "Project").

Preamble

The Ministry of Transport of Ukraine and IMO,

Desiring to achieve the overall objective of this Project, which is to assist developing countries to reduce the transfer of harmful organisms from ship ballast water, and more specifically to implement the existing IMO voluntary guidelines and prepare for the anticipated IMO regulatory regime on ballast water,

Considering that the Global Environment Facility (GEF) has allocated US\$7,392,000 for this Project for a three-year period from March 2000 to February 2003, UNDP is the GEF Implementing Agency for the project and IMO is the UNDP Executing Agency for the Project,

Recognizing that the commitment and support of the beneficiary participating countries is required to assure the successful implementation and execution of the Project,

Have agreed as follows:

Article 1: Objectives

1.1 The Parties to this Memorandum of Understanding agree to work together to implement and execute the Project and to perform their reciprocal obligations in accordance with the terms established by the Project document attached hereto (as amended if applicable).

Article 2: Undertaking by IMO

2.1 The IMO, as executing agency for the Project, has established a Project Co-ordinating Unit (PCU) at IMO Headquarters in London. The PCU consists of one Chief Technical Adviser (CTA), one Technical Adviser (TA) (a communication specialist), and one Administrative Assistant. The PCU will be responsible for the day-to-day activities of the Project, and will report to the Director, Marine Environment Division, IMO. IMO will report to the United Nations Development Programme; IMO will also provide staff support for the project activities and office space for PCU.

2.2 The Project Co-ordinating Unit (PCU) will:

- .1 throughout the life of the Project, cover the salary, including travel costs, of one assistant to the national Focal Point throughout the Project;
- .2 provide technical assistance and guidance to the national Focal Point in the execution of the Project on both national and regional basis in accordance with the Project Document;
- .3 finance the consultancy contracts and pay the costs of the activities related to implementation of the Project;
- .4 assist and provide financial support for organizing the national and/or regional meetings in accordance with the Project Document;
- .5 procure and finance the equipment necessary for the implementation of the Project;
- .6 cover the costs for reporting and evaluating the Project; and,
- .7 assist and provide financial support for the establishment of the Regional Task Forces (RPTFs).

Article 3: Undertaking by the Ministry of Transport of Ukraine

3.1 The Ministry of Transport of Ukraine will:

- .1 designate the organization to act as Lead Agency and appoint a Country Focal Point (CFP) for the Project;
- .2 in co-operation with the PCU, the CFP will select a competent person to act as Assistant to the Country Focal Point. The Lead Agency will provide office space for the Assistant;
- .3 release the Country Focal Point from his normal duties to attend meetings and participate in other activities related to the implementation of the Project (all travel costs incurred in this respect will be covered by the project);
- .4 develop port and country-specific programmes of action based on the model provided by PCU;
- .5 provide free access to information required for the implementation of the Project;
- .6 authorise, subject to adequate prior notification and formal clearance, site visits by technical experts to support the implementation of the Project;
- .7 provide financial and in kind support for the activities of the Project, especially covering local expenditure;
- .8 support the risk assessment activities, the port baseline surveys and academic research on subjects related to ballast water issues; and,
- .9 ensure co-ordination between the different agencies involved in the ballast water issues (environment, transport, fisheries, etc.).

Article 4: Implementation

4.1 During the development of the Project, the Lead Agency shall inform the PCU, through the Focal Point, of any other national or regional organizations to be involved in the project implementation.

4.2 The Ministry of Transport of Ukraine, through the Focal Point and IMO, through the PCU, shall keep each other mutually informed of all relevant developments related to the Project through official correspondence.

4.3 To ensure adequate follow-up and co-ordination of the work plan, regular national and regional meetings shall be arranged by the Country Focal Point, with assistance from the PCU, for the Country Project Task Force and the Regional Project Task Force.

Article 5: Amendments

5.1 Any amendment to the present MOU must be confirmed in writing between the Ministry of Transport of Ukraine and IMO.

Article 6: Entry into force and expiry of the Memorandum of Understanding

6.1 This Memorandum of Understanding will enter into force upon signature by the parties hereto. The duration of the present Memorandum of Understanding will be linked to the period necessary for the implementation of the Project. It will expire no later than 28 February 2003, or such other date as IMO and the Ministry of Transport of Ukraine shall agree in writing.

Article 7: Settlement of disputes

7.1 Any dispute between the parties to this MOU concerning the interpretation or applications of this Agreement shall be settled amicably. However, if the parties fail to reach a settlement the dispute shall be settled, finally, by arbitration in accordance with the United Nations Commission on International Trade Law (UNCITRAL) arbitration rules as at present in force.

Article 8: Termination

8.1 This Memorandum of Understanding may be terminated by both sides with a minimum of 60 days notice in the event of non-performance of any of its clauses or force majeure.

In witness hereof the duly accredited undersigned affix their signature.

Made in duplicate in the English language.

[City]

[day]

[date]

[year]

On behalf of
International Maritime Organization

On behalf of
Ministry of Transport of Ukraine

.....

.....

Agenda Item 8: Port Baseline Surveys

Background

All Pilot Countries were briefed on the Port Baseline Surveys at the 3rd GPTF meeting in January 2002, under agenda item 7 of that meeting.

Status

Field sampling has been completed in all six Pilot Countries, in some cases in both summer and winter, and sample identification, analysis and reporting is underway.

Next Stages

Each country now needs to complete sample identification, analysis and reporting. The PCU has provided a standard report format to all countries, which should be followed (copy attached and available electronically from the PCU). Draft final reports should be submitted to the PCU by December 2002. The final reports will be published as part of the GloBallast Monograph Series. Each country will review and approve the final report before publication.

The capacity-building aspect of this GloBallast activity means that each country now has a fully trained team and institutional arrangements for carrying out surveys for introduced marine species, according to standardised procedures. The challenge remains for each country to build on the baselines and implement ongoing, long-term monitoring programmes, for all ports in their jurisdiction. The Pilot Countries could also lead neighboring countries in regional port survey networks.

It is also vital that survey results are fed into national, regional and global databases. These must be linked to communication and reporting systems that allow the international shipping industry to be alerted to outbreaks of harmful species, so as to manage their ballast operations.

In order to progress these matters, as advised at the 3rd GPTF, the PCU planned to convene the *1st International Port Survey Workshop* in July 2002, in Brazil. For organizational reasons this has been postponed to February-April 2003.

The Workshop will involve the Port Survey team leaders and deputies from the GloBallast Pilot Countries plus other countries that are active in this area, including Australia, New Zealand, the UK and the USA. The purpose of the Workshop would be:

- For each country to present papers on their respective approaches to ports surveys and results to date, and to allow discussion and debate on comparing methods and results.

- To initiate greater global coordination and cooperation on this issue, including sharing of expertise, experiences and data.
- To revise the CRIMP Protocols and adapt them into truly International Port Survey Guidelines for formal publication and dissemination by the PCU.
- To establish uniform data recording and reporting standards and determine global database requirements.
- To explore the establishment of a global network of marine taxonomists to support port surveys.
- To develop a foundation for a global port survey and early-warning system for detecting, tracking, recording and reporting marine bio-invasions.

The venue for this workshop would be the IEAPM Marine Institute in Arraial do Cabo. For cost-effectiveness reasons, this workshop would be held back-to-back with the *1st International Ballast Water Sampling Workshop* that is also planned for February-April 2003 (see Agenda Item 10(b)).

Action Required

Each country to complete sample identification, analysis and reporting, in accordance with the standard PCU template, and submit draft final reports to PCU by December 2002.

Ideally, each country to build on the baselines and wherever possible to implement ongoing, long-term monitoring programmes, for all ports in their jurisdiction, and to lead neighbouring countries in regional port survey networks.

Each country to ensure that survey results are fed into national, regional and global databases, linked to communication and reporting systems that allow shipping to be alerted to outbreaks.

GloBallast PCU in cooperation with Brazil to organize the *1st International Port Survey Workshop* for February-April 2003.

Annex 1: Standard Report Format for Port Biological Baseline Surveys

Background

It is highly desirable that the six GloBallast Pilot Countries utilise a standardised, consistent format for the Port Biological Baseline Survey reports, so as to ensure that minimum reporting requirements are met, to facilitate ease of interpretation of results and to facilitate inter-comparisons of survey data between the six sites and with other sites around the world where similar surveys have been carried out. To assist the countries in developing their reports, the PCU has provided this standard format.

Reports should be written in English, and drafts submitted electronically to the PCU for review and comment. Once PCU comments have been received, the reports should be finalised and submitted electronically to the PCU for formal publication as part of the GloBallast Monograph Series. Pilot Countries will be responsible for publishing the reports in their own languages if they wish to.

The reports should be supported by figures, images, graphs and tables where suitable. For some of the introductory sections of the report, information including relevant GIS maps, can be derived from the risk assessment activity, which complements the Port Biological Baseline Survey.

You will note that we have adopted a more complete, accurate and descriptive title for the surveys - 'Port Biological Baseline Surveys'.

Queries/further information:

Steve Raaymakers
GloBallast PCU
sraaymak@imo.org

Standard Report Format

The Report on the Port Biological Baseline Survey should follow the standard format outlined below, with sections in order as listed.

Title

A standard title should be used, as follows:

Port Biological Baseline Survey
Draft/Final (as appropriate) **Report**
Port of (add), (country)
(month/year of survey)
(author's names)

Acknowledgements

This section should acknowledge and thank all persons and organizations involved in the Port Biological Baseline Survey. It should include the following text:

“The Port Biological Baseline Survey for the Port of (add name of port) was funded by the GEF/UNDP/IMO Global Ballast Water Management Programme and the Government of (add country name).”

Lead Agencies

This section should list the contact details for the Lead Agencies as follows:

Lead Agency for Ballast Water Issues in (add name of country)

Contact person:
Position:
Organization:
Address:
Tel:
Fax:
Email:
Web:

Lead Agency for Port Biological Baseline Surveys in (add name of country)

Contact person:
Position:
Organization:
Address:
Tel:
Fax:
Email:
Web:

Contents

The contents page should come after the above sections and list the following (with relevant page numbers inserted):

- Acknowledgements
- Lead Agencies
- Contents
- 1. Introduction and background
- 2. Aims and objectives
- 3. Description of the port
 - 3.1 General features
 - 3.2 Climate and environmental conditions
 - 3.3 Hydrodynamic conditions
 - 3.4 Shipping movements
 - 3.5 Port development and maintenance
- 4. Survey methods

5. Survey results
 - 5.1 Review of existing biological information
 - 5.2 Native biota in the port
 - 5.3 Introduced species in the port
 - 5.4 Cryptogenic species in the port
 - 5.5 New and unidentified species
 6. Translocation risk
 7. Recommendations
 8. Future surveys and monitoring
 9. Reference and voucher collections
- References
- Appendices

1. Introduction and background

This section introduces the report and provides general background information. It will be similar for all Pilot Countries and a suggested text is therefore given below.

Suggested text:

“The introduction of harmful aquatic organisms and pathogens to new environments via ships’ ballast water and other vectors, has been identified as one of the four greatest threats to the world’s oceans. The International Maritime Organization (IMO) is working to address the ballast water vector through a number of initiatives, including:

- adoption of the IMO *Guidelines for the control and management of ships’ ballast water to minimize the transfer of harmful aquatic organisms and pathogens* (A.868(20),
- developing a new international legal instrument (Convention) on ballast water management, currently scheduled to be considered by an IMO Diplomatic Conference in 2003, and
- providing technical assistance to developing countries through the GEF/UNDP/IMO Global Ballast Water Management Programme (GloBallast).

The GloBallast Programme is working through six Demonstration Sites/Pilot Countries. These are Dalian (China), Khark Is (Iran), Mumbai (India), Odessa (Ukraine), Saldanha (South Africa) and Sepetiba (Brazil). Activities carried out at the Demonstration Sites will be replicated at additional sites in each region as the programme progresses (further information <http://globallast.imo.org>).

It is not possible to manage and control introduced/invasive aquatic species (IAS) unless you know *what they are* and *where they are*. The IMO Guidelines encourage States to undertake biological surveys and monitoring in their ports. The results can be used to help control any IAS that are detected and to advise ships of areas or times to be avoided in taking on ballast. This can help to minimise the uptake and transfer of organisms.

As part of its objective of assisting developing countries to implement the IMO Guidelines, the GloBallast Programme is supporting each of its six Pilot Countries to conduct biological baseline surveys and ongoing monitoring programmes for IAS.

It is highly desirable that IAS surveys are conducted according to standardised, uniform methods. This helps to ensure quality control and a basic minimum standard, and allow inter-comparability of data. Such standardisation is extremely important when dealing with global activities such as

shipping and the transboundary movement of species, which requires a high level of international cooperation and coordination.

The Australian Centre for Research on Introduced Marine Pests (CRIMP) developed standard IAS survey protocols in 1996. These have been well tried and tested, with 34 Australian ports surveyed since 1996. The protocols were revised and republished in 2001 (Hewitt & Martin 2001).

In 2001 GloBallast selected the CRIMP Protocols for application at its six Demonstration Sites, on a trial basis. This included a training programme to establish national IAS survey teams, and the provision of technical advice, assistance and funds to design and conduct baseline surveys.

The establishment of biological baselines and IAS survey capabilities at six major ports in the main developing regions of the world, represents a major step forward in the global effort to address IAS. It is important to capitalize on the momentum generated to date, through long-term monitoring at the existing sites and replication at additional sites around the world.

The CRIMP Protocols have also been adopted/adapted by the University of Wales for UK ports and the New Zealand Ministry of Fisheries for a comprehensive series of surveys around NZ. They are also being applied at locations in the US, and considered for use by groups in the Baltic, Mediterranean and East Asian Seas.

When the initial GloBallast surveys are linked with the surveys being conducted or planned in other countries and regions, they provide an important building block for a much-needed global monitoring and early-warning system.

It is vital that survey results are fed into national, regional and global databases, and that these are linked to communication and reporting systems that allow the international shipping industry and government agencies to be alerted to outbreaks of harmful species. This will assist appropriate and timely management action.

This report describes and presents the results of the first Port Biological Baseline Survey carried out at the Port of (add) in (add country name) in (add month/year)."

End suggested text.

2. Aims & objectives

This section describes the aims and objectives of the Port Biological Baseline Surveys. It will be similar for all Pilot Countries and a suggested text is therefore given below.

Suggested text:

"The aims and objective of the Port Biological Baseline Survey for the Port of (add port name) are to:

- Provide baseline data on the species composition/biodiversity, distribution and abundance in all aquatic habitats of the port.
- Identify the presence/absence of invasive aquatic species (IAS) in the port.
- Provide training and capacity building to personnel from (add name of country) in all aspects of IAS surveys and monitoring.
- Establish reference and voucher collections of IAS in (add name of country).
- Provide the foundation for an IAS database /information system in (add country name).
- Provide the foundation for long-term, ongoing IAS monitoring at the port of (add name of port) and IAS surveys and monitoring at other relevant ports in (add country name).
- Provide the foundation for an eventual IAS detection, early warning and reporting system in (add country name), linked to similar systems regionally and globally."

End suggested text.

3. Description of the port

This section will describe the main features of the port and will need to be completed by the authors for the following sub-sections. These only need to be brief overviews for each sub-section, not lengthy, detailed coverage.

3.1 General features.

Provide a basic description of the port's location (including latitude and longitude), geography, general layout, history, facilities and cargos handled.

Include maps (e.g. hydrographic/navigation/infrastructure overlays from risk assessment GIS).

3.2 Climate and environmental conditions

Provide a general description of:

- prevailing climate,
- air and sea temperature ranges,
- tidal regime,
- salinity ranges,
- prevailing wind conditions,
- annual rainfall,

and seasonal variations in these parameters for the port.

Support with tables and graphs where possible. Much of this information should be directly available from the risk assessment activity.

3.3 Hydrodynamic conditions

A general description of the prevailing hydrodynamic patterns in the port, including prevailing circulation and current velocities and seasonal variations in these parameters. Support with figures where possible (e.g. circulation maps/hydrodynamic model print outs).

3.4 Shipping movements

Summary of the shipping movements and trading patterns with a discussion of the main ballast water source and destination ports for both international and domestic vessels. Include a brief description of ballast discharge patterns with specific information concerning primary discharge locations, times and volumes in the port (this information should be available directly from the risk assessment).

Include map (e.g. ballast discharge patterns overlay from risk assessment GIS).

In addition, the mooring areas and movement patterns of small vessels (fishing and recreational) and slow moving vessels (oil drilling platforms, barges, and itinerant dredges) should be discussed if possible.

3.5 Port development and maintenance

As part of the historic understanding of invasions, the development of the port including the establishment of breakwaters, jetties and groins should be briefly discussed. Recent maintenance activities (last 10 yrs) including dredging may also provide information to explain introductions in specific areas of the port.

4. Survey methods

This section should include a detailed description of the survey design. Provide a map showing each site location and the specific site codes. In the Appendices provide a table of the sampling sites with codes, description and justification for each site (as per the PSB sampling plan developed with Dr Campbell - see Appendices below).

Describe the sampling methods used at each site. Refer to the Appendices for specific information on each sampling method (see Appendices below).

Support with images/photographs of the field sampling team, sampling activities and each piece of sampling equipment where possible.

5. Survey results

This is the most important part of the report and care should be taken to complete each section as accurately as possible. The draft reports may be sent for peer review prior to publication.

5.1 Review of existing biological information

Provide a review of previous sampling activities in the port including the methodologies used and results for the port and adjacent coastal regions. This should provide some indication of the general knowledge of native biota in the region, and an indication of any recognised introduced species that have been detected prior to the Port Biological Baseline Study. Support with a bibliography of any previous biological surveys and monitoring in the port.

5.2 Native biota in the port

Describe the species composition/biodiversity, distribution and abundance of native species in all habitats of the port, as assessed by the Port Biological Baseline Survey. Support with species distribution maps of the port and in the Appendices provide species lists for each sampling site (see Appendices below).

5.3 Introduced species in the port

Identify and list any introduced species detected in the port and describe their native ranges and worldwide distributions.

Describe the distribution of each introduced species in the port. Where possible provide a synthesis of the linkages between the sites where the species was found and the most likely introduction vector (e.g. ballast discharge location, specific berth, etc). Describe potential impacts of these introduced species in the port based on overseas experience.

Support with distribution maps showing where each introduced species was found in the port and a photograph of each introduced species.

5.4 Cryptogenic species in the port

Identify and list any cryptogenic species detected in the port (cryptogenic = able to be identified but unsure if it is native or introduced).

Describe the distribution of each cryptogenic species in the port.

Support with distribution maps showing where each cryptogenic species was found in the port and a photograph of each cryptogenic species.

5.5 New and unidentified species

Identify and list any species detected in the port that may be new to science or that cannot be identified.

Describe the distribution of each new or unidentified species in the port.

Support with distribution maps showing where each new or unidentified species was found in the port and a photograph of each new or unidentified species.

6. Translocation risk

Describe the likelihood of any introduced species detected in the port being translocated to other areas.

7. Recommendations

Make recommendations on:

- Action required to contain, control and/or eradicate any existing introduced species detected in the port.
- Action required to prevent translocation of any existing introduced species to other areas (both within the country and internationally).
- Action required to prevent further introductions.
- Any follow-up monitoring and re-sampling required.

8. Future surveys and monitoring

Describe what plans the country has for continuing long-term, ongoing IAS monitoring at the demonstration site and for extending it to other ports in the country, and for establishing an IAS database/information system and IAS detection, early warning and reporting system.

9. Reference and voucher collections

Provide details of where the reference and voucher collections are housed, contact details for the persons responsible for these collections and procedures for accessing the collections.

References

Provide a list of references cited in the report. Use the following standard format for references.

Author's surname; author's initials; year; title; publisher.

Appendices

Add the following appendices

Appendix 1: Sampling procedures

Provide a summary of the sampling methods and equipment used during the survey. Any alterations to the CRIMP protocols should be explicitly recorded with a comparative analysis of the differences between the accepted sampling methodology and the one implemented. Appropriate analyses include direct comparisons during the survey and published comparisons in the literature.

Appendix 2: Sampling site details

Provide a table with the site, location (lat/long), date of sampling, site code used during the survey, and sampling procedures implemented at the site.

Appendix 3: Survey results

A table of survey results should be presented in the form of a species list by site (or sample) matrix to facilitate subsequent cross-comparisons between surveys of different ports or in different regions. Presence/absence information is required at the minimum.

Agenda Item 9: Ballast Water Management and Control Training Package

Background

Activity 4.2 of the Project Implementation Plan provides for the development and delivery of training packages using the UN Train-X decentralised course development and sharing system. The initial delivery of the training package will serve as validation of the course and the validated course packages will be sent to training units in each Pilot Country for adaptation according to the Train-X methodology and subsequent national/regional delivery.

Training and education should include instructions on the application of ballast water and sediment management procedures and maintenance of appropriate records and logs in accordance with the IMO Guidelines. The governments of the six Pilot Countries should be encouraged to ensure that their marine training and educational organisations include these instructions in their syllabus and specific training requirements will be incorporated in the certification procedures.

Activity Description

During the 2nd GPTF Meeting in December 2000, general consensus was reached on the need for such training and the members of the task force identified the TRAIN-SEA-COAST (TSC) Programme as most appropriate to coordinate the development of the training package. UNDP has recommended TSC as the best qualified programme for this purpose as it combines the technical knowledge on coastal zone management with the necessary pedagogical skills in Train-X methodology.

Expected benefits of the partnership between the GloBallast Programme and TSC global training network as a vehicle to address GloBallast related training priorities include:

- High quality training standards for the development and delivery of the training package at various locations.
- Standardized approach to the training needs of the six Pilot Countries consistent with the provisions of IMO Guidelines and requirements of the future Convention.
- Local capacity building for developing, adapting and delivering the training package.
- Participation in the Train-X sharing network and possible dissemination of the GloBallast concepts worldwide.
- Active and direct cooperation between different GloBallast activities and their training components.
- Pooling resources available under the two GEF projects.
- Cost-effectiveness in the short and long terms.

The Education and Training Project was approved in mid-2001 and the CFPs in Brazil and South Africa were advised to contact the TSC course developing units in their countries and initiate the training package development. The estimated budget for course development was \$109,000. The remaining US\$173,000 was allocated for validation, adaptation of the courses and delivery of the training package.

It was agreed that the TRAIN-SEA-COAST/GloBallast course will be prepared jointly by TSC/Brazil located in the Federal University of Rio Grande and TSC/Benguela Current located in the University of Western Cape in Cape Town, South Africa. The course developers were requested to provide draft work programmes and tentative schedules for the training development activities. A plan for the allocation of the resources, based on the initial project document, was preliminarily agreed upon. The work programme was discussed by TSC New York and GloBallast PCU in order to set up coordination mechanisms and facilitate effective communication. Some delays were encountered because of the replacement of the team leaders of the two course developing units.

As the training package needs to reflect the lessons learned during the implementation of the other activities and to ensure active and direct cooperation among the various components of the Programme the PCU provided copies of the outcome of the other activities of GloBallast and advised the CFPs to maintain permanent links with the course developers in order to update them on latest developments. Finally, it was agreed to maintain permanent communication between the two course development units and ensure coordination of the work through TSC New York and GloBallast PCU.

In April 2002 a Coordination meeting was organized by Train-Sea-Coast, Central Support Unit (TSC/CSU) in collaboration with GloBallast PCU. The objectives of the meeting were as follows:

- (i) To discuss the preliminary Training Needs Analysis (TNA) undertaken by TSC/Brazil and TSC/Benguela Current, in preparation of the Coordination Meeting.
- (ii) To undertake the final design and development of the Ballast Water Management Training Package (BWMTP).
- (iii) To assign follow-up responsibilities to each Course Development Unit.
- (iv) To select subject-matter experts to assist each CDU, and agree on their TORs.
- (v) To select international experts to review the final draft of the course, and agree on their TORs.
- (vi) To draft a work schedule for each CDU up to the validation of the course.
- (vii) To agree on a reporting system.
- (viii) To finalize administrative arrangements needed for the completion of the training package, including the 2 validations in Brazil and South Africa, respectively.

Extensive discussions took place regarding the preliminary training needs analysis. Initially three target groups were identified namely: competent authority, ship's personnel and port personnel. After thorough analysis it was agreed that at this stage the course should be targeted to a combined audience comprising all three categories above. This approach would avoid duplication of efforts as some of the modules were common for all the trainees and would solve a number of logistic problems related to the availability of possible trainees.

The participants completed the curriculum design and the design of the modules and assigned modules 1 to 5 to TSC South Africa and modules 6 to 10 to TSC Brazil. All the participants have agreed further administrative details and rigorous timelines for the next phases of the process. A comprehensive report produced by the pedagogic consultant of TSC is attached as Annex I of this agenda item briefing paper.

To date modules 7 and 8 have been completed by TSC Brazil, module 6 is well underway and it is expected that modules 9 and 10 will be finalized by mid-December 2002 to meet the deadline of the first delivery (validation) in February 2003. Although it was reported that by 21 October 2002 TSC

South Africa would finalize modules 1, 2 and 4, to date they were unable to produce evidence of progress in this activity.

After a thorough evaluation of the current situation and due to the fact that further delay may jeopardize the entire training component it was decided, in consultation with the TSC/CSU, to request permission from the GPTF to adopt an emergency solution and develop modules 1-5 through a cooperative effort of TSC Brazil and TSC CSU in New York. It should be noted that the Train-Sea-Coast Programme has provided US\$10,000 to ensure that the GloBallast Training Course is delivered in time and the Coordinator of the Programme is prepared to finalize the work according to the agreed deadline.

Action Required

The following action is required for the further implementation of the Education and Training Activity:

- GPTF is invited to concur with the course of action proposed in paragraph 12.
- GloBallast PCU together with TSC New York to identify the international experts required for the final review of the training package.
- CFPs, through their CPTFs, to identify the appropriate training institutions and experts for the adaptation and delivery of the training course.
- CFPs, through their CFP Assistants to identify the most appropriate location and organise in co-operation with the course development units the delivery of the course.
- CFP and CFPA to assist the CDUs to expedite the course development and meet the above deadlines.

CPTFs in Brazil and South Africa to advise the relevant agencies in charge of maritime education and training to include ballast water management and control procedures in their syllabus.

Agenda Item 10: Compliance Monitoring and Enforcement

Background

Compliance Monitoring and Enforcement (CME) is one of the key components of the GloBallast Programme. Under the initial assumptions by 2001/2002 the new international Convention was supposed to have been adopted and participating countries could commence CME activities based on the position of the envisaged Convention. Now that the Diplomatic Conference for the adoption of the Convention has been re-scheduled for early 2004 the CME component has had to be restructured. Although some countries found it difficult to enforce the existing IMO Ballast Water Guidelines (A868(20)) prior to the adoption of a new Convention, it was felt 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.

Because of 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 Pilot Countries were briefed on the outcome of the Scoping Study at the 3rd GPTF in January 2002 under agenda item 9. The study was distributed to all the participants and the Pilot Countries were invited to comment and adapt the suggested approaches to their needs and national requirements.

Why are CME Activities Necessary?

The overall objective of the GloBallast Programme is to assist countries in reducing the transfer of harmful marine species in ships' ballast water by helping them to implement the IMO Guidelines and to prepare for the implementation of the anticipated Convention. In this context the benefits of developing a national CME system include:

- Enhanced protection of coastal waters against invasive species;
- Establishment of a comprehensive database on ballast water discharges, patterns of shipping currents, periodicity, main sources of invasive species and other accurate and readily available information;
- Use of country-specific compliance monitoring measures as an important research tool that can be used to assess the relative efficiency of BWM options;
- Establishment of in-country, well-trained, teams of inspectors;
- Comprehensive manuals that fully inform the shipmasters and the ship personnel of the requirements of the system and how it operates; and
- Sound basis for replication of the ballast water management measures at a regional level.

During the 3rd GPTF Meeting it was felt that if MEPC 48 progressed the development of the Convention to the extent necessary to convene a Diplomatic Conference for its adoption in the fall of 2003, GloBallast could use the final draft of the instrument and initiate the development of a generic CME System based on similar systems existing in Australia, Canada, New Zealand and the United States, which could then be tailored by each country to its needs. It was also felt that a consortium of experts from the above countries could best develop a generic CME System by sharing the experience in their respective countries.

As MEPC 48 could not finalize the text of the Convention, and the Diplomatic Conference was shifted to early 2004, GloBallast may need to reschedule this activity for the second half of 2003 when it is believed that a final draft of the Convention will be available from MEPC 49.

New Approaches Related to CME

Some countries felt that before establishing a CME System there was a need to develop a national policy on the management of ships' ballast water and sediments, which could pave the way for the Convention after its adoption by the Conference. South Africa took the lead and prepared an initial document to facilitate further discussions at national level and produce a draft policy that can be submitted to the Cabinet for approval and adoption as a "White Paper". The primary purpose of the policy was to avoid the accidental introduction via ballast water and the establishment within South African waters of any exotic marine organisms and pathogens. Where it is not reasonably possible to achieve this, the policy aims to control and, where appropriate, eradicate any pathogens and harmful marine organisms that have become established. The policy is intended to implement the country's international legal obligations and support initiatives to control and manage the discharge of ballast water and sediments from ships.

The policy document is based on several previous studies done under the GloBallast Programme including the "Legislative Review Report" and on the outcome of the National Ballast Water Management Policy Workshop organized at the demonstration site in March 2002. A copy of this document is available as Attachment I of the present GPTF paper.

Action Required

The Task Force is invited to comment on the provisions of paragraphs 5 and 6 and advise on the further course of action regarding the generic CME system.

As sampling procedures represent an important component of the CME system, PCU should endeavour to finalise the organization of the international workshop to debate this topic and develop standardized sampling procedures.

Pilot Countries are invited to review the Draft Policy on the Management of Ballast Water in South Africa and to assess the need to undertake similar approaches and to develop policy documents tailored to the specific situation in each country.

Agenda Item 10(a): Compliance Monitoring & Enforcement Ballast Water Sampling

Background

All Pilot Countries were briefed on the Ballast Water Sampling issue at the 3rd GPTF Meeting in January 2002, under agenda item 9(b) of that meeting, as follows:

Sampling of ships' ballast water may be carried out for a number of useful purposes, including:

- To assess compliance with open-ocean ballast water exchange requirements (compliance monitoring and enforcement).
- To identify potentially harmful species carried in ballast water (risk assessment).
- To better understand the biology and chemistry of ballast water (scientific research).

The GloBallast PIP allocates US\$10,000 to each Pilot Country for the purchase of ballast water sampling equipment, in order to allow the countries to undertake the above activities at the Demonstration Sites.

Because ballast water sampling equipment and methods have been in a phase of development, with different countries and parties around the world trialing different approaches, the PCU has advised the Pilot Countries to hold-off on purchasing equipment until some form of international standard and guidelines for ballast water sampling are established.

A number of guidelines for ballast water sampling are now available. These include:

- A practical manual on ballast water sampling published by the Cawthron Institute in New Zealand in 2000.
- A review of ballast water sampling methods published by the Centre for Research on Introduced Marine Pests (CRIMP) in Australia in 1999.
- An international calibration exercise for ballast water sampling conducted under the EU Concerted Action Programme on ballast water in 1999.
- A report from the Ballast Water Sampling Correspondence Group established by the IMO MEPC Ballast Water Working Group in 2000.
- Sampling methods used by individual scientific institutions such as the Smithsonian Environmental Research Centre (SERC) in the USA.
- Sampling methods used by various regulatory agencies such as the US Coast Guard and similar agencies in other countries.
- Proceedings of the IMO Floating Workshop on Ballast Water Sampling in the Black Sea.

One of the GloBallast Pilot Countries, Brazil, has initiated an experimental ballast water sampling programme at nine ports in the country, through its health authority, aimed at assessing the presence of pathogens in ballast water. The IEAPM marine institute in Arraial do Cabo has developed significant expertise in ballast water sampling and Brazil may be in a position to lead the other GloBallast Pilot Countries on this issue, as South Africa did with the Port Surveys.

Next Stages

In order to progress these matters, as advised at the 3rd GPTF the PCU planned to convene the *1st International Ballast Water Sampling Workshop* in July 2002, in Brazil. For organizational reasons this has been postponed to April 2003.

The Workshop will involve two relevant specialists from each of the GloBallast Pilot Countries plus experts from other countries that are active in this area, including Australia, Canada, Germany, Israel, New Zealand, the UK and the USA. The purpose of the Workshop will be:

- For each party to present papers on their respective approaches to ballast water sampling and results to date, and to allow discussion and debate on comparing methods and results.
- To initiate greater global coordination and cooperation on this issue, including sharing of expertise, experiences and data.
- To review the various ballast water sampling guidelines and standards that are currently available (as outlined under 1.4 above) and adapt them into International Ballast Water Sampling Guidelines for use by the GloBallast Pilot Countries and formal publication and dissemination by the PCU.
- To provide practical training to the delegates from the GloBallast countries in standardised ballast water sampling methods, to allow them to purchase the necessary equipment and develop and implement ballast water sampling programmes on return to their home countries.

The venue for this Workshop would be the IEAPM Marine Institute in Arraial do Cabo. For cost-effectiveness reasons, this Workshop would be held back-to-back with the *1st International Port Survey Workshop* that is also planned for April 2003 (see Agenda Item 8).

Action Required

GloBallast PCU in cooperation with Brazil to organize the *1st International Ballast Water Sampling Workshop* for April 2003.

Agenda Item 11: Regional Replication & Cooperation

Background

The design of the GloBallast Programme is based on the use of initial Demonstration Sites located in Pilot Countries, followed by replication of the Demonstration Site activities in each region as the programme develops. This is to be effected in part through the establishment and support of Regional Task Forces to increase regional awareness and provide a framework for regional cooperation.

Being common for all regions this objective has a higher priority for those that, due to economic, geographic, oceanographic and/or ecological conditions are more vulnerable to the introduction and spread of harmful aquatic organisms and pathogens. In view of this, plus the fact that regional networks for cooperation are already in place for the Black Sea (Odessa Demonstration Site, Ukraine) and the ROPME (Regional Organization for the Protection of the Marine Environment) Sea Area (Kharg Island Demonstration Site, Islamic Republic of Iran), it was agreed to launch the GloBallast regional initiatives in these two enclosed seas.

Black Sea Conference

All Pilot Countries were briefed on the *1st Black Sea Conference on Ballast Water Management and Control* at the 3rd GPTF meeting in January 2002, under agenda item 11 of that meeting.

It is now necessary for the Pilot Country (Ukraine) and the PCU to progress implementation of the Regional Action Plan (RAP) that was adopted at the Conference, through the Istanbul Commission and Black Sea Environment Programme, including identifying and securing funding and resources for the Plan.

The final report of the Conference has been published as part of the GloBallast Monograph Series.

Baltic Regional Workshop

All Pilot Countries were briefed on the *Baltic Regional Workshop on Ballast Water Management* at the 3rd GPTF meeting in January 2002, under agenda item 11 of that meeting.

The final report of the Workshop has been published as part of the GloBallast Monograph Series.

Since the Workshop the PCU assisted the region to secure US\$36,000 from the US State Department to initiate invasive aquatic species surveys and monitoring in the north-east Baltic.

The issue has also been firmly placed on the agenda of HELCOM and the GEF Baltic Sea Regional Project, and efforts are continuing to secure additional funding and resources from these sources for regional ballast water management and control activities.

ROPME Sea Area Regional Conference

The *1st Regional Conference on Ballast Water Management and Control in the ROPME Sea Area* was held in Tehran, I.R. Iran from 17 to 19 June 2002. The Conference was organized by the Government of I.R. Iran and the GloBallast PCU, with support from the ROPME Secretariat and two consultants. The Conference was attended by all ROPME member States and by observers from regional governmental and non-governmental organizations.

The objectives of the Conference were to:

- enhance regional awareness and cooperation in the field of ballast water management and control;
- consider and endorse the draft of the Regional Action Plan (RAP); and
- agree on the machinery for implementation of the RAP including an appropriate coordination mechanism.

The opening of the Conference was followed by technical presentations by representatives of the GloBallast Programme and the regional scientific community, which provided comprehensive information on programme-related activities, and a review of the research and development aspects of ballast water management and control in the region.

Substantial time was allocated to the national presentations by ROPME countries. Each of the presentations contained comprehensive data and statistics relevant to a specific country's maritime and environmental conditions as well as a description of national policies and practical arrangements aimed at the protection of the marine environment and measures to control the introduction of unwanted species into new locations.

One of the most important themes of the Conference agenda was consideration of the RAP. 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; and
- enhance regional cooperation utilizing the existing regional bodies, established under the Regional Organization for the Protection of the Marine Environment (ROPME).

The RAP lists principal actions to be undertaken by the States and administrations concerned, defined arrangements for future cooperation and outlines possible funding sources for the implementation.

The Conference unanimously adopted the Resolution which in its four operational paragraphs:

- endorsed the RAP;
- called for a high level Conference to formally adopt the RAP;
- requested the ROPME Secretariat to undertake the coordination of activities under the RAP;
- called for countries to attach priorities to the implementation of the appropriate IMO instruments; and
- requested GEF, UNDP and IMO to secure continuation of the GloBallast activities in order to ensure a seamless introduction of the forthcoming Convention in the ROPME Sea Area.

The final report of the Conference will be published as part of the GloBallast Monograph Series.

Other Regions

Ad-hoc regional activities have been undertaken for the African, East Asia Pacific, South Asia and South American regions (e.g. presentations at various regional meetings).

The East Asia region (China) will hold its 1st regional Workshop immediately following the 4th GPTF and it is understood that South Asia (India) is planning its 1st regional event for early 2003. Several other GloBallast events are planned for early 2003 – so these will need to be coordinated to avoid clashes.

The PCU has secured US\$30,000 from the IMO TC fund for a regional workshop for Africa (over and above the GloBallast South Africa budget) and this will need to be coordinated with South Africa's proposals for regional activities.

The PCU continues to nurture cooperative links with various other regional bodies and sister GEF-IW projects, including the Caspian Environment Programme (CEP), Partnerships for Environmental Management in the Seas of East Asia (PEMSEA), the Helsinki Commission (HELCOM), the South Pacific Regional Environment Programme (SPREP), Asia-Pacific Economic Cooperation (APEC), Regional Cooperation Among Maritime Authorities of South America (ROCRAM) and the Mediterranean Action Plan (MAP). The most recent example of such activities was GloBallast's participation in the IMO/UNEP forum, which was attended by all participants in the UNEP Regional Seas Programme.

An excellent opportunity to share experiences and best practices for international waters management and to promote regional cooperation was provided by the 2nd International Waters Conference held at the end of September 2002. The GEF International Waters portfolio now totals over US\$600 million and involves well over 100 GEF recipient countries. The Conference was attended by Country Focal Points from China and Iran and by the Chief Technical Adviser. GloBallast participated in the exhibition organized during the Conference and the stand prepared by a support team from the Chinese Maritime Safety Administration was visited by participants from GEF implementing agencies, private, academic and non governmental sectors and by government representatives.

Practical discussions regarding future regional cooperation were held with representatives of the HELCOM and Black Sea Commission. Consistent with its principle of "the tool in the toolbox", GloBallast invited new regions developing strategies for integrated coastal management, in particular projects involved in large marine ecosystems, to include ballast water as a topic in their regional policies and to take advantage of the "read-made tool" offered by the project to address marine invasive species transferred by ships. The complete Conference proceedings are now available in e-format on the IW:LEARN website and a direct link has been added to the GloBallast website.

Action Required

Pilot Countries that adopted Regional Action Plans are encouraged to maintain the contacts established during the Regional Conference and to bring their regional partners up to date on the development of the Programme.

GloBallast PCU, supported by IMO, will approach the respective regional organisations to include the ballast water issue on their regular agenda.

Pilot Countries that did not adopt Regional Action Plans were invited to attend the 1st East Asia Workshop on Ballast Water Management and Control and to apply a similar approach to their respective regions.

Agenda Item 12: Resourcing & Financing

Background

In accordance with the requirements of the Project Implementation Plan (PIP), the PCU has been seeking supplementary sources of support and funds for the programme.

At the 3rd GPTF the PCU had secured approximately US\$630,000 worth of additional funding and support-in-kind from the IMO Technical Cooperation Fund, the UN Division of Ocean Affairs and Law of the Sea, the Government of Singapore and the shipping industry and other sources, as outlined under agenda item 11 of the 3rd GPTF meeting.

Progress

Since the 3rd GPTF, the following additional co-financing has been secured to date:

- US\$34,000 from the US State Department for the Eastern Baltic.
- US\$30,000 from the IMO TC Fund for a regional workshop in Africa.
- US\$200,000 from Vela Shipping (Saudi Aramco) for the GloBallast TV Documentary.
- US\$100,000 from the UNDP Film Unit for the GloBallast TV Documentary.
- US\$50,000 from Stolt Nielsen for the GloBallast TV Documentary.
- US\$50,000 plus secretariat services from the Regional Clean Sea Organisation (RECSO) for joint regional oil industry seminar.
- US\$25,000 support from IMO for the dissemination of Ballast Water News.
- US\$42,000 (approx) for participation as presenter in seminars, conferences and other relevant events from various sources including the shipping and oil industries and third party countries interested in ballast water issues.

Although not secured, Wallenius Line and Carnival Cruise Line may also each provide US\$100K for the GloBallast TV Documentary.

Proposals to APEC for US\$500,000 for Asia/Pacific and to Germany or Norway for an Associate Professional Officer (APO) to join the PCU were unsuccessful.

Prospects

The following additional prospects have been identified to date:

- Potentially up to €5 million for the Baltic Sea/ Black Sea/Eastern Europe from the EU.
- Potential additional funding from the US State Department for the Eastern Baltic.
- Potentially funding from the GEF Baltic Sea Regional Project for the Baltic.
- Another round of consideration by APEC for Asia/Pacific.
- Potential support-in-kind from the USA to undertake ballast water treatment R&D in South Africa and Brazil.
- Potential sponsorship from Australia for the 1st International Ballast Water Risk Assessment Workshop.
- Potential sponsorship from Japan for the 2nd International Ballast Water Treatment R&D Symposium.

The PCU is working with relevant organizations to develop the proposals further.

The status of in-country self-financing issues is to be reported by the Pilot Countries.

Agenda Item 13: TV Documentary

Background

All GPTF members were briefed on the GloBallast TV Documentary proposal at the 3rd GPTF. Since then, country comments were incorporated and an updated Concept Paper developed.

Current Status

Since the 3rd GPTF meeting, the PCU has focussed efforts on securing funds for the documentary, with the following results:

Committed:

US\$100K from UNDP Film Unit

US\$200K from Vela Shipping (Saudi Aramco) – ready to sign.

Offered:

US\$50-100K from Stolt Neilsen

Likely (very positive interest):

US\$100K from Wallenius Line

US\$100K from Carnival Cruises.

Considering the GloBallast ‘seed’ allocation of only \$200K for this activity, this represents a potential leveraging ratio of 3:1.

The Programme Coordination Unit has briefed the Senior Management Committee of IMO on two occasions on the benefits of the television documentary and regularly informed the Director, Marine Environment Division, about the negotiations with the potential donors.

However, after thorough consideration of all the arguments brought forward by the Programme Coordination Unit, the IMO Senior Management Committee decided that, due to the shifting of the Diplomatic Conference to the beginning of 2004 and a number of other concerns, it is not the appropriate time to embark on such an endeavour.

Agenda Item 14: GloBallast *Advanced*

Background

A draft Discussion Paper on the concept of GloBallast Advanced was circulated during the 3rd GPTF in Goa under agenda item 14. A number of participants commented on the draft and the UNDP/GEF representative suggested that a review of the draft GloBallast *Advanced* document be undertaken by the independent evaluators appointed to carry out the mid term review of the project.

Accordingly, in August 2002, relevant provisions regarding the review of the draft paper were included in the Terms of Reference of the two independent evaluators. The Terms of Reference are attached to the briefing paper for item 4 [*See Appendix 5*].

Based on the initial discussion paper and comments provided during the 3rd GPTF, PCU developed a standard Concept in accordance with the template provided by UNDP/GEF. The Concept document was circulated electronically one week before the 4th GPTF meeting and is also attached as Annex 1 to this brief document for agenda item 14.

After discussion of the Concept paper during the 4th GPTF and based on the recommendations of the independent evaluators a final draft will be prepared by PCU and submitted to UNDP/GEF and IMO for their final review. Once formally agreed by both UNDP and IMO the Concept will be submitted to the GEF Secretariat before 31 January 2003 for their consideration during the GEF quarterly meeting in February 2003. If there is a favourable response the PCU suggests identifying an experienced international consultant to further develop the Concept in a formal Project Document for submission to the GEF Council in Autumn 2003.

Action Required

Pilot Countries are invited to consider the Concept paper and the recommendations by the independent evaluators and to provide their comments to the PCU by 11 November 2002.

The PCU will consolidate all the comments and recommendations in a final draft of the Concept paper and submit the document for consideration to UNDP and IMO by 18 November 2002.

Agenda Item 15: Any Other Business - Report on Participation at WSSD

Background

The World Summit on Sustainable Development (WSSD) was held from 26 August to 4 September 2002 in Johannesburg, South Africa.

The CTA together with a support team from South Africa attended the summit as part of the IMO delegation, the objectives of this mission included to:

- Provide support during the negotiations regarding the adoption of the Plan of Implementation for the WSSD.
- Attend the side events for oceans, coasts and islands.
- Promote the Type II Partnership Initiative regarding the continuation of the GloBallast Project through the IMO/GEF/UNIDO stand at the Waterdome Exhibition, other relevant side events and bilateral contacts.
- Attend the “Biodiversity and Poverty” Day organized at the IUCN Environment Centre and introduce the GloBallast Programme through a presentation during the event “Trading Risks – How to Combat the Spread of Invasive Species?”

All the proposals put forward by IMO during the negotiation process were integrated in the Plan of Implementation. Of particular relevance for the scope of GloBallast are:

Para 31 Jakarta Mandate on the Convention and Sustainable use of Marine and Coastal Biological Diversity of the Convention on Biological Diversity.

Para 33 Stronger mechanisms to secure the implementation of IMO instruments and in particular, development of the International Convention on the Control and Management of Ships’ Ballast Water and Sediments.

Para 34 Assessment of marine and coastal ecosystems

Para 42 Biodiversity and control over invasive species.

The edited text of the Plan of Implementation, together with the Johannesburg Declaration on Sustainable Development will be available on the GloBallast web site in the near future.

A number of side events related to oceans and coasts were attended during the summit including the information session “Synergy among Type II Initiatives on Oceans, Coasts and Islands”. The presentation on GloBallast and the proposed partnerships for regional implementation of the Programme raised a genuine interest among the participants and stimulated immediate response.

The GloBallast initiative was also promoted through the IMO stand in the Waterdome Exhibition. A large number of awareness materials were distributed during the five days of the event.

Of particular interest for the objectives of GloBallast was the participation in the Conference “Trading Risks – How to Combat the Spread of Invasive Species”. The presentation on the GloBallast Programme was very well received by an unexpectedly large audience, which included administrators, scientific communities, donors and UN Agencies.

Action requested

The Global Task Force is invited to take note of the above information and the Country Focal Points and the Country Focal Point Assistants are encouraged to refer to the WSSD documents in their future activities.

Appendix 1: List of Participants

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Appendix 2: Minutes of the Meeting

Monday 28 October

Conference Room, Hotel Asia, Beijing

Bilateral meetings were held between PCU and the Pilot Countries regarding current operational and administrative matters. The meetings were also attended by the UNDP-GEF representative and by IMO, Administrative Division representative.

Informal discussions and exchange of experience between countries were organized in parallel for CFPs and CFPAs not attending the bilateral meetings.

Tuesday 29 October 2002

Conference Hall, Hotel Asia, Beijing

The opening session was addressed by:

- Captain Liu Gongchen, Executive Director General, Maritime Safety Administration, People's Republic of China;
- Mr Andrew Hudson, Principal Technical Advisor, International Waters and POPS, United Nations Development Programme, Global Environment Facility; and
- Captain Dandu Pughiuc, Chief Technical Adviser, GloBallast, IMO.

Under administrative matters the participants agreed to have as co-chairmen of the 4th GPTF Meeting Mr Zheng Heping, Deputy Director General, China Maritime Safety Administration and Country Focal Point for China and Mr Andrew Hudson, UNDP, GEF. Mr Hudson agreed to chair the first sessions of the meeting. A secretariat coordinated by the PCU Administrative Assistant and supported by representatives of China Maritime Safety Administration was established for the duration of the meeting.

Agenda Item 1: Adoption of the Agenda

The representative of Friends of the Earth International (FOEI) proposed adding a specific item on the provisional agenda for the discussion of the report of MEPC 48 regarding the status of the International Convention for the Control and Management of Ships' Ballast Water and Sediments.

The PCU informed that a briefing paper on GloBallast's participation in the World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa from 26 August to 4 September 2002, would be presented under Agenda Item 15, Other Business.

The agenda was adopted with the above proposals.

Agenda Item 2: PCU Progress Report

A Progress Report was presented by the PCU covering the period 1 January to 30 October 2002. This is contained in Briefing Paper GPTF 4/2. Most of the speakers congratulated the PCU for the progress made in 2002 and expressed appreciation for the huge volume of work accomplished with the limited human resources available.

South Africa and the session Chairman noted that it appeared from the Progress Report that the PCU was providing assistance to the international community at large and cautioned on situations where

the recipients might be developed countries, if GEF resources were being used. The participants inquired about the contribution of IMO to ballast water issues and about the existence of expertise in the IMO Secretariat. It was explained that meetings attended by the Technical Adviser, outside of the core GloBallast workplan were by direct invitation, were funded by the organizers and his salary is paid by IMO from the regular budget of the Organization. GloBallast resources are not used for this purpose. Participation in the events mentioned in the Progress Report is seen by the PCU as both intelligence gathering and as dissemination of expertise and lessons learnt being, therefore, a win-win situation. Many benefits had accrued to the GloBallast Programme from participation in “external” activities including securing additional resourcing, development of beneficial partnerships and direct benefits to the Pilot Countries. The session Chairman encouraged the PCU to promote “North-South exchanges and to avoid situations where the recipients are dominated by the “North”.

South Africa also requested more information about the intended Workshop in East Africa and emphasized the need for their direct involvement from the earliest stages. It was explained that the PCU had only had preliminary discussions with relevant officers from IMO’s Technical Co-operation Division and the South African Country Focal Point will be informed of future developments as they occur.

The South African CFP also reiterated her view that the budget for the TV Documentary was excessively high and suggested that funds initially allocated for the documentary production could be used for the continuation of the newsletter and other ongoing communication activities. The PCU explained that this was no longer an issue as IMO had vetoed the Documentary (refer Item 13).

South Africa strongly supported the organization of the next GPTF in Iran and suggested that if funds available under budget line 32.06 were insufficient participants could support their costs from budget line 21.02: Support to Develop and Implement National Workplans.

Ukraine supported the proposals by South Africa and, emphasizing the large volume of work done in the PCU, suggested making permanent the additional administrative assistant’s position.

India added its support for the 5th GPTF meeting to be organized in Iran and suggested organizing a series of visits of each Country Focal Point to the other Pilot Countries aimed at benchmarking the implementation process. The PCU explained that a number of activities (e.g. the Port Survey Training in South Africa, the GPTFs in different Pilot Countries, the Brazil Sampling and Port Survey Workshops, the future validation of the training package in Brazil) were organized to allow for exchange of information among CFPs.

Friends of the Earth International (FOEI) expressed their appreciation for the work done during the reporting period and suggested that GloBallast could play an important role in alerting the North about the problems of the South. FOEI also encouraged participation of experts from the Pilot Countries in events related to ballast water in developed countries. He suggested increasing participation of GloBallast in the work of GESAMP and advised the Pilot Countries to nominate their representatives in all the scientific and technical fora related to ballast water. FOEI was of the view that GloBallast should impress more on professional organizations such as the Institute of Marine Engineering, Science and Technology and Naval Architects Society as they will have a major role in the implementation of the future Convention. The representative of FOEI stated that abandoning the idea of a TV Documentary, after securing such impressive external funding, is extremely depressing and a lost opportunity and suggested that possible cooperative alliances with other international bodies involved in invasive species may be explored in the future.

China expressed their gratitude to the PCU for the assistance and guidance provided during the reporting period and informed about a number of operational changes in the national budget to allow for the smooth implementation of the port baseline survey and the risk assessment activities. It was felt that such changes in the limit of the initial amount allocated for the National Workplan are inherent during the implementation process but that they should be reported in due time to the PCU and identified in the revised budget.

China noted that only one representative of the NGOs attended the meeting and recommended that more observers should be invited in the future. The PCU explained that invitation letters had been sent to all the traditional GloBallast partners but that, mainly due to financial constraints, they could not attend.

The Chinese CFPA warned of the need to complete the training package early next year, otherwise the in-country delivery could be jeopardized due to the limited time remaining.

Brazil were of the view that experts from the Pilot Countries should be encouraged to take part in international meetings and to present lectures on ballast water related aspects at a national level. The PCU stated that full support will be given for such initiatives and noted that this had occurred already, particularly for Brazil (meetings in the United States, Singapore and Ecuador).

The session Chairman congratulated the PCU for their efforts and recommended that they focus on the successful completion of the activities included in the PIP. He also suggested to realistically evaluate the time needed to finalize the implementation and to consider, if necessary, further extending the project beyond March 2004, within the current budget.

Agenda Item 3: Country Status Reports, Progress to Date and Forthcoming Activities

All six Pilot Countries prepared high quality PowerPoint presentations and introduced their reports in accordance with the template provided by the PCU. Extensive discussions and exchanges of information took place among the Pilot Countries with regard to the implementation of the various activities. The Country Status Reports are contained in the 4th GPTF Meeting Report.

Brazil provided additional information on the “Golden Mussel” project and informed about the determination of the Brazilian authorities to adopt concrete measures to tackle the problem of invasive species in ships’ ballast water, as they cannot wait for the IMO Convention. Brazil was of the view that there is a continuous time pressure for implementation of the various in-country activities, which were seen as serial with little or no possibility for them to be run in parallel. The representative of the Country Focal Point informed about some difficulties encountered among ships’ crews when filling out the IMO Reporting Forms, and suggested that a revision of the forms could help in the future. Regarding regional cooperation, Brazil informed about the intention to convene a Conference inviting six Latin American countries. The PCU advised that the regional strategy should be clearly defined and Brazil should learn from the experience of other Pilot Countries.

China emphasized the success of the awareness campaign at national level and presented a very clear percentage assessment of the various activities of the National Workplan. The PCU encouraged the other Pilot Countries to use similar reporting methods and advised China to increase horizontal cooperation with all the organizations represented in the Country Project Task Force and, in particular, with the State Oceanic Administration (SOA). The Chinese GloBallast team identified some difficulties related to translation from English due, mainly, to the scarcity of translators with technical knowledge of shipping and marine biology terms. China was congratulated on its focus on a Flag State approach and encouraged to complete the activity regarding the Red-Tide reporting for ships’ captains as soon as possible.

India informed about their successful awareness activities in the coastal states of Maharashtra and Goa, to the fishing community, schools and college students, teachers as well as people’s representatives. The CFP has informed that Indian shipping companies are taking considerable interest in the Ballast Water Management Plan for their ships plying in international waters. The Country Focal Point has also taken an initiative and is in touch with their premier Indian Institute of Technology to conduct research on their behalf for the treatment of ships’ ballast water. During the course of the presentation the CFP India highlighted the future programme (i.e. 2003), wherein he mentioned that India is going to organize a legal workshop on Ballast water policy and legislation in India. At that time the PCU mentioned that since South Africa had carried out a similar workshop a copy of the documents could be collected from South Africa for necessary information. FOEI drew

attention to the scrapping of ships and the threat posed by their ballast water and sediments in particular. Reacting to the FOEI's comment on ballast water and sediment, the Country Focal Point informed that Alang Port is also sending the Ballast Water Reporting Form and that in future ballast water management measures would be taken into consideration. The session Chairman advised that the achievements of the Indian GloBallast Team should be shared through the already established national web site.

The Country Focal Point Assistant from the Islamic Republic of Iran introduced the status report on behalf of the Country Focal Point who was not able to attend. He informed about the growing concern of Iranian authorities regarding invasive species in the Caspian Sea and about the commitment of relevant Governmental Agencies to continue the activities at the Khark Island demonstration site and to initiate urgent response activities in the Caspian ports. He also informed about some minor reallocation of funds recommended by the Country Project Task Force. Iran was advised to accelerate the twinning activities and FOEI congratulated the Iranian team for their substantial progress in regional replication in the ROPME Sea Area. Iran reiterated their offer to host the next GPTF meeting. The PCU explained that, being the last meeting in GloBallast's lifetime, IMO felt that it would be useful to have the 5th GPTF in IMO and noted that the initial budget only provided for three GPTF meetings.

Noting the suggestions regarding the 5th GPTF put forward by the PCU, South Africa proposed that the 5th GPTF still be held, as planned, in Iran during the summer of 2003 and that a wrap-up GPTF meeting be scheduled for January 2004 at IMO Headquarters in London, UK. Participants could cover their costs from budget line 21.02, Support to Develop and Implement National Workplans. Iran recommended September 2003 as the most appropriate timing for the 5th GPTF. Most of the participants including the representative of the UNDP/GEF supported the proposal by South Africa.

In their presentation South Africa informed about the intention to focus on regional activities and about the need of closely coordinating with the PCU for the proposed Workshop organized together with IMO's Technical Cooperation Division. South Africa was of the view that it would have been unrealistic to attempt to cover the whole continent and limited their regional activities to the East African countries, members of the Nairobi Convention and the area covered by the Benguela Current Project (BCLME) on the West Coast. At their express request Zambia was included in the targeted countries for regional replication, even though it is a landlocked country. Invitations for the first regional meeting scheduled for February 2003 have already been sent and the PCU was requested to use direct intervention by IMO to expedite the nomination of participants. The Country Focal Point valued the opportunity to attend the Regional Workshop in China and to apply possible lessons learnt in her region. South Africa also informed about the growing interest of the local research and development community in alternative methods of treating ballast water on board. The PCU encouraged specific initiatives regarding research and development, which were manifested on the occasion of the WSSD Water Dome Exhibition in Johannesburg. South Africa was congratulated on its initiative to develop a manual on phytoplankton and was advised to work closely with the Nairobi Convention Secretariat for the regional activities. The PCU informed of their initial contacts with the BCLME Coordination Unit and of the intention of the BCLME Chief Technical Adviser to visit IMO in November to explore further possibilities for cooperation on ballast water related issues.

Ukraine informed about the changes currently undertaken by the Lead Agency and the Ministry of Transport and the ongoing process to review national legislation related to shipping and the protection of the marine environment. The Country Focal Point stressed that many activities were conducted with support from the Ukrainian Government as an in-kind contribution. He also informed about the participation of the GloBallast team in national events regarding shipping and the marine environment and expressed his intention of increasing their presence at a regional level. The PCU encouraged this approach and offered, if necessary, to directly participate in such meetings to emphasize the importance of ballast water issues in the Black Sea region. Ukraine was congratulated for the documentaries produced and advised to accelerate the implementation process as the national budget is underspent. Ukraine was also encouraged to continue the institutionalisation of ballast water

measures to ensure sustainability of the process after the completion of the current phase of GloBallast.

The session Chairman congratulated all the presenters on the quality of their presentations and noted the effectiveness of this practice in terms of exchanging information and sharing lessons learnt. He also noted the informative poster exhibition organized in the conference hall for the duration of the meeting and commended the Country Focal Points on the quality of the awareness materials produced. From the UNDP/GEF point of view he advised all the Pilot Countries to accelerate the implementation process, to make realistic evaluations of the remaining time-frame and to consider, if necessary, further extension of the current phase to complete all the activities included in the National Work Plans and the PIP and to bridge the gap until the adoption of the Convention.

Three videos, produced by India, Iran and Ukraine, were projected during the meeting and all the participants appreciated the quality of these products. Copies of the videos in DVD format were offered to all participants.

Computer software developed by Iranian experts was also presented in one of the tea breaks. The software named Ballast Water Records Analyst was designed to ease the work of people involved in the processing of IMO Ballast Water Reporting Forms and participants were invited to send their requests for copies of the software direct to the GloBallast team in Iran.

The PCU reminded all Country Focal Points and Country Focal Point Assistants of the need to clearly identify all contributions, both in-kind and cash, made by the respective Governments to the Programme and to advise accordingly for the overall compilation of co-financing with Governments.

Agenda Item 4: Mid-term Evaluation Report

A comprehensive presentation of the findings of the Mid-Term Evaluation (MTE) was given by Dr David Vousden on behalf of the independent evaluation team. The presentation focused on project design, its implementation and impacts, and reviewed the seven main components in the Project Implementation Plan (PIP). Each component was briefly assessed and rated accordingly. Special attention was given to the assessment of GEF criteria and a set of conclusions and recommendations was introduced in the final part of the presentation together with a summary of MTE findings. The evaluators congratulated the Country Focal Points, their Assistants and the PCU on an overall MTE assessment of “Good” to “Impressive” and for achieving so much in such a short time. The MTE will be available as a separate report.

The session Chairman invited all the participants to review the PowerPoint presentation, to be circulated in hard copy by the Secretariat during the evening, and to comment on the findings of the evaluation in the first session of the second day. The meeting was adjourned at 6.10pm.

Wednesday 30 October 2002

Meeting commenced 09:00

Agenda Item 4: Mid-term Evaluation Report Continued

A number of participants identified areas where they felt that additional information could help the evaluators to obtain a more accurate picture of some of the activities. FOEI was of the view that regional cooperation was in some regions an outstanding success and this particular component may need to be reviewed. India commented that there was insufficient time to review the presentation and that more detailed responses could perhaps be provided by e-mail.

PCU commented that in the Black Sea and ROPME Sea Area regional Strategic Action Plans (SAP) have been adopted or endorsed by all the countries in the respective regions and are ready for implementation. Similar developments will start in the very near future in East Asia and the remaining countries will follow early next year. The PCU also stressed the fact that UNDP Country Offices were constantly informed of the various activities in the respective countries, being invited to attend all major events. It was noted that some support was made available by the UNDP Country Office of Iran and continuous assistance was provided by the UNDP Country Office of China, whose representative attended all CPTF meetings. Many lessons and best practices from GloBallast have already been transferred to other regions, and even to developed countries, and more lessons will be made available internationally after completion of the technical activities. In order to save time, the PCU provided the evaluators with a list of comments and additional information on some of the activities undertaken to date.

Regarding the project design, Iran stated that the initial Terms of Reference were, in some cases, not clear. However, due consideration should be given to the fact that in most of the fields related to ballast water the activities were totally new, with minimal or no previous experience available. In many cases the project staff and the CFPs had to “pioneer” and actually “write the book” as no internationally accepted models were available. As this was particularly time consuming and delayed some of the activities, in the event of further postponement of the Convention, Iran proposed that countries should consider extension of the project beyond March 2004.

Related to awareness raising at the executive level some countries (e.g. India, South Africa) were of the view that there is still a need to address this issue whereas other countries, Ukraine and Iran, informed that the ballast water problem is well known at the ministerial level and even at the level of the President’s cabinet (in Iran). China was of the view that although none of IMO’s Guidelines had received so much attention before a lot of horizontal coordination was still needed. They felt that MARPOL implementation had been easier and were confident that the adoption of the Ballast Water Convention would simplify the implementation of ballast water management and control measures. Brazil had endeavoured to institutionalise the GloBallast activities and to ensure sustainability at the Federal level.

Regarding research and development activities, most of the Pilot Countries felt that increased involvement of local experts was needed and recommended consequent funds reallocation. India informed that the 1st National Research and Development Symposium managed to synergize the scientific community and the Government will carry on from there. The evaluators cautioned on using GEF funds for research and advised that such activities should bring global advantages and be co-funded and co-financed by the respective Governments.

The session Chairman summarized the discussions and requested that the evaluators re-visit such topics as: mechanisms for capturing lessons and best practices, regional replication, use of research and development, awareness at the top decision-making level and information clearing house mechanisms which might be better reflected in the evaluation. He proposed allowing two weeks for the evaluators to finalize their report and another two weeks for the countries to review the report and provide additional information if needed. He requested that PCU print and disseminate the Mid-Term Evaluation after the fine-tuning of the Final Report with the countries.

Agenda Item 5: Risk Assessment

The PCU presented a paper on this subject informing that the consultancy is progressing well and it is hoped to have all in-country work completed by December 2002 and the reports finalized by February 2003. The PCU also informed about the on-going negotiations with the Australian authorities to organize a wrap-up risk assessment workshop in Australia later next year. Brazil commented that a Risk Assessment Manual would be useful in the future.

Agenda Item 5(a): Status of the International Convention for the Control and Management of Ships' Ballast Water and Sediments

The PCU briefly introduced progress made during the Intersessional Meeting of the MEPC Ballast Water Working Group and focused on the decision of MEPC 48 to continue to discuss ballast water topics in an Intersessional Meeting of the Working Group in March 2003 and to finalize the draft text during MEPC 49 in July 2003. It was explained that this course of action will require six months for circulation of the Diplomatic Conference documents which will shift the adoption of the Convention to January-February 2004. The PCU distributed the draft text of the Convention, as in document MEPC 48/WP.15, to all the participants and the session Chairman invited comments from the members of the GPTF who attended the meetings in London.

Iran was of the view that ballast water treatment standards were not totally meaningful and needed further discussions.

South Africa commented that the text of the Convention is written from the perspective of ships, applies to ships, and that the position of the Coastal State has been omitted.

The evaluators commented that IMO is the UN specialized agency responsible for maritime safety and the prevention of pollution from ships and that the ballast water Convention is about ships.

FOEI informed about the concern of some members of the Working Group that in some areas ballast water exchange could not be an option and encouraged the Pilot Countries to submit papers for discussion by the coming Intersessional Meeting of the Working Group. He also expressed the view that GloBallast can significantly contribute to the development of the necessary guidelines for the implementation of the anticipated Convention.

Brazil expressed some reservations regarding the suggestion that the Convention would be adopted in 2004, since conception, technical, scientific, legal and political problems still exist and are very complex, and they could shift, once again, the dates for the Diplomatic Conference.

The evaluators supported the idea of more input from GloBallast to MEPC.

Agenda Item 6: NGO/Industry Information Papers Regarding Involvement in the Ballast Water Issue

FOEI briefly introduced a number of papers on ballast water issues, presented on various occasions, and recommended the precautionary approach as being perhaps the only policy that could successfully address the ballast water problem. FOEI also drew the attention of the participants to the translocation of fish diseases, which may have devastating impact on local economies and even on human health. Finally, FOEI recommended the closer cooperation of GloBallast with maritime professional associations both at the national and global level.

Agenda Item 7: Information on the Proposed IMO/Pilot Countries MoUs

The PCU presented a paper on this subject and advised the Brazilian delegates of the need to review the proposed draft MoU, to adapt it to reflect the position of the Ministry of the Environment and to submit the revised draft to IMO.

Brazil informed that the Ministry of the Environment has concluded a number of memoranda with UNEP but never with IMO. It was suggested that being the official counterpart of IMO in Brazil the Navy should be involved in this process.

India informed about some difficulties in concluding the MoU, as it was not totally clear how the document would benefit the implementation of the project in India. The Indian Country Focal Point was of the view that at this stage the successful completion of GloBallast in India would not be affected by the existence of such a document.

The session Chairman explained that the letters of endorsement produced by the Pilot Countries at the inception of the project should not be seen as substitutes for the MoUs nor as actually signing the Project Document. He commented that perhaps in order to avoid such situations in future the recipient countries could sign the Project Document before the commencement of the implementation process.

Agenda Item 8: Port Baseline Surveys

The PCU presented a paper on this subject and advised Pilot Countries to submit their final reports by December 2002 using the 'standard report format' provided as an Annex to the briefing paper (GPTF 4/8). Participants were encouraged to implement long-term monitoring programmes in their ports and to share their experience with neighbouring countries. The PCU informed of the recent agreement with the Brazilian GloBallast team to hold the 1st International Port Survey Workshop in April 2003 in Arraial do Cabo, Brazil. All the Pilot Countries will be constantly updated on the preparation of this event.

Iran, supported by some other speakers, raised the problem of international taxonomists as a number of samples could not be identified with the scientific resources available locally. It was not totally clear whether the Pilot Countries should approach international taxonomists or whether this should be done in a co-ordinated manner by the PCU.

South Africa suggested compiling a list of potential taxonomists, available around the world, and posting this on the GloBallast web site.

It was suggested that this be dealt with on a case-by-case basis directly from the respective countries but carefully observing the national regulations regarding the transport of samples.

It was agreed that all countries would advise the PCU of what taxonomists they had already identified (both national and international) and what they still need.

The PCU advised that delays to the final reports because of un-identified samples should be avoided.

Agenda Item 9: Ballast Water Management Training Package

The PCU presented a paper (GPTF 4/9) on this subject reporting on the status of this activity. The PCU informed about the main objectives and outcome of the Coordination Meeting organized by Train-Sea-Coast Central Support Unit (CSU) and GloBallast in April 2002. During the meeting specific timelines were agreed and modules were assigned to the two Course Development Units (i.e. Train-Sea-Coast Brazil and Train-Sea-Coast Benguela Current). As no evidence of progressing this activity could be produced to date by Train-Sea-Coast Benguela Current, and being seriously concerned about the delay of the training component, PCU requested permission to adopt an emergency solution and to develop modules 1 to 5, as initially assigned to Train-Sea-Coast Benguela Current, through a cooperative effort of Train-Sea-Coast Brazil and Train-Sea-Coast CSU in New York. It was hoped that by doing this the training package would be finalized by December 2002 and first validation could take place in February 2003 in Brazil. It was explained that after the validation in Brazil the rest of the Pilot Countries would still have one year to adapt the course and to have a first delivery as provided in the PIP.

South Africa requested that it be ensured that some up-date mechanism be included in the course development process and that all the CFPs and CFPAAs have a chance to review the modules before the validation.

The session Chairman concluded that the PCU should proceed with this activity as proposed in the briefing paper and any further delays should be avoided.

Agenda Item 10: Compliance Monitoring and Enforcement

The PCU presented a paper (GPTF 4/10) on this subject reminding the participants that the 3rd GPTF recommended using the final draft of the Convention, as agreed by MEPC 48, to develop a generic CME System which could be tailored by each Pilot Country to its needs. As MEPC 48 could not finalize the text of the Convention, and the Diplomatic Conference was shifted to early 2004, the PCU recommended that this activity be rescheduled for the second part of 2003 after MEPC 49.

The PCU also informed the participants about the initiative taken by South Africa to develop a national policy before embarking on the development of a Compliance Monitoring and Enforcement System. A very initial draft of the policy document developed by South Africa was circulated to the participants for their information only and not for further dissemination. Pilot Countries were advised to assess the need to undertake similar approaches and to inform the PCU accordingly.

The session Chairman concluded that the PCU should proceed with this activity as proposed in the briefing paper and encourage the Pilot Countries to explore the need to develop similar policy documents tailored to the specific situation in each country.

Agenda Item 10(a): Ballast Water Sampling

The PCU presented a paper (GPTF 4/10(a)) on this subject reminding the participants of the intention to organize an international workshop in July 2002. For organizational reasons this had been postponed to April 2003. The Pilot Countries will be constantly updated on preparations for the workshop.

FOEI suggested inviting ship-design experts to provide advice as to how best to access ballast water tanks for optimum sampling.

Agenda Item 11: Regional Cooperation and Replication

The PCU presented a comprehensive paper (GPTF 4/11) on this subject and informed the countries of the progress made in the Black Sea, the Baltic Sea and the ROPME Sea Area. The PCU also briefed the participants on regional activities stimulated by GloBallast in other regions of the world.

Brazil, India and South Africa welcomed the opportunity of observing the proceedings of the 1st Regional Workshop on Ballast Water Management and Control for East Asia and informed of their intentions to tackle this component.

India was of the view that preparatory visits in neighbouring countries would be more appropriate for the South Asian region and informed that four countries had already responded to the initial letters. The PCU was requested to send letters of support for this activity to Thailand and Malaysia and to urge them to nominate their counterparts (Country Focal Points). The CFP for India requested advice as to whether to approach Pakistan given the current relations between the two countries.

The PCU advised that when using existing regional mechanisms all the member states should be approached. However, the PCU suggested keeping the number of countries involved to a manageable level in order to agree on a regional Strategic Action Plan (SAP) that could be successfully implemented at the regional level. The PCU also advised that during the preparatory visits the draft regional SAP should be agreed in principle with all the regional partners and, therefore, copies of the document should be provided in advance for proper consideration by all the countries in the region.

South Africa informed about their intention of approaching the Nairobi Convention Member States on the East Coast and the BCLME Countries (Namibia and Angola) on the West Coast. South Africa was of the view that having a Regional Workshop might be the best approach and emphasized the need to co-ordinate with PCU for the workshop planned with funding from IMO's Technical Co-operation Division.

The session Chairman welcomed the progress made by Ukraine, Iran and China and encouraged the other countries to accelerate the implementation of this activity. The PCU was requested to assist in every respect the regional replication and to play a catalytic role in facilitating further communication.

Agenda Item 12: Resourcing and Financing

The PCU presented a paper (GPTF 4/12) on this subject informing about the additional co-financing secured to date and about the prospects for the near future. The PCU reminded delegates that a strategy for co-funding during and beyond the life of the Programme was needed at country level developed by each Country Focal Point.

The evaluators drew the attention of the participants to the importance of co-funding in GEF projects and suggested that the proposed Donor Conference should endorse co-funding strategies and cost recovering mechanisms during and beyond the duration of GloBallast. They also suggested that a paper reviewing the financial mechanisms used for other GEF projects may help the organization of a successful Donor Conference.

The session Chairman concluded that the PCU should proceed with this activity and explore the possibility of using the expertise available in a number of international funding institutions to organize the Donor Conference.

Agenda Item 13: TV Documentary

The PCU presented a paper (GPTF 4/13) on this subject briefly informing about the progress made since the last GPTF, the fact that up to US\$600k+ in external funding had been negotiated and of the decision of IMO not to embark on such an endeavour at this moment.

Some of the participants found IMO's decision depressing and were of the view that it was a lost opportunity to promote the organization at a global level. South Africa questioned that IMO was able to veto a project activity as a principle, but shared the view expressed by some other countries that GloBallast already had a good "nucleus" of videos which could be used to produce a global documentary which could be disseminated to the interested parties.

The evaluators commented that a documentary totally dedicated to ballast water might end by targeting a limited audience.

The PCU Technical Adviser outlined the objectives, values and global benefits of the documentary, the fact that it could reach a global audience of 600 Million + (hardly limited), and the negative impacts of IMO's decision to veto it.

The session Chairman concluded that during the GPTF meeting a number of national videos were presented and suggested that GloBallast could consider joining forces with IUCN, GISP and other interested organizations to develop a documentary on invasive species in general.

Definitive closure was not achieved on this issue.

Agenda Item 14: GloBallast Advanced

The PCU presented a paper (GPTF 4/14) on this subject informing that, based on the initial discussion paper and comments provided during the 3rd GPTF, the PCU had developed a Concept Paper according to the template provided by UNDP/GEF. The Concept Paper was circulated electronically one week before the 4th GPTF and the participants were invited to comment on it as appropriate. It was explained that the Concept Paper, once cleared by IMO and UNDP, will be submitted to the GEF Secretariat before 31 January 2003 for their consideration during the GEF quarterly meeting in February 2003. If there is a favourable response from the GEF, the PCU suggests identifying

appropriate experts to further develop the Concept Paper into a formal Project Document for submission to the GEF Council in Autumn 2003.

Some countries expressed the view that there was insufficient time to properly review the document and requested an extension of the deadline established for comments. They also inquired as to how the replication phase would work at the regional level and about the intention of including demonstration sites in other regions.

The PCU re-affirmed the widely accepted principle that the problem of invasive species calls for concerted action of all the countries in a region. Efforts made by countries in isolation will not solve the problem and, in some cases, the already scarce resources will be wasted on unilateral actions with minimal to no benefits for the coastal and marine environment. A scenario for the replication phase would include a regional SAP, as the framework for the regional activities, and a regional officer hosted by one of the existing regional mechanisms to assist in the implementation of the plan by the countries of the region. This new phase will focus on the dissemination of the lessons learnt and on capacity building at the regional level using the expertise already created in the initial six Pilot Countries (e.g. Risk assessment will be conducted in one country of the region by experts already trained by the project and specialists from all the other countries will be invited to attend; port surveys will be organized in another country of the region by the specialized team trained by GloBallast and relevant port people from the countries of the region will be the beneficiaries of the “hands-on” training). The PCU further commented that it was intended that additional regions would be included subject to a clear commitment from the respective regional mechanisms/ organizations and subject to securing additional funds from alternative sources and donors.

Brazil expressed the view that some parts of the Concept Paper were, to some extent, paternalistic and indicated that the Government had allocated significant funds to the ballast water issues and plans to initiate regional cooperation through existing mechanisms in South America (e.g. MERCOSUR). Brazil requested that the PCU consult further with the CFP regarding regional cooperation in South America.

FOEI was of the view that, due to their involvement in the GloBallast Project, the Pilot Countries had become truly advanced and, in many cases, now took the lead in matters relating to invasive species in ships’ ballast water, however the rest of the developing countries may be far behind and need substantive support to catch up with the rest of the world.

The session Chairman advised that if countries have the ballast water problem under control, then GEF intervention might not be needed and the already limited resources could be channelled towards other regions. He explained that after the completion of the pilot phase (demo project) the GEF would be interested to see mechanisms for replications of the lessons learnt and capacity building and not additional demonstration sites. He also explained that the GEF Secretariat would welcome endorsements supporting the replication phase from regional organizations such as the Istanbul Commission, ROPME or PEMSEA and emphasized the need to focus the regional efforts on the rapid implementation of the coming Convention. He noted the interest of the Pilot Countries in a regional replication phase of GloBallast and advised extending the time limit for comments from the participants to 1st December 2002. Finally, he requested the PCU to consolidate the comments regarding the Concept Paper and to submit a final draft before the end of the year.

Agenda Item 15: Other Business

The PCU presented a paper on GloBallast’s participation in the World Summit on Sustainable Development (WSSD), organized in Johannesburg, South Africa from 26 August to 4 September 2002, and emphasized the excellent response of the international community to the problem of invasive marine species transferred in ships’ ballast water.

FOEI commented on the relevance of the Barbados Convention and the importance of small islands in addressing ballast water issues.

The session Chairman acknowledged the importance of the WSSD and drew the attention of the participants to Paragraph 33 of the "Plan of Implementation" urging the international community to develop measures to address invasive species in ships' ballast water and to implement the ballast water Convention.

Other Matters

Most of the Pilot Countries felt that participation in the Intersessional Meeting of the Ballast Water Working Group and MEPC 49 was particularly important for the adoption and rapid implementation of the ballast water Convention. Some countries shared the view that national scientists involved in the GloBallast Programme could contribute to the further development of the text at this crucial stage.

The evaluators, supported by FOEI, suggested that the need to capture the best practices developed by GloBallast could be best served by attending international meetings such as the Ballast Water Working Group and MEPC. The PCU was advised to send formal invitations, which may help to leverage the necessary resources for attendance.

The PCU suggested that having the 2nd Ballast Water Treatment Research and Development Symposium just before MEPC 49 in July could facilitate increased attendance.

The session Chairman informed that under certain conditions, where States could not otherwise attend important international meetings, their participation was supported by GEF projects. He acknowledged the general agreement on the proposal to bring technical inputs to the Ballast Water Working Group and the MEPC and recommended further coordination to identify the mechanism to do this. The Chairman summarized the discussion on the future time schedule by stating that the 5th GPTF will take place in the Islamic Republic of Iran in September 2003 and a final meeting will be held in IMO's Headquarters in February/March 2004, preferably in conjunction with the anticipated Diplomatic Conference. The PCU was requested to revise the budget and to re-allocate funds for the newly proposed activities.

The FOEI, supported by most of the other participants, expressed appreciation for the extremely productive meeting and gratitude to the China Maritime Safety Administration and the Chinese Government for the warm hospitality extended to the participants. He also thanked the Chairmen for learned guidance, patience and good humour.

The PCU informed that the 4th GPTF Minutes will be circulated in two weeks time to all the participants to ensure that their statements were properly reflected and the proceedings of the meeting will be published at the beginning of December 2002, following the style of the GloBallast Monograph Series. The Pilot Countries were encouraged to provide their inputs to the Concept Paper for the regional replication phase and to submit their proposals for the revised budget with a clear indication of the funds reallocated for the additional activities to be included in Revision E after receiving the audited figures for 2002 expenditure. The PCU thanked all participants for their contribution to the successful completion of the meeting and, in particular, China for the dedication of the support team from China MSA.

The session Chairman congratulated everyone for their impressive accomplishments in the given timeframe and highlighted that GloBallast is a flagship of the UNDP International Waters portfolio. He thanked the PCU and the Chinese Government for the effective organization of the meeting and expressed his personal satisfaction to have served as Chairman.

Appendix 3: Draft Text of the Convention



MARINE ENVIRONMENT PROTECTION
COMMITTEE
48th session
Agenda item 2

MEPC 48/WP.15
10 October 2002
Original: ENGLISH

HARMFUL AQUATIC ORGANISMS IN BALLAST WATER (WG)

Report of the Ballast Water Working Group

This document contains the revised draft of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, as instructed by the Committee and based on the text contained in document MEPC 48/WP.2/Add.1.

Action request of the Committee

The Committee is requested to consider the attached text with a view to advising Council concerning the organization of a diplomatic conference.

ANNEX

DRAFT INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS

THE PARTIES TO THE CONVENTION,

RECALLING that Article 196(1) of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) provides, that “States shall take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control, or the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto,”

NOTING the objectives of the 1992 Convention on Biological Diversity (CBD) and that the transfer and introduction of harmful aquatic organisms and pathogens via ships' ballast water threatens the conservation and sustainable use of biological diversity as well as decision IV/5 of the 1998 Conference of the Parties (COP 5) to the CBD concerning the conservation and sustainable use of marine and coastal ecosystems,

NOTING FURTHER that the 1992 United Nations Conference on Environment and Development (UNCED) requested IMO to consider the adoption of appropriate rules on ballast water discharge,

MINDFUL of the precautionary approach set out in Principle 15 of the Rio Declaration on Environment and Development and referred to in resolution MEPC.67(37) and adopted by MEPC on 15 September 1995,

ALSO MINDFUL that the 2002 World Summit on Sustainable Development, in paragraph 33(b) of its Plan of Implementation, calls for action at all levels to accelerate the development of measures to address invasive alien species in ballast water,

RECOGNIZING the importance placed on this issue by the Organization through the adoption of two Assembly resolutions, A.774(18) in 1993 and A.868(20) in 1997, to address the transfer of harmful aquatic organisms and pathogens,

CONSCIOUS that the uncontrolled discharge of ballast water and sediments from ships has led to the transfer of harmful aquatic organisms and pathogens, causing injury to public health and damage to property and the environment,

RECOGNIZING FURTHER that several States have taken unilateral action with a view to prevent, minimize and ultimately eliminate the risks of introduction of harmful aquatic organisms and pathogens through ships entering their ports, and also that this issue, being of worldwide concern, demands action based on globally applicable regulations together with guidelines for their effective implementation and uniform interpretation,

DESIRING to continue the development of safer and more effective Ballast Water Management options that will result in continued prevention, minimization and ultimate elimination of the transfer of harmful aquatic organisms and pathogens,¹

¹ This paragraph is the recommended location for any text moved into the Preamble per footnote 2.2 below.

[**{Option 1}**] BEARING IN MIND, therefore, the need to control and manage the discharge of ballast water and sediments from ships to avoid harmful effects to the environment or human health, which may require action to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens, and to avoid injury to public health and damage to property and the environment, {OR}

{**Option 2**} RESOLVED to minimize risks to the environment and human health arising from the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments, including possible side effects from that control, and to encourage and utilize developments in knowledge and technology so as to eliminate risk, {OR}

{**Option 3**} RESOLVED to prevent, minimize and ultimately eliminate risk to the environment and human health arising from the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments, as well as to avoid unwanted side effects from that control and to encourage developments in related knowledge and technology,]

HAVE AGREED as follows:

Article 1 *Objective*

[The objective of this Convention is to minimize risks to the environment and human health arising from the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments, including possible side effects from that control, in accordance with the provisions contained herein, and to encourage and utilize developments in knowledge and technology so as to eliminate risk.]

[The objective of this Convention is to prevent, minimize and ultimately eliminate risk to the environment and human health arising from the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments, in accordance with the provisions herein, as well as to avoid unwanted side effects from that control and to encourage developments in related knowledge and technology.]

Article 2 *Definitions*

For the purpose of this Convention, unless expressly provided otherwise:

1 "Administration" means the Government of the State under whose authority the ship is operating. With respect to a ship entitled to fly a flag of any State, the Administration is the Government of that State. With respect to fixed or floating platforms engaged in exploration and exploitation of the sea-bed and subsoil thereof adjacent to the coast over which the coastal State exercises sovereign rights for the purposes of exploration and exploitation of their natural resources, the Administration is the Government of the coastal State concerned.

2 "Ballast Water" means water with its suspended matter taken on board a ship to control trim, list, draught, stability or stresses of a ship.

3 "Ballast Water Management" means mechanical, physical, chemical, and biological processes, either singularly or in combination, to remove, render harmless, or avoid the uptake or discharge of harmful aquatic organisms and pathogens within ballast water and sediments.

4 "Gross tonnage" means the gross tonnage calculated in accordance with the tonnage measurement regulation contained in Annex I of the International Convention on Tonnage Measurement of Ships, 1969 or any successor Convention.

5 "Harmful Aquatic Organisms and Pathogens" means aquatic organisms or pathogens which, if introduced into the sea including estuaries, or into fresh water courses, may create hazards to human health, harm to living resources and aquatic life, damage to amenities, impairment of biological diversity or interfere with other legitimate uses of such areas.

6 "Organization" means the International Maritime Organization.

7 "Secretary-General" means the Secretary-General of the Organization.

8 "Sediments" means matter settled out of ballast water within a ship.

9 "Ship" means a vessel of any type whatsoever operating in the marine environment and includes submersibles, floating craft and fixed or floating platforms, floating storage units (FSUs) and floating production storage and off-loading units (FSPOs).

10 "Convention" means the International Convention for the Control and Management of Ships' Ballast Water and Sediments

11 "Committee" means the Marine Environment Protection Committee of the Organization.

Article 3 *General Obligations*

1 Each Party undertakes to give full and complete effect to the provisions of this Convention, the Annex, and its Appendices in order [to avoid harmful effects to the environment or human health, which may require action] to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments.²

2 The Annex and its Appendices form an integral part of this Convention. Unless expressly provided otherwise, a reference to this Convention constitutes at the same time a reference to the Annex and its Appendices.

[3 Nothing in this Convention shall be interpreted as preventing a Party from taking, individually or jointly, more stringent measures with respect to the prevention, reduction or elimination of the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments, consistent with international law. [A Party requiring more stringent measures shall seek approval from the Organization, on the basis of clear evidence that adequate reception facilities or other means are provided to assist ships holding an International Ballast Water Management Certificate under this Convention to meet the more stringent standards.]]³

4 Parties shall endeavour to co-operate for the purpose of effective implementation, compliance and enforcement of this Convention.

² The following options have been identified for revising this text:

1. Retain the text as drafted, making a decision on the bracketed text, which has been incorporated into the Preamble, if Options 2 or 3 in the Preamble are adopted.
2. If Article 1 remains as drafted, delete all text after the word "Appendices" and replace with "in order to achieve the objectives in Article 1 of this Convention."
3. If the text in Article 1 is moved to the Preamble, delete all text after "Appendices" and include the operative language from Option 2 or 3 of the Preamble, as appropriate.

³ To be revisited in light of the Tier-Two requirements being developed.

5 The Parties undertake to encourage the continued development of Ballast Water Management and standards [to avoid harmful effects to the environment or human health, which may require action] to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediments.

Article 4 *Application*

1 Except as expressly provided otherwise in the Convention, this Convention shall apply to:

- (a) ships entitled to fly the flag of a Party; and
- (b) ships not entitled to fly the flag of a Party but which operate under the authority of a Party.

2 This Convention shall not apply to:

- (a) ships not designed or constructed to carry ballast water;
- (b) ships of a Party which operate exclusively in waters under the jurisdiction of that Party, provided such exemptions do not impair or damage the resources of adjacent or other States⁴;
- (c) ships of a Party which operate exclusively in waters under the jurisdiction of another Party, subject to the authorization of the latter (coastal) Party for such exemption, provided such exemptions do not impair or damage the resources of adjacent or other States⁵. Any Party not granting such authorization shall notify the Administration of the ship concerned that this Convention applies to such ship;
- (d) except for ships not granted exemptions pursuant to subparagraph (c), ships which operate exclusively in waters under the jurisdiction of one Party and on the High Seas, provided such exemptions do not impair or damage the aquatic resources of adjacent or other States⁶.

3 This Convention shall not apply to any warship, naval auxiliary or other ship owned or operated by a Party and used, for the time being, only on government non-commercial service. However, each Party shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with this Convention.

4 With respect to ships of non-Parties to this Convention, Parties shall apply the requirements of this Convention as may be necessary to ensure that no more favourable treatment is given to such ships.

Article 5 Control of the Transfer of Harmful Aquatic Organisms and Pathogens Through Ships' Ballast Water and Sediments

Each Party shall require that each of its ships referred to in Article 4(1) comply with the requirements set forth in this Convention, including the standards and requirements in the Annex(es), and shall take effective measures to ensure that such ships comply with those requirements.

⁴ This text is subject to verification with relevant UNCLOS texts.

⁵ This text is subject to verification with relevant UNCLOS texts.

⁶ This text is subject to verification with relevant UNCLOS texts.

[Article 5(bis) Acceptable Ballast Water

1 Acceptable ballast water is Ballast Water which, when discharged in accordance with the provisions of this Convention, should minimize the risk of harm to the receiving environment and human health, complying with the aspects of suitability, practicality, risk assessment, biological effectiveness (including pathogens), adequate cost/benefit ratio, timeframe for practical implementation of solutions and environmental impact of sub-products.

2 The detailed requirements for the criteria that acceptable ballast water should meet are contained in the Annex.]

Article 6 Sediment Reception Facilities

1 Each Party undertakes to ensure as soon as practicable that ports and terminals where ballast water tank cleaning or tank repair work occurs have adequate reception facilities for the reception of Sediments. Such reception facilities shall operate without causing undue delay to ships and shall provide for the environmentally safe disposal of such Sediments.

2 Each Party shall notify the Organization for transmission to the other Parties concerned of all cases where the facilities provided under paragraph 1 are alleged to be inadequate.

Article 7 Scientific and Technical Research and Monitoring

1 The Parties shall:

- (a) [create a system for monitoring][endeavour to monitor] the compliance and effects of Ballast Water Management within their jurisdiction, including the maintenance of records and development of risk assessment, and
- (b) endeavour, individually or jointly, to promote and facilitate scientific and technical research on Ballast Water Management and relevant standards. In particular, such research should include observation, measurement, sampling, evaluation, and analysis of the effectiveness of any potential technology or methodology as well as any adverse impacts caused by such organisms and pathogens that have been identified to have been transferred through ships' ballast water.

2 Each Party shall, to further the objectives of this Convention, promote the availability of relevant information to other Parties who request it on:

- (a) scientific and technology programmes and technical measures undertaken with respect to Ballast Water Management and relevant standards; and
- (b) the effectiveness of Ballast Water Management observed from any monitoring and assessment programmes.

Article 8 Survey and certification

1 A Party shall ensure that its ships described in Article 4(1) and subject to survey and certification are so surveyed and certified in accordance with the regulations in the Annex(es).

[2 A Party implementing additional measures pursuant to Section C of the Annex to this Convention may not require additional survey and certification of a ship of another Party, nor is the Administration of the ship obligated to survey and certify additional measures imposed by another Party. Verification of such additional measures shall be the responsibility of the Party implementing such measures.]

(Articles 9 – 12 are moved to Annex, Section F)

Article 13 *Violations*

1 Any violation of the requirements of this Convention shall be prohibited and sanctions shall be established under the law of the Administration of the ship concerned wherever the violation occurs. If the Administration is informed of such a violation, it shall investigate the matter and may request the reporting Party to furnish additional evidence of the alleged violation. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken as soon as possible, in accordance with its law. The Administration shall promptly inform the Party that reported the alleged violation, as well as the Organization, of any action taken. If the Administration has not taken any action within 1 year after receiving the information, it shall so inform the Party which reported the alleged violation.

2 Any violation of the requirements of this Convention within the jurisdiction of any Party shall be prohibited and sanctions shall be established therefore under the law of that Party. Whenever such a violation occurs, that Party shall either:

- (a) cause proceedings to be taken in accordance with its law; or
- (b) furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred.

3 The penalties provided for by the laws of a Party pursuant to this Article shall be adequate in severity to discourage violations of this Convention wherever they occur.

[Article 14 *Inspection of Ships*

1 A ship to which this Convention applies may, in any port or offshore terminal of a another Party, be subject to inspection by officers duly authorized by that Party. Any such inspection is limited to:

- (a) verifying that there is onboard a valid Certificate, which, if valid shall be accepted; [and/or
- (b) inspection of the Ballast Water Management Record Book, and/or
- (c) a brief sampling of the ship's Ballast Water, carried out in accordance with the guidelines to be developed by the Organization. However, the time required to process the results of such sampling shall not be used as a basis for preventing the [operation,] movement and departure of the ship.]

2 In the case that the ship does not carry a valid certificate or there are clear grounds for believing that:

- (a) the condition of the ship and its equipment does not correspond substantially with the particulars of the Certificate, or
- (b) the Master or the crew are not familiar with essential shipboard procedures relating to Ballast Water Management,

a more detailed inspection may be carried out[, which may include, but is not limited to, inspection of the Ballast Water Management Record Book and a brief sampling of the ship's Ballast Water carried out in accordance with the guidelines to be developed by the Organization. However, the time required to process the results of such sampling shall not be used as a basis for preventing the [operation,] movement and departure of the ship.]

3 If an inspection carried out pursuant to this Article reveals that the ship is not in compliance with the provisions of this Convention, the Party carrying out the inspection shall take such steps as will ensure that the ship shall not sail until it can proceed to sea without presenting unreasonable threat of harm to the environment. That Party may, however, grant such a ship permission to leave the port or offshore terminal for the purpose of proceeding to the nearest appropriate repair yard available.

Article 14(bis) *Detection of Violations and Control of Ships*

1 Parties shall co-operate in the detection of violations and the enforcement of the provisions of this Convention.

2 If a ship is detected to have violated of this Convention, the Party of the flag whose ship is entitled to fly, or in whose port or offshore terminal the ship is operating, may in addition to any sanctions described in Article 13 or any action described in Article 14, take steps to warn, detain, or exclude the ship until the ship does not present an unreasonable threat of harm to the environment or human health. That Party, however, may grant such a ship permission to leave the port or offshore terminal for the purpose of proceeding to the nearest appropriate repair yard or reception facility available.

[3 If the sampling described in [Article 14-1-c / 14 -2] leads to a result, including results received from another port or offshore terminal, indicating that the ships poses an unreasonable threat to the environment, the Party in whose waters the ship is operating may be prohibit such ship from discharging Ballast Water until the threat is removed.]

4 A Party may also inspect a ship when it enters the ports or offshore terminals under its jurisdiction, if a request for an investigation is received from any Party, together with sufficient evidence that a ship is operating or has operated in violation of a provision in this Convention. The report of such investigation shall be sent to the Party requesting it and to the competent authority of the Administration of the ship concerned so that appropriate action may be taken.

Article 14(ter) *Notification of Detentions or Other Actions*

1 If an inspection conducted pursuant to Article 14 or 14(bis) indicates a violation of this Convention, the Master shall be notified and a report, including evidence of the violation, if any, shall be forwarded to the Administration.

2 In the event that any action is taken pursuant to Article 14(3) or Article 14(bis)2 or [3], the officer carrying out such action shall forthwith inform, in writing, the consul or diplomatic representative of the Party whose flag the ship is entitled to fly, or if this is not possible, the Administration of the ship concerned, of all the circumstances in which the action was deemed necessary. In addition, the recognized organization responsible for the issue of certificates shall be notified.

3 The port State authority concerned shall notify all relevant information about the ship to the next port of call, in addition to parties mentioned in paragraph 2, if it is unable to take action as specified in Articles 14(3) or 14(bis)(2) or if the ship has been allowed to proceed to the next port of call.]

Article 15 *Undue Delay to Ships*

1 All possible efforts shall be made to avoid a ship being unduly detained or delayed under Articles 13, [14 and 14(bis)] of this Convention.

2 When a ship is unduly detained or delayed under Articles 13, [14 and 14(bis)] of this Convention, it shall be entitled to compensation for any loss or damage suffered.

Article 16 *Regional Co-operation*

In order to further the objectives of this Convention, Parties with common interests to protect the marine environment in a given geographical area shall endeavour, taking into account characteristic regional features, to enhance regional co-operation including the conclusion of regional agreements consistent with this Convention for preventing and minimizing the transfer of harmful aquatic organisms and pathogens through ships' ballast water. Parties shall seek to co-operate with the Parties to regional agreements to develop harmonized procedures to be followed by Parties to the different agreements concerned.

Article 17 *Communication of information*

1 Each Party shall report to the Organization and, where appropriate, make available to other Parties the following information:

- (a) any requirements and procedures relating to Ballast Water Management, including its laws, regulations, and guidelines for implementation of this Convention;
- (b) the availability and location of any reception facilities for the environmentally safe disposal of ballast water and sediments; and
- (c) any requirements for information from a ship which is unable to comply with the provisions of this Convention for reasons specified in Regulation A-3 of the Annex.

2 The Organization shall notify Parties of the receipt of any communications under the present Article and circulate to all Parties any information communicated to it under subparagraphs (b) and (c) of paragraph 1 of this Article.

Article 18 *Dispute settlement*

Parties shall settle any dispute between them concerning the interpretation or application of this Convention by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements or other peaceful means of their own choice.

Article 19 *Relationship to International Law and Other Agreements*

Nothing in this Convention shall prejudice the rights and obligations of any State under the customary international law as reflected in the United Nations Convention on the Law of the Sea.

Article 20 *Signature, Ratification, Acceptance, Approval and Accession*

1 This Convention shall be open for signature by any State at the Headquarters of the Organisation from [] to [] and shall thereafter remain open for accession by any State.

2 States may become Parties to this Convention by:

- (a) signature not subject to ratification, acceptance, or approval; or
- (b) signature subject to ratification, acceptance, or approval, followed by ratification, acceptance or approval; or
- (c) accession.

3 Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.

Article 21 States With More Than One System of Law

1 If a State comprises two or more territorial units in which different systems of law are applicable in relation to matters dealt with in this Convention, it may at the time of signature, ratification, acceptance, approval, or accession declare that this Convention shall extend to all its territorial units or only to one or more of them to which the application of this Convention has been extended, and may modify this declaration by submitting another declaration at any time.

2 Any such declaration shall be notified to the Depositary in writing and shall state expressly the territorial unit or units to which this Convention applies. In the case of modification, the declaration shall state expressly the territorial unit or units to which the application of this Convention shall be further extended and the date on which such extension takes effect.

Article 22 *Entry into force*

[Text to be developed. Proposals received but not yet considered.]

Article 23 *Amendments*

[Text to be developed. Proposals received but not yet considered.]

Article 24 *Denunciation*

1 This Convention may be denounced by any Party at any time after the expiry of two years from the date on which this Convention enters into force for that Party.

2 Denunciation shall be effected by written notification to the Depositary, to take effect one year after receipt or such longer period as may be specified in that notification.

Article 25 *Depositary*

1 This Convention shall be deposited with the Secretary-General, who shall transmit certified copies of this Convention to all States which have signed this Convention or acceded thereto.

2 In addition to the functions specified elsewhere in this Convention, the Secretary-General shall:

- (a) inform all States that have signed this Convention or acceded thereto of:
 - (i) each new signature or deposit of an instrument of ratification, acceptance, approval or accession, together with the date thereof;
 - (ii) the date of entry into force of this Convention; and

- (iii) the deposit of any instrument of denunciation from this Convention, together with the date on which it was received and the date on which the denunciation takes effect;
- (b) as soon as this Convention enters into force, transmit the text thereof to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

Article 26 *Languages*

This Convention is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

REGULATIONS FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS TO PREVENT, REDUCE AND ELIMINATE THE TRANSFER OF HARMFUL AQUATIC ORGANISMS AND PATHOGENS

SECTION A -GENERAL PROVISIONS

Regulation A-1 *Definitions*

- [1] “New ship” means a ship meeting any one of the following:
- .1 for which the building contract is placed [on or after (January 1st, 2015) *or* [5 years after the entry into force of this Convention]⁷ [whichever is the later date]; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction [on or after (July 1st, 2015) or [5 years and 6 months after the entry into force of this Convention]⁸ [whichever is the later date]; or
 - .3 the delivery of which is [on or after (January 1st, 2018) or [8 years after the entry into force of this Convention] [whichever is the later date]; or
 - .4 which has undergone a major conversion:
 - (a) for which the contract is placed [on or after (January 1st, 2015) or [5 years after the entry into force of this Convention] [whichever is the later date]; or
 - (b) in the absence of a contract, the construction work of which is begun [on or after (July 1st, 2015) or [5 years and 6 months after the entry into force of this Convention] [whichever is the later date]; or
 - (c) which is completed [on or after (January 1st, 2018) or [8 years after the entry into force of this Convention] whichever is the later date.
- 2 “Intermediate ship means a ship, other than a new ship, meeting any one of the following:

⁷ Some delegations felt that a standing date (as in the antifouling convention) would be preferred. Five years after entry into force was chosen to provide sufficient time for the review process envisaged in E-6.

⁸ Regime as in MARPOL annex I (6 months between contract and keel laying, 3 years between contract and delivery).

- .1 for which the building contract is placed [on or after (January 1st, 2005) or [1 year after the entry into force of this Convention] whichever is the later date; or
 - .2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction [on or after (July 1st, 2005) or [1 year and 6 months after the entry into force of this Convention] whichever is the later date; or
 - .3 the delivery of which is [on or after (January 1st, 2008) or [4 years after the entry into force of this Convention] whichever is the later date;
 - .4 which has undergone a major conversion:
 - (a) for which the contract is placed [on or after (January 1st, 2005) or [1 year after the entry into force of this Convention] [whichever is the later date]; or
 - (b) in the absence of a contract, the construction work of which is begun [on or after (July 1st, 2005) or [1 year and 6 months after the entry into force of this Convention] [whichever is the later date]; or
 - (c) which is completed [on or after (January 1st, 2008) or [4 years after the entry into force of this Convention] [whichever is the later date]]⁹;
- 3 “Existing ship” means a ship that is not a new ship nor an intermediate ship.
- 4 “Major conversion” means a conversion of an existing ship:
- .1 which substantially alters the dimensions or carrying capacity of the ship; or
 - .2 which changes the type of the ship; or
 - .3 the intent of which in the opinion of the Administration is substantially to prolong its life; or
 - [.4 which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship.]
- [5 “Ballast Water Discharge Control Area” and “Ballast Water Uptake Control Area” mean sea areas where, for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic, the adoption of special mandatory methods is required for prevention of injury to public health and damage to property and the environment caused by the international transfer of harmful aquatic organisms and pathogens through ballast water. “Ballast Water Discharge Control Area” and “Ballast Water Uptake Control Area” shall include those listed in Regulation C-1 and C-2 of this Annex.]
- 6 “Anniversary date” means the day and the month of each year corresponding to the date of expiry of the International Ballast Water Management Certificate ¹⁰.
- 7 “Certificate” means the International Ballast Water Management Certificate.

Regulation A-2 *General Applicability*

Except where expressly provided otherwise, Ballast Water Management shall be conducted in accordance with this Annex.

⁹ Consideration should be given to identification of ships by type, or generation, or other means suitable for this definition.

¹⁰ Definition may change based on outcome intermediate/annual surveys in Regulation F-1.

Regulation A-3 *Exceptions*

The requirements of Regulation B-3, or any additional measures adopted by a Party pursuant to Section C, shall not apply to:

- 1 the uptake or discharge of ballast water and sediments necessary for the purpose of ensuring the safety of a ship in emergency situations or saving life at sea; or
- 2 the accidental discharge of ballast water and sediments resulting from damage to a ship or its equipment:
 - (a) provided that all reasonable precautions have been taken before and after the occurrence of the damage or discovery of the damage or discharge for the purpose of preventing or minimizing the discharge; and
 - (b) except if the owner, company or officer in charge willfully or recklessly caused damage; or
- 3 the uptake and discharge of ballast water and sediments when being used for the purpose of avoiding or minimizing pollution incidents from the ship; or
- 4 the discharge of ballast water and sediments from a ship at the same location¹¹ where the whole of that ballast water and those sediments originated and provided that no mixing with ballast water and sediments from other areas has occurred.

Regulation A-4 *Exemptions*

[1 A Port State may exempt ships from the requirements of Regulation B-3, paragraph 2, in respect of any single voyage or route following which ballast water will be discharged into waters under its jurisdiction. Any such exemption may only be granted when the risk to the marine environment is evaluated in accordance with guidelines to be developed by the Organization, and when that risk is low according to those guidelines. The exemption shall be recorded in the Ballast Water Management Record Book.]

[2 Equivalent compliance with this Annex for non-commercial ships less than 50 meters in length and with a maximum ballast water capacity of 8 metric tonnes shall be determined in accordance with Guidelines to be developed by the Organization.^{12]}

SECTION B – MANAGEMENT AND CONTROL REQUIREMENTS FOR SHIPS

Regulation B-1 *Ballast Water Management Plan*

Each ship shall have on board and implement a Ballast Water Management Plan approved by the Administration. Such a plan shall be based on Ballast Water Management guidelines developed and adopted by the Organization. The Ballast Water Management Plan shall be specific to each ship and shall at least:

- 1 detail safety procedures for the ship and the crew associated with Ballast Water Management as required by this Convention. [This provision shall take into account a number of criteria, but not

¹¹ The phrase “at the same location” might need further specification. Denmark suggested: “within the same hydrographical regime”.

¹² Proposal by the International Sailing Federation for further consideration.

limited to, stability, longitudinal strength sloshing, propeller immersion, minimum draft forward and bridge visibility.¹³];

2 provide a detailed description of the actions to be taken to implement the Ballast Water Management requirements and supplemental Ballast Water Management practices as set forth in this Convention;

3 detail the procedures for the disposal of sediments:

- (a) at sea; and
- (b) in port or dry-dock, in accordance with port State requirements;

4 include the procedures for coordinating shipboard Ballast Water Management with the coastal or port State authorities in whose waters such actions take place;

[5 designate the officer on board in charge of ensuring that the plan is properly implemented;]

6 contain the reporting requirements for ships provided for under this Convention; and

7 be written in the working language of the crew. [If the text is not in English, French or Spanish, it shall include a translation into one of these languages.]

Regulation B-2 *Ballast Water Management Record Book*

1 Each ship shall have on board a Ballast Water Management Record Book¹⁴, which shall at least contain the information specified in Appendix II.

2 Record Book entries shall be maintained on board the ship for a minimum period of two years after the last entry has been made and thereafter in the company's control for a minimum period of three years. Entries shall be written in the working language of the crew.¹⁵

3 In the event of such discharge of ballast water as is referred to in Regulation A-3 of this Annex or in the event of accidental or other exceptional discharge of ballast water not excepted by such Regulation, a statement shall be described in the Ballast Water Management Record Book of the circumstances of, and the reason for, the discharge.

4 The Record Book shall be kept in such a place as to be readily available for inspection at all reasonable times and, except in the case of unmanned ships under tow, shall be kept on board the ship.

5 Each operation concerning Ballast Water Management shall be fully recorded without delay in the Ballast Water Management Record Book, so that all the entries in the book appropriate to that operation are completed. Each completed operation shall be signed by the officer or officers in charge of the operations concerned and each completed page shall be signed by the Master of the ship. The entries in the Ballast Water Management Record Book shall be in a working language of the crew and also in English, French or Spanish¹⁶.

¹³ IACS raised concerns on this issue in its document MEPC 48/2/7. This issue is to be reviewed following consultations with MSC and MEPC.

¹⁴ The use of an electronic record system as an alternative to written records is to be considered.

¹⁵ To be considered whether the references to "crew" instead should be "officers and crew."

¹⁶ This paragraph may require further drafting to be consistent with resolution MEPC.87(44) on the Use of Spanish under IMO Conventions Relating to Pollution Prevention and with MEPC 45/20, Annex 8 concerning draft amendments to MARPOL 73/78, Annexes I, II, IV and VI on the use of Spanish.

6 The competent authority of the Government of a Party to the Convention may inspect the Ballast Water Management record book on board any ship to which this Convention applies, while the ship is in its port or offshore terminal and may make a copy of any entry in the book and may require the Master of the ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the Master of the ship as a true copy of an entry in the ship's Ballast Water Management Record Book shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of a Ballast Water Management Record Book and the taking of a certified copy by the competent authority under the paragraph 4 of this Regulation shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

Regulation B-3 *Ballast Water Management for Ships*

1 Except as otherwise provided in this Convention, ships shall conduct Ballast Water Management that:

- .1 for existing ships, meets or exceeds any of the following:
 - (a) pumping through three times the volume of each ballast water tank, or
 - (b) the standard described in Regulation E-1, or
 - (c) the standard described in Regulation E-2, or
 - (d) the standard described in Regulation E-3.
- .2 for intermediate ships, meets or exceeds any of the following:
 - (a) the standard described in Regulation E-1, or
 - (b) the standard described in Regulation E-2, or
 - (c) the standard described in Regulation E-3.
- .3 for new ships, meets or exceeds the standard described in Regulation E-3.
- .4 equipment or systems used to meet the requirements of this paragraph, except subparagraph B-3-1-1(a) shall be of a design approved by the Administration and shall be such as to ensure that any ballast water discharged into the sea after passing through the equipment or system meets the appropriate standard in Section E. In considering the design of such equipment and systems, the Administration shall take into account any specification recommended by the Organization.

1(bis) Ships conducting Ballast Water Management in accordance with Regulations B-3-1 (a) or (b) or B-3-2-(a) (i.e., ballast water exchange), or using ballast water exchange to meet the standards in Regulation E-2 or E-3 shall:

- .1 whenever possible, conduct such ballast water exchange at least 200 nautical miles from the nearest land¹⁷, taking into account Guidelines to be developed by the Organization.¹⁸
- .2 in cases where the ship is unable to conduct ballast water exchange at least 200 nautical miles from the nearest land, such ballast water exchange shall be conducted

¹⁷ Inclusion of the definition of "nearest land" should be considered similar to that given in Annex I of MARPOL 73/78, Regulation 1(9).

¹⁸ The Drafting Group believes this refers to technical Guidelines for the conduct of ballast water exchange.

taking into account the Guidelines described in paragraph .1 and as far from the nearest land as possible, and in all cases [at least [x] [12] [50] nautical miles from the nearest land] [and/or] [at a distance from land as determined by the coastal State] [outside a Special Area approved by the Organization] [ballast water exchange should not be conducted in any discharge-avoidance area determined by a coastal State. Such discharge avoidance areas should take into account Guidelines developed by the Organization, and the Organization and neighbouring States, as applicable, shall be notified of the establishment of such areas.]¹⁹

- .3 in cases where the ship is unable to conduct ballast water exchange at the distances or locations described in paragraphs .1 or .2, a port State may allow the ship to conduct ballast water exchange taking into account the Guidelines described in paragraph .1 in designated areas under its jurisdiction not specified in paragraph .2, under such conditions as the port State may prescribe, provided such conditions do not impair the [aquatic] resources of adjacent or other States.

[1(ter) A ship shall not be required to deviate from its intended voyage, or delay the voyage, in order to comply with any particular requirement of paragraph 1 of this Regulation.]

2 Ships need not comply with [paragraph 1] in the case of [safety, stability problems, etc., to be further developed.]

3 When a ship is unable to comply with paragraph 1, for the reasons stated in paragraph 2, the reasons shall be entered in the Ballast Water Management Record Book.

Regulation B-4 *Sediment Management for Ships*

1 All ships shall remove and dispose of sediments from spaces designated to carry ballast water in accordance with the provisions of the ship's Ballast Water Management Plan.

2 New ships shall be designed and constructed to minimize the uptake and undesirable entrapment of sediments, facilitate removal of sediments, and to provide safe access to allow for sediment removal and sampling, based on guidelines to be developed by the Organization. Existing ships shall, to the extent practicable, comply with this paragraph.

Regulation B-5 *Duties of Officers and Crew*

Officers and crew engaged in Ballast Water Management shall be familiar with their duties in the implementation of Ballast Water Management particular to the ship [on which they serve]²⁰ and shall, appropriate to their duties, be familiar with the Ballast Water Management Plan of the ship [on which they serve].

¹⁹ Bracketed options may also be seen in combination. The issue of short voyages should be considered when making a final choice between these options.

²⁰ Location of this phrase either here or at the end of this sentence.

SECTION C SPECIAL REQUIREMENTS IN CERTAIN AREAS²¹

[Regulation C-1 Procedures for Establishing a Ballast Water Discharge Control Area

1 Application to the Organization

- .1 a Party or Parties intending to establish a ballast water discharge control area shall submit an application to the Organization. The application shall describe the plans to establish such an area including the geographical boundaries of the area, as well as the reason for establishing such an area.
- .2 the application shall also include information on the procedures to be followed by ships intending to discharge ballast water within the area, in accordance with the alternative requirements on ships set out in Regulation C-2.
- .3 the Party or Parties shall specify whether or not ballast water reception or treatment facilities are, or will be, provided within the area, and provide details on any procedures for using such facilities.

2 Decisions within the Organization on Applications for Establishing Ballast Water Discharge Control Areas

- .1 an application from a Party or Parties to establish ballast water discharge control areas shall be circulated to member States [at least [.....] months before the Organization (Text to be developed based on existing provisions in MARPOL or SOLAS)]
- .2 Prevention of adverse impact: If a State believes that the establishment of a ballast water discharge control area by another Party may adversely effect the waters under its jurisdiction, that State may request consultation with that Party with a view towards resolution, and shall also inform the Organization no later than [.....] months before the Organization will consider the application for establishing the ballast water discharge control area.
- .3 Effectiveness: To establish a ballast water discharge control area, a Party or Parties must reasonably believe, based on scientific studies or risk assessment, that the requirements applicable to such areas, will be effective in preventing or minimizing the transfer of harmful aquatic organisms or pathogens[, or in preventing injury to public health, property and ecosystems from harmful organisms or pathogens from ballast water discharges]²²]
- .4 Monitoring: A Party establishing a ballast water discharge control area [should] [shall] endeavour to conduct monitoring of that area to determine its effectiveness in preventing or minimizing the transfer of harmful aquatic organisms or pathogens, and provide those findings to the Organization for circulation to other Parties.
- .5 Relationship to International Law: All established ballast water management areas and actions taken to enforce compliance with those areas shall be consistent with international law, including relevant portions of the United Nations Convention on the Law of the Sea. The establishment of a ballast water management area shall not prejudice the rights and duties of Governments under international law or the legal

²¹ The two alternative texts in this section should be reviewed along with the proposal by the United States in MEPC 48/2/8.

²² Proposal by New Zealand for further consideration.

regimes of straits used for international navigation and archipelagic sea-lanes. [(Ref. Art. 2.3. and Art. 19.)²³

Regulation C-2 *Operational Requirements for Ships Discharging Ballast Water in Ballast Water Discharge Control Areas*

A Party or Parties having established a ballast water discharge control area in accordance with the criteria in Regulation C-1 may require ships discharging ballast water in this area to comply with one of the following at the discretion of the Master:

- .1 for Ports not providing reception or treatment facilities for ballast water:
 - (a) a requirement that a ship taking up ballast water that complies with the standard in [Regulation E-2] [or some other standard] shall:
 - (i) ensure such ballast water is loaded into tanks [substantially cleaned] of sediments; and
 - (ii) only discharge such water within the ballast water discharge control area: or
 - (b) a requirement to perform ballast water treatment in accordance with Regulation E-2; or,
 - (c) a requirement to perform ballast water exchange in areas as specified in the application for a ballast water discharge control area per Regulation C 1, and for existing ships, as if it were a new ship.

a ship required to comply with this paragraph which is unable to do so for the reasons specified in Regulations A-3 or B-3-2 shall be permitted to discharge the minimum amount of ballast water necessary for proper loading, [as approved by the Party] and the reasons shall be entered in the Ballast Water Management Record Book.

- .2 for ports providing reception or treatment facilities for ballast water:
 - (a) a requirement that ships discharge ballast water solely to the reception or treatment facilities provided in the port, unless a ship can meet other standards required by the Party to reduce the risk of transfer of harmful aquatic organisms or pathogens.

A Party requiring the use of reception or treatment facilities in accordance with this paragraph shall report such information to the Organization.]

²³ The necessity of this provision should be further considered in light of Article 19. Further consideration should also be given as to how avoid confusion on flag State versus port State responsibility for any liability resulting from implementation of additional measures.

(Alternative text developed for section C)

[Regulation C-1²⁴ *Additional measures*

1 If a Party, individually or jointly with other Parties, determines that measures in addition to those in Section B are necessary to prevent, reduce, or eliminate the transfer of harmful aquatic organisms and pathogens through ships' ballast water and sediments into areas under their jurisdiction, such Party or Parties may require ships as a condition of port entry to meet or exceed a specified standard or requirement.

2 Prior to establishing standards or requirements under regulation C-1, a Party should consult with adjoining or nearby States that may be affected by such standards or requirements.

3 A Party or Parties intending to introduce additional measures in accordance to paragraph 1 of this Regulation shall communicate their intention to establish additional measure(s) to the Organization at least [x period] prior to the projected date of implementation of the measure(s).

.1 Such a communication shall be accompanied with the information prescribed in [...] confirming the measures' consistency with the criteria contained in [...].

.2 Such a measure shall not be implemented by the Party if inconsistent with the criteria in paragraph 4.1.

4 A Party or Parties in introducing such additional measures shall [have in place] [provide] all the appropriate services, as far as practicable, in order to ease the burden on the ship.

5 Any additional measures adopted by a Party or Parties shall not compromise the safety, and security of the ship.

6 A Party or Parties introducing additional measures may waive these measures for a period of time or in specific circumstances as it deems fit.

Regulation C-2 *Warnings Concerning Ballast Water Uptake in Certain Areas and Related Flag State Measures*

1 A Party shall [endeavour to] notify mariners [as far as practicable] of areas under their jurisdiction where ships should not load or uptake ballast water due to known conditions. The Party shall include in such notices the precise coordinates of the area or areas, and, where possible, the location of any alternative area or areas for the uptake of ballast water. Warnings may be issued for areas:

.1 known to contain outbreaks, infestations, or populations of harmful aquatic organisms and pathogens (e.g., toxic algal blooms) which are likely to be of relevance to ballast water loading or discharge;

.2 nearby sewage outfalls; and

.3 where tidal flushing is poor or times during which a tidal stream is known to be more turbid.

²⁴ Regulation A-1, paragraph 4, should be deleted.

2 In addition to notifying mariners of areas in accordance with the provisions of paragraph 1, a Party or Parties shall notify the Organization of any areas identified in paragraph 1 and the time period such warning is likely to be in effect. The notice to the Organization shall include the precise coordinates of the area or areas, and, where possible, the location of any alternative area or areas for the uptake of ballast water. The Party shall also notify mariners and the Organization when a given warning is no longer applicable.

3 Parties shall encourage ships entitled to fly their flag, and to which this convention applies, to avoid, as far as practicable, the uptake, transfer and discharge of potentially harmful aquatic organisms and pathogens, as well as sediments that may contain such organisms, including promoting the adequate implementation of recommendations developed by the Organization.

Regulation C-3 *Communication of Information*

The Organization shall make available, through any appropriate means, information communicated to it under regulations C-1 and C-2 of this section.]

SECTION D - SUPPLEMENTAL BALLAST WATER MANAGEMENT PRACTICES

Regulation D-1 *“Uptake, Transfer and Discharge Practices”*

1 All ships that carry ballast water shall make best efforts to avoid the uptake, transfer and discharge of potentially harmful aquatic organisms and pathogens, as well as sediments that may contain such organisms.

2 In seeking to avoid the uptake, transfer and discharge of potentially harmful aquatic organisms and pathogens, as well as sediments that may contain such organisms, ships shall make best efforts to apply supplemental ballast water management practices based on recommendations developed by the Organization.

SECTION E - STANDARDS FOR BALLAST WATER MANAGEMENT

Regulation E-1 *Ballast Water Exchange Standard²⁵*

1 Ships performing ballast water exchange in accordance with this Regulation shall do so with an efficiency of 95 per cent volumetric exchange of Ballast Water

2 The method used to establish that a ship meets the standard in paragraph shall be one of the accepted methods [contained in this Annex] [in the Code][approved by the Organization].

4 New ships shall be designed and constructed in accordance with the following requirements (to be listed).

²⁵ It should be considered whether this standard is kept under Section E, or moved to the Ballast Water Management Code.

Regulation E-2 *Short-term Ballast Water Management Standard*

Option 1:

1 Ships conducting Ballast Water Management in accordance with this Regulation shall achieve at least [95]% removal, rendering harmless, or inactivation of a defined set of taxa.

Option 2:

2 Ships conducting Ballast Water Management in accordance with this Regulation shall discharge no detectable quantities of viable organisms above [100]µm in size, and discharge no more than [25 viable individuals of zooplankton per litre, 200 viable cells of phytoplankton per ml²⁶] smaller than [100]µm in size

Regulation E-3 *Long-term Ballast Water Management Standard*

Ships conducting Ballast Water Management in accordance with this Regulation shall Discharge no detectable quantities of viable organisms above [y]µ in size, and discharge no other organisms above a concentration of [z].

Regulation E-4 *Additional criteria for ballast water treatment systems*

Ballast water treatment systems used to comply with this Convention must be:

- .1 safe in terms of the ship and its crew;
- .2 environmentally acceptable, i.e. not causing more or greater environmental impacts than it solves;
- .3 practicable, i.e. compatible with ship design and operations;
- .4 cost effective, i.e. economical; and
- .5 biologically effective in terms of removing, or otherwise rendering inactive harmful aquatic organisms and pathogens in ballast water.

[Regulation E-5 *Existing Equipment*

[The Ballast Water Management Standards in Regulation E-2]²⁷ shall not apply to a ship that, prior to entry into force of this Convention, has [permanently] installed a Ballast Water Management System, approved by the Administration, and initially installed for the purpose of testing and evaluating new technologies for Ballast Water Management. Such technologies may include those that have been either approved or recommended by the Organization prior to entry into force of the Convention.]²⁸

Regulation E-6 *Review of Standards by the Organization*

[1 To meet the objectives of this convention as stated in Article 1, the Organization shall undertake a review or reviews to, at a minimum, determine whether appropriate technologies are

²⁶ These figures are provided as placeholders.

²⁷ To be reviewed in light of outcome of Regulation E-2.

²⁸ See further the proposal by OCIMF for a draft resolution by MEPC or the Diplomatic Conference as reflected in MEPC 48/2, MEPC 48/2/19, and MEPC 48/WP.2, paragraph 4.5.

available to achieve the standard contained in Regulation E-3. Such review(s) may additionally consider any aspect of Ballast Water Management addressed in this Annex, including, but not limited to, support for decisions on the scope of application the Annex, upgrading of requirements for existing or intermediate ships, or other applicable parameters, as appropriate.]

[2 The review(s) described in paragraph 1 shall be conducted periodically. At least one review shall be conducted no later two years prior to the earliest date on which a new ship is required to comply with Regulation E-3, for the purpose of:

- (a) supporting decisions on the achievability, cost effectiveness, net environmental benefits, technical feasibility and effective date of Regulation E-3 for new ships; and
- (b) assessing the socio-economic effect(s) to the developmental needs of small island developing States; and
- (c) (other items to be included after review).]

[3 The Committee may form a group or groups to conduct the review(s) described in paragraphs 1 and 2. The Committee shall determine the composition, terms of reference and specific issues to be addressed by any such group formed. Such groups may develop and recommend proposals for amendment of this Annex, for consideration by the Committee.]

4 If, based on the reviews described in this Regulation, the Parties decide to adopt amendments to this Annex, such amendments shall be adopted and enter into force in accordance with the procedures contained in Article [23] of this Convention.

SECTION F - SURVEY AND CERTIFICATE REQUIREMENTS FOR BALLAST WATER MANAGEMENT

Regulation F-1 *Surveys*

1 Ships of 400 gross tonnage and above to which this Convention applies, [excluding fixed or floating platforms floating, FSUs and FPSOs] shall be subject to surveys specified below:

- .1 An initial survey before the ship is put in service or before the Certificate required under regulation F-2 or F-3 of this Annex is issued for the first time. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material achieve full compliance with the applicable requirements of this Convention.
- .2 A renewal survey at intervals specified by the Administration, but not exceeding five years, except where regulation F-5(2), F-5(5), F-5(6) or F-5(7) of this Annex is applicable. This survey shall be such as to ensure that the structure, equipment, systems, fittings, arrangements and material achieve full compliance with applicable requirements of this Convention.
- [.3 An intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the Certificate, [which shall take the place of one of the annual surveys specified in paragraph 1.4 of this Regulation]. The intermediate survey shall be such to ensure that the equipment and associated systems for Ballast Water Management fully comply with the applicable requirements of this Annex and are in good working order. Such intermediate surveys shall be endorsed on the Certificate issued under Regulation F-2 or F-3 of this Annex.]²⁹

²⁹ For further consideration (see document MEPC 48/WP.2, paragraph 2.10).

- [.4 An annual survey within three months before or after each anniversary date of the Certificate, including a general inspection of the structure, equipment, systems, fittings, arrangements and material referred to in paragraph 1.1 of this Regulation to ensure that they have been maintained in accordance with paragraph 9 of this Regulation and that they remain satisfactory for the service for which the ship is intended. Such annual surveys shall be endorsed on the Certificate issued under Regulation F-2 or F-3 of this Annex.]³⁰
- .5 An additional survey either general or partial, according to the circumstances, shall be made after a change, replacement, or significant repair of the structure, equipment, systems, fittings, arrangements and material necessary to achieve full compliance with this Convention. The survey shall be such as to ensure that any such change, replacement, or significant repair has been effectively made, so that the ship complies with the requirements of this Convention. [Such surveys shall be endorsed on the Certificate issued under Regulation F-2 or F-3 of this Annex.]

2 The Administration shall establish appropriate measures for ships that are not subject to the provisions of paragraph (1) of this regulation in order to ensure that the applicable provisions of this Convention are complied with.

3 Surveys of ships for the purpose of enforcement of the provisions of this Convention shall be carried out by officers of the Administration. The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it.

4 An Administration nominating surveyors or recognizing organizations to conduct surveys, as described in paragraph (3) of this Regulation shall, as a minimum, empower such nominated surveyors or recognized organizations to:

- .1 require a ship that they surveys to comply with the provisions of this Convention; and
- .2 carry out surveys and inspections if requested by the appropriate authorities of a port State that is a Party.

5 The Administration shall notify the Organization of the specific responsibilities and conditions of the authority delegated to the nominated surveyors or recognized organizations, for circulation to Parties for the information of their officers.

6 When the Administration, a nominated surveyor, or a recognized organization determines that the ship's Ballast Water Management does not conform to the particulars of the Certificate required under regulation F-2 or F-3 of this Annex or is such that the ship is not fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment, such surveyor and organization shall immediately ensure that corrective action is taken to bring the ship into compliance. A surveyor or organization shall be notified immediately, and it shall ensure that the Certificate is not issued or is withdrawn as appropriate. If the ship is in the port of another Party, the appropriate authorities of the port State shall be notified immediately. When an officer of the Administration, a nominated surveyor, or a recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this Regulation, including any action described in Article 10 of this Convention.

³⁰ For further consideration (see document MEPC 48/WP.2, paragraph 2.10).

7 Whenever an accident occurs to a ship or a defect is discovered which substantially affects the ability of the ship to conduct Ballast Water Management in accordance with this Convention, the owner, operator or other person in charge of the ship shall report at the earliest opportunity to the Administration, the recognized organization or the nominated surveyor responsible for issuing the relevant Certificate, who shall cause investigations to be initiated to determine whether a survey as required by paragraph 1 of this Regulation is necessary. If the ship is in a port of another Party, the owner, operator or other person in charge shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such report has been made.

8 In every case, the Administration concerned shall fully guarantee the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.

9 The condition of the ship and its equipment shall be maintained to conform with the provisions of the Convention to ensure that the ship in all respects will remain fit to proceed to sea without presenting an unreasonable threat of harm to the marine environment.

10 After any survey of the ship under the paragraph 1 of this Regulation has been completed, no change shall be made in the structure, equipment, fittings, arrangements or material covered by the survey without the sanction of the Administration [, except the direct replacement of such equipment or fittings].

Regulation F-2 *Issue or Endorsement of an International Ballast Water Management Certificate*

1 The Administration shall ensure that a ship to which Regulation F-1 of this Annex applies is issued a Certificate after successful completion of a survey conducted in accordance with Regulation F-1. A Certificate issued under the authority of a Party shall be accepted by the other Parties and regarded for all purposes covered by this Convention as having the same validity as a Certificate issued by them.

2 Certificates shall be issued or endorsed either by the Administration or by any person or organization duly authorized by it. In every case, the Administration assumes full responsibility for the Certificate.

Regulation F-3 *Issue or Endorsement of an International Ballast Water Management Certificate by Another Party*

1 At the request of the Administration, another Party may cause a ship to be surveyed and, if satisfied that the provisions of this Convention are complied with, shall issue or authorize the issuance of a Certificate to the ship, and where appropriate, endorse or authorize the endorsement of that Certificate on the ship, in accordance with this Annex.

2 A copy of the Certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.

3 A Certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as a Certificate issued by the Administration.

4 No Certificate shall be issued to a ship entitled to fly the flag of a State which is not a Party.

Regulation F-4 *Form of International Ballast Water Management Certificate*

The Certificate shall be drawn up in the official language of the issuing Party, in the form set forth in Appendix 1. If the language used is neither English, French nor Spanish the text shall include a translation into one of these languages.

Regulation F-5 *Duration and Validity of International Ballast Water Management Certificate*

1 A Certificate shall be issued for a period specified by the Administration that shall not exceed five years.

2 For renewal surveys:

.1 Notwithstanding the requirements of paragraph (1) of this Regulation, when the renewal survey is completed within three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.

.2 When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing Certificate.

.3 When the renewal survey is completed more than three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.

3 If a Certificate is issued for a period of less than five years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in paragraph (1) of this regulation, provided that the surveys referred to in regulation F-1-1.3 of this Annex applicable when a Certificate is issued for a period of five years are carried out as appropriate.

4 If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the ship before the expiry date of the existing Certificate, the person or organization authorized by the Administration may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed five months from the expiry date.

5 If a ship at the time when the Certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No Certificate shall be extended for a period longer than three months, and a ship to which such extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.

6 A Certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this Regulation may be extended by the Administration for a period of grace of up to one month from the date of expiry stated on it. When the renewal survey is completed,

the new Certificate shall be valid to a date not exceeding five years from the date of expiry of the existing Certificate before the extension was granted.

7 In special circumstances, as determined by the Administration, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by paragraph 2.2, 5 or 6 of this Regulation. In these special circumstances, the new Certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.

8 If an annual survey is completed before the period specified in Regulation F-1 of this Annex, then:

- .1 the anniversary date shown on the Certificate shall be amended by endorsement to a date which shall not be more than three months later than the date on which the survey was completed;
- .2 the subsequent annual or intermediate survey required by Regulation F-1 of this Annex shall be completed at the intervals prescribed by that Regulation using the new anniversary date;
- .3 the expiry date may remain unchanged provided one or more annual surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by Regulation F-1 of this Annex are not exceeded.

9 A Certificate issued under regulation F-2 or F-3 of this Annex shall cease to be valid in any of the following cases:

- .1 if the structure, equipment, systems, fittings, arrangements and material necessary to achieve full compliance with this Convention is changed, replaced or significantly repaired and the Certificate is not endorsed in accordance with this Annex;
- .2 upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Party issuing the new Certificate is fully satisfied that the ship is in compliance with the requirements of Regulation F-1 of this Annex. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the Certificates carried by the ship before the transfer and, if available, copies of the relevant survey reports;
- .3 if the relevant surveys are not completed within the periods specified under Regulation F-1-1 of this Annex; or
- .4 if the Certificate is not endorsed in accordance with Regulation F-1-1 of this-Annex.

APPENDIX I FORM OF INTERNATIONAL BALLAST WATER MANAGEMENT CERTIFICATE

APPENDIX II FORM OF BALLAST WATER RECORD BOOK

Appendix 4: Mid Term Evaluation

Prepared by Mr Bin Okamura & Dr. David Vousden

Project design

- ☺ Project successful in meeting GEF criteria
- ☺ Outputs appropriate to global concerns
- ☺ Project is gradually addressing its main objectives
- ☺ Project raising profile of ballast water issue
- ☹ Timescale of project too short
- ☹ Inadequate human resources (national and PCU)
- ☹ Project staff needed better ToR/definition of roles
- ☹ Delay in adoption of Convention
- ☹ Absence of an effective mechanism for national replication
- ☹ Overall absence of a clear mechanism for capture and transfer of lessons and best practices

Project implementation

- ☺ Very professional public image & effective awareness outreach
- ☺ Efficient project management, logistics and delivery by PCU
- ☺ Effective and appropriate CFPs
- ☺ Dedicated and committed CFP-assistants
- ☺ Excellent stakeholder participation – especially CPTF level
- ☺ Appropriate executing agency with high international profile
- ☹ Component delays (absence of Convention and design error)
- ☹ Need for better networking within project
- ☹ Formal bureaucratic nature of executing agency has slowed project delivery

Project impact

- ☺ High level of awareness across nearly all sectors
- ☺ Membership of MEPC/BWWG risen rapidly in past two years
- ☺ Raised national capacity for pbs and risk assessment
- ☺ Model example of proactive GEF assistance to an international environmental agreement
- ☹ Not enough support for essential research
- ☹ Needs more effective awareness at policy level
- ☹ Countries want more emphasis on capacity building
- ☹ Uncertainty over ‘end-of-project’ landscape

Component 1: Programme Coordination and Management

- ! Early 'teething' problems in overall management structure
- Management & coordination now settled down into an organised & efficient structure
- Very effective and dedicated PCU
- Appropriate and supportive CFPs
- Highly committed and motivated CFP-assistants
- Well-constructed and representative CPTFs
- Excellent stakeholder participation

- Human resource constraints have represented a problem
- Needs more networking between countries

Component assessment – excellent

Component 2: Communication, Education and Awareness

- Project has high profile and very visible identity
- Effective raising of awareness at almost all sectors
- Good communications material developed
- Need to prioritise completion of case studies
- Need to take awareness and sensitisation to policy level

Component assessment: good to excellent

Component 3: Risk Assessment

- Port baseline surveys now progressing effectively
- Risk assessment exercises expected to be successful
- Stakeholders feel 'project now starting to make sense'
- Early problems with counterparts and guidance
- Insufficient funding
- Inappropriate timing
- Need for national species/habitat baseline data
- Need for long-term monitoring mechanisms & responsibilities
- Need for an international 'wrap-up' workshop

Component assessment: satisfactory to good, expected to improve

Component 4: Ballast water management measures

- Successful dissemination and use of IMO guidelines
- Effective support and compliance from shipping industry
- Improved understanding of ballast water issues in ports and on ships
- Most ports collecting data and ballast water information
- Delays in development of training packages
- Lack of workable solutions to ballast water/invasive species problem
- More support and effort needed for research & development
- Uncertainties raised by lack of Convention
- Delays in adoption of legislation
- Delays in development of national BWMPs

Component assessment: good/sustainable (needs Convention)

Component 5: Compliance, Monitoring and Enforcement

- ☹️* Absence of Convention = overall delay in this component
- 😊 However, this delay has allowed project and GEF to be proactive in Convention development
- ! Different national policies on adoption of legislation
- ! Varying degrees of implementation of IMO guidelines
- Uncertainty regarding use of INTERTANKO model by industry
- No standardised sampling methods available yet

Component assessment: borderline, currently unsustainable

Component 6: Regional Replication

- Some countries making good progress with regional cooperation and alliances
- RAPs being developed in parallel with project
- ! Different countries at different stages
- Component delivery constrained by absence of Convention
- Component delivery constrained by project timescale
- Countries constrained by limited human resources

- Regional replication is a critical objective. Therefore needs serious consideration on how to progress.

Component assessment: borderline to unsatisfactory

Component 7: Resources and Financing

- Current activities to support IMO guidelines covered by national staff and revenues
- General acceptance that 'polluter-pays' approach will support the Convention
- Excellent awareness campaign should encourage and assist financial support
- Need for a review of existing financing mechanisms used in other countries & for other international agreements
- Clarification of purpose of donor conference

Component assessment: borderline, needs focus

GEF criteria

- Impressive level of 'in-kind' contribution
- National commitment is high on average
- Strong national support for the Convention
- High level of support from industry
- Potential for post-project funding appears good
- Stakeholder engagement has been excellent
- Stakeholder participation has been high
- Full transparency of data and information
- Still need to engage policy level support
- Need for project to deliver clear conclusions ('end-of-project' landscape)

GEF criteria assessment: excellent

Conclusions and recommendations: post-MTE project update

Review of project status and end-of-project landscape

Update on Convention status and relation to project activities

Assessment of lessons, and development of mechanisms for replication

End-of-Project Landscape

Review of legislation and CME development

Review CME activities and legislative steps in relation to status of Convention

Revise legislative and CME expectations for remainder of project

Development of GloBallast II

Develop ProBrief to capture outstanding needs of Ballast Water Programme

Discuss at International Conference

Submit to GEF

Conclusions and recommendations: national strengthening

Targeted awareness package

Consolidate Case Studies and findings from PBS and RA

Include Information from Post-MTE Project and Convention Updates

Careful packaging and delivery to policy makers

Strengthen national stakeholder engagement

Use MTE as Formal Contact with relevant stakeholders to engage ‘missing’ input to project (IMO assistance in coordination with CFPs)

Develop integrated national approach and responsibility

Review of national responsibilities under IMO Guidelines

Review of National and Regional Replication mechanisms

Consider long-term role of CPTF to assist in integrated BW approach

Capture of missing information & development of long-term monitoring programmes

Desktop analysis to identify ‘Gaps’ in info on species/habitats/ecosystems

Identify funding sources and manpower/agencies to fill ‘Gaps’

Define long-term monitoring needs and capacity requirements

Develop list of International Taxonomic Experts and Rapid Assistance groups to address monitoring needs and potential invasions

Conclusions and recommendations: global strengthening

Strengthening of role and function of GPTF and CFPs

Intersessional function for GPTF (document review, policy issues)

Better networking process for information-sharing and discussion

Review of financing and revenue capture mechanisms

International review of financing mechanisms for IMO and similar Conventions (and ballast water management, where it exists)

Present findings to International Conference/Workshop

Assessment of research and development

Independent and impartial review of R&D for treatment and/or control of ballast water

Present findings to International Conference/Workshop

Conference of international donors/stakeholders

Present update on status of GloBallast Project and Convention

Review existing and potential funding mechanisms

Review of long-term monitoring and data needs (to engage support)

Presentation of independent review of R&D for treatment/control

Update on need for GloBallast II and discussion of requirements

Summary of overall findings of mid-term evaluation

Achievements

- Project has achieved high level of awareness at national and global level
- Project execution and management effective and remarkable in view of constraints (Time and Manpower)
- Country contributions and commitment significant and valuable
- Stakeholder participation and support exceptional and impressive
- Solid foundation to support forthcoming Convention
- Contributed to understanding of barriers and constraints to implementation of forthcoming Convention and overall ballast water management

- Model example of GEF involvement in the active development of an International Environmental Agreement

Concerns

- Delays in certain components and their outputs (Legislation, CME, Regional Replication)
- Some delays are a result of Project Design and some are due to delays in adoption of Convention
- There are some areas of project management and technical output which could be improved

Next steps

Primary concern now is not to lose valuable momentum created by good awareness and professional project profile

Need to review project status against Convention status and consider strategy for remaining project period

Need to concentrate on policy level awareness

Need to develop GloBallast II with strong justification and international support

And finally...

The evaluators wish to extend their thanks and gratitude to all who assisted in the MTE process, and to the countries for their hospitality and generous help.

Congratulations on an overall MTE assessment of **Good to Impressive** and for achieving so much in such a short time.

Our Warm Wishes and Good Luck for the future of the GloBallast Project

☺ THE EVALUATORS!

Appendix 5: GEF Draft Concept Paper¹

¹ The following text is that of the draft paper as presented to the Meeting. It has since been revised and expanded in response to review by the GPTF.

Global Environment Facility

DRAFT CONCEPT PAPER for a FULL SIZED GEF PROJECT

1 Project title

Building Regional Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast *Advanced*)

2 GEF Implementing Agency

United Nations Development Programme

3 Country or countries in which the project is being implemented

Global

4 GEF Focal Area(s)

International Waters

5 Operational Program/Short-term measure

Contaminant-Based Operational Program (OP 10)

6 Country Drivenness (Project linkage to national priorities, action plans and programs):

The introduction of marine species to new environments, including through ships' ballast water, is considered to be one of the greatest threats to the world's coastal and marine environments and human health. 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 more than 7,000 different species of microbes, plants and animals may be carried globally in ballast water each day. When discharged into new environments these species may become invasive, severely disrupt the native ecology and have serious impacts on the economy and human health.

Developing countries are among the largest "importers" of ballast water due to their significant exports of bulk commodities. Exports of oil, ore, phosphates and other bulk cargoes are in many cases the primary source of revenue for the country and an important component of the national economy. On the other hand, developing countries are frequently dependent on their marine environments as the main source of living for the coastal populations and as a major tourist attraction.

As the transfer of invasive aquatic species is a trans-boundary problem, regional co-operation is a key element in any strategy to address this issue. Lack of action at a regional level could become a serious barrier to progress, if single country actions were to lead to other nations using the lack of adequate ballast water management provisions to attract greater interest in their ports. The ballast water problem has a high degree of specificity, due to the fact that invasive aquatic species do not recognise national borders and that the shipping industry crosses jurisdictional boundaries in the conduct of trade.

The main driver for this project is therefore the fact that individual countries cannot effectively address the issue of invasive aquatic species and ballast water alone, which creates a vital need for regional cooperation and a standardised, uniform international approach to the issue. The foundations of the regional approach have been laid during the initial phase of the GEF/UNDP/IMO Global Ballast Water Management Programme (GloBallast), through the following Pilot Countries: Brazil, China, India, Iran, South Africa and Ukraine, representing the main developing regions of the world (South America, East Asia, South Asia, ROPME Sea Area, Africa and Eastern Europe respectively).

As a result of the pilot phase of the GloBallast Programme, to date three of the pilot regions (Eastern Europe - Black Sea, ROPME Sea Area and East Asia) have developed Regional Action Plans to Minimize the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water, based on the experience gained in the respective Pilot Countries. In addition, the developing countries of the eastern Baltic have laid the foundations for a Regional

Action Plan, as part of the Eastern Europe region. It is planned that by the end of 2003 the remaining three pilot regions (Africa, South America and South Asia) will reach similar agreements. GloBallast has also been assisting the Mediterranean Action Plan to develop a regional strategy on invasive aquatic species.

These Regional Action Plans are designed to facilitate the rapid implementation of the forthcoming *International Convention on the Control and Management of Ships' Ballast Water and Sediments* currently being developed at IMO, thereby ensuring the necessary international standardisation and uniformity.

The main focus of this phase will be on regional replication of the activities carried out in the Pilot Countries and on facilitating cooperative regional implementation of the global Convention. The project will cover the six initial developing areas and new regions that have expressed their interest in joining the Programme.

National Policies

During the GloBallast Pilot Phase, the Programme Coordination Unit (PCU) has received numerous requests from many countries to participate in the Programme. Many of these countries are proceeding with including the issue in their national priorities, action plans and programmes, and participation in negotiations at IMO to develop the new ballast water Convention has increased from around 14 Member States at the commencement of the GloBallast Pilot Phase in 2000, to over a hundred in 2002. As well as increased participation in the IMO ballast water Convention process, many developing countries are also party to the Convention on Biological Diversity (CBD), the United Nations Convention on the Law of the Sea (UNCLOS) and other international and regional instruments that have elements relating to invasive aquatic species, and have or are developing related national priorities, action plans and programmes.

As this is a global project covering a large number of countries in many regions, it is beyond the scope of this Concept Paper to provide details on Country Drivenness in all of the potential beneficiary countries. However, all six Pilot Countries have included ballast water management and control in their national development and environment policies, and a summary is given below as a globally representative indication of country drivenness from six extremely diverse regions:

Brazil has been active in ensuring marine (and other) environmental protection and is party to the CBD, UNCLOS and MARPOL 73/78 (Annex I, II) and has enacted national legislation implementing most obligations. It is actively developing a modern ecological protection regime modelled on integrated management principles.

Brazil has been developing its integrated coastal management practices at a national level since 1988, when a law was adopted creating the National Coastal Management Plan as part of the National Policy on Sea Resources and the National Environmental Policy. It also created a National Council for the Environment. There is also an inter-agency coordination process under the Office of the Inter-Ministerial Commission for the Resources of the Sea. Many of the activities of this Commission are concerned with ensuring a coordinated legislative and administrative response to matters affecting the coastal area, including integrated management of ocean resources and activities.

The national Environment Ministry is responsible for facilitating the process of integrated coastal and marine management, a mandate that includes concerns about marine biodiversity and the impact of harmful aquatic organisms that are transported in ships' ballast water.

A number of government agencies may be involved in the response to the problem of harmful aquatic organisms and pathogens. The Ministry of Health, the Ministry of the Environment and the Brazilian Navy were identified as the agencies with the primary legal responsibility for developing an effective national regime to deal with the flag State, port State and coastal State concerns associated with the problem. The Ministry of Health passed regulations relating to ballast water management in 2001, the Ministry of Environment made a substantial budget allocation from national sources for the issue in 2001/02, and as a result of the GloBallast Pilot Phase, Brazil is proceeding with the replication of certain technical ballast water management activities at major ports, using its own resources.

China is in a period of significant law reform including adoption of integrated management approaches to environmental protection. Environmental protection is one of its two Basic Policies (the other is Population Control). The Constitution of China states "the State protects and improves the living environment, controls and

prevents pollution and other things which cause harms to public.” Dozen of laws and regulations have been promulgated for this purpose. As an IMO Member State and Category A Council Member, China is party to most IMO legal instruments relating to maritime safety and marine environment protection. China is also party to UNCLOS and the CBD. The China Maritime Safety Administration (MSA) is a member Authority of the MOU on Port State Control in Asia-Pacific Region.

China has a unified constitutional system with various levels of implementing authority. The constitutional and legal framework of the People’s Republic of China comprises the constitution, laws, administrative regulations, local and ministerial regulations or provisions, which are promulgated or amended by the National People’s Congress or its Standing Committee, the State Council, the Ministries and Departments under the State Council, and the Provincial or Municipal People’s Congress and the Government respectively. The legislative framework of China consists of three levels: laws promulgated by the National People’s Congress or its Standing Committee; regulations promulgated by the State Council, and; regulations or provisions promulgated by the Ministries and Provincial People’s Congress or local government. In order to implement the relevant laws, the State Council issues regulations or rules, which provide for more detailed and specific requirements. This means that various levels of government and administrations are often involved in implementing national legislation, to varying degrees of specificity.

Several governmental organisations are involved in marine environmental protection with national laws and regulations defining their responsibilities and authority. There are numerous national environmental laws that may be relevant to the transfer of harmful organisms and pathogens in ships’ ballast water including: The Law of Protection of Environment of the People’s Republic of China; The Law for Protection of Marine Environment of the People’s Republic of China; The Frontier Quarantine Law of the People’s Republic of China; The Law for Prevention of Pollution to Water; The Fishery Law; The Law for Prevention of Pollution by Solid Wastes. There is also a draft Law on the Management and Use of the Sea, which sets in place a licensing system for uses of the sea except anchorage and ports. Some of these instruments, like the Law for Marine Environment Protection, are general and some are specifically related to one or two issues.

At present there is no detailed environmental law, regulation or standard dealing specifically with ballast water management to prevent the transfer of harmful aquatic organisms, although it is addressed in part under the legal regime dealing with health matters (the Frontier Quarantine Law) and is referred to in the recently amended Law for Marine Environment Protection. The national law most relevant to this issue is the Law for Marine Environment Protection, which has regulations dealing with ballast and bilge water discharge in connection with oil pollution. The Law sets out general principles and prohibits, *inter alia*, discharge of ballast water in waters under the jurisdiction of China contrary to regulations and requires that ships report to and obtain permission from the Administration before undertaking activities such as discharging ballast water. Although it does not refer to harmful aquatic organisms the wording is broad enough to provide the basic legal foundation for regulating ballast water discharge. Several Government Agencies have responsibilities and may be involved in ballast water management and control on a cooperative basis, however, the Maritime Safety Administration and the State Administration of Inspection and Quarantine appear to be the best equipped to address the issue.

As a result of the GloBallast Pilot Phase, China is proceeding with the replication of technical ballast water management activities at major ports, using its own resources. The Chinese government is currently planning a 15-year project for the protection of the marine environment known as “Blue Sea”. GloBallast is associated with the nationwide effort and will provide information on its activities regarding risk assessment, port surveys and compliance, monitoring and enforcement.

India is a federation with a constitution that divides power between the Union (central government) and the States. The subjects on which the Union and the States are competent to legislate are clearly set out in the Schedule of the Constitution. The Union Government controls, *inter alia*, shipping and navigation, port quarantine, fisheries beyond territorial waters and ports, designated as Major Ports. Article 48A of the Constitution also mandates Parliament (Union) to take suitable measures to protect the environment. Ports, other than Major Ports, are the subject of concurrent jurisdiction by virtue of which both the Union and the States can legislate. In the event of inconsistency the law made by Parliament (Union) prevails.

The Union Government has exclusive authority to enter into treaties and agreements with foreign countries. Parliament has the power to make laws to implement treaties. In order to have force of law domestically any international convention ratified by India has to be specifically incorporated in domestic legislation. However, there is a generally recognized principle that, in the event of doubt, the national law is to be interpreted in

accordance with the country's international obligations. India is party to MARPOL 73/78 (Annex I, II), STCW, UNCLOS and the Convention on Biological Diversity.

The Union Government has laid down broad parameters regulating various activities in the coastal zone. Indian States that have coasts have an obligation to prepare a Coastal Management Plan for approval by the Ministry of Environment and Forests. There are also Union and in several cases State legislation relating to fisheries protection.

The quarantine laws are administered by the Ministry of Health pursuant to the Indian Ports Act, 1908 and The Indian Port Health Rules, 1955. The Indian Port Health Rules are applicable to all ports. However, these are focused on human health and diseases.

The Coast Guard, appointed under the Coast Guard Act, 1978, is mandated to take measures to preserve and protect the marine environment, to prevent and control marine pollution and to enforce the laws that apply to India's maritime zones. The Coast Guard works under the supervision of the Director-General of Coast Guards.

The Ministry of Surface Transport has overall responsibility for all legislation relating to surface transport, i.e., Indian Ports Act, 1908, Major Port Trusts Act, 1963 and Merchant Shipping Act, 1958. The Director-General of Shipping is part of this Ministry and is the authority responsible for implementing the various provisions contained in the Merchant Shipping Act, 1958.

To date there is no comprehensive legislation governing the discharge and management of ballast water as it relates to the transfer of harmful aquatic organism and pathogens by ships. The Merchant Shipping Act, 1958 applies to all Indian ships wherever they are and to all foreign flag vessels when they are within territorial waters, continental shelf, exclusive economic zone and other Indian maritime zones. If regulations are made under the Merchant Shipping Act, 1958, the Director-General of Shipping, the Principal Officer, Mercantile Marine Department and the Surveyors are the authorities to enforce and/or implement all issues concerning ballast water exchange. There is a draft amendment to the Merchant Shipping Act, 1958 now with the Ministry of Surface Transport, that combines the regulations contained in other annexes to MARPOL 73/78 and also, possibly, regulations relating to ballast water management. However, the amendments relating to ballast water management assume that the international on ballast water Convention will be ratified by India and come into force. This means the legislation would, in principle, become enforceable so far as the ballast water management is concerned, only if there is an international Convention.

As a result of the GloBallast Pilot Phase, India is proceeding with the replication of technical ballast water management activities at major ports in India, using its own resources.

Iran has a unified constitutional structure. Legislative power is exercised by the Islamic Consultative Assembly (Parliament), consisting of representatives of the people. Approvals from this body are ratified by the Guardian Council and implemented through the Executive and the Judiciary. Parliament is not allowed to enact laws contrary to the principle and rules of the official faith of the country or the Constitution. Aside from these restrictions the Islamic Consultative Assembly may enact laws on all matters. The Council of Ministers is authorized to pass by-laws and decrees for the purpose of carrying out administrative functions, ensuring implementation of adopted laws, and regulating administrative institutions. Individual Ministers may also draw up regulations and issue circulars within the limits of their duties and the approval of the Council of Ministers.

International conventions, protocols, treaties, and pacts must be formally approved by Parliament. The President is authorised to sign treaties, conventions, agreements and contracts concluded by the government of Iran after ratification by Parliament. Under the Iranian Civil Code, international treaties and conventions enter into force as a national law, after approval by Parliament. Iran has acceded to a number of regional and international conventions regarding environmental or marine environmental protection, including MARPOL 73/78, the Kuwait Convention (a regional seas agreement among the coastal States of the Persian Gulf and the Sea of Oman) and the CBD. Iran has developed a National Biodiversity Strategy and Action Plan (NBSAP), based on integrated management principles, and a supporting Secretariat to implement the provisions of the CBD. The country is also a member of the Caspian Environment Programme, and hosts its PCU and Thematic Centre on Pollution Emergencies and Response.

There are a number of domestic rules and regulations regarding environmental pollution, which the Department of the Environment (DOE) is responsible for, that might relate to harmful aquatic organisms.

The Ports and Shipping Organization (PSO), which is affiliated with the Ministry of Roads and Transportation, is the Authority that supervises shipping activities in Iranian waters. It is vested with responsibility for preventing marine pollution, particularly pollution from ships. Although there is no coastal zone law, there has been an effort to undertake Integrated Coastal Zone Management (ICZM). A department within the PSO is responsible for coordinating coastal zone planning.

As a result of the GloBallast Pilot Phase, Iran is proceeding with the replication of technical ballast water management activities at some of its other major ports using its own resources.

South Africa is a quasi-federal state in which administration takes place at national, provincial and local levels of government. The basis of the South African legal system is Roman Dutch common law, as elaborated by the Constitution of the Republic of South Africa, which also includes a Bill of Rights. Together with international law (including a number of environmental and marine related conventions) and innumerable statutes, they comprise the country's legal system.

Customary international law is automatically law in South Africa (unless it is inconsistent with the Constitution or an Act of Parliament) however, under the Constitution, international agreements become law only when they are enacted by national legislation. Conventions of a "technical, administrative or executive nature, or an agreement that does not require either ratification or accession" are binding without requiring the approval of the National Assembly and National Council of Provinces, as long as they are tabled in Assembly and the Council 'within a reasonable time'. South Africa is party to UNCLOS, the CBD and MARPOL73/78.

The regulation of international and national shipping and related matters are specifically excluded from local competence and since it is not the subject of concurrent powers is exclusively within the domain of national government, and regulated by the Department of Transport (DoT). Historically the DoT was charged with all aspects of maritime transport including domestic implementation of international maritime conventions but in 1998 the implementation of these was assigned to the South African Maritime Safety Authority (SAMSA), a statutory authority established under the South African Maritime Safety Authority Act (1998). The DoT still retains law-making power in this area but has assigned the implementation of the various laws, especially marine pollution, to SAMSA. SAMSA is primarily concerned with implementing the IMO mission of 'safe clean seas'. It administers and implements most of the shipping related marine pollution control laws, including the Marine Pollution (Prevention of Pollution from Ships) Act (1986), the Marine Pollution (Control and Civil Liability) Act (1981), the Merchant Shipping Act (1951) and the Marine Traffic Act (1981).

The national Department of Environmental Affairs and Tourism (DEA&T) and its Directorate of Aquatic and Marine Pollution Control is responsible for coastal and marine water quality as well as the regulation and control of the introduction and elimination of alien organisms throughout South Africa including its marine waters. The DEA&T is responsible for a number of existing and forthcoming laws which could be used to regulate ballast water management, including: the National Environmental Management Act (1998); Environment Conservation Act (1989) (provides the legislative basis for environmental impact assessment in South Africa); Marine Living Resources Act 18 of 1998 (provides for the establishment of fishing harbours and their administration); National Coastal Management Bill (Act pending) which provides for Integrated Coastal Management in South Africa and includes a chapter on marine pollution; and the National Biodiversity Bill (Act pending) which will give domestic effect to South Africa's international rights and obligations under the CBD. It will include sections on the control and elimination of alien organisms and could also be a possible vehicle for the implementation of ballast water regulations into South African law and provides for a National Biodiversity Institute for South Africa.

As a result of the GloBallast Pilot Phase, South Africa is proceeding with the replication of technical ballast water management activities at major ports, using its own resources.

Ukraine has a unified constitutional structure based on its 1996 Constitution which established individual rights, a constitutional basis for democracy and sets out the structure and status of the legislative, executive and judicial bodies in the Ukraine.

Legislative power in Ukraine is exclusive to the national Parliament - the Verkhovna Rada, a one-chamber parliament, which consists of 450 National Deputies who exercise their authority on a permanent basis. The Verkhovna Rada has competence over more than 40 matters including key adopting legislation and exercising control over the government of Ukraine. The Constitution contains a list of issues that are determined

exclusively by laws of the Ukraine, including economic matters, health care, ecological safety etc. The President of the Ukraine, the National Deputies, the Cabinet of Ministers and the National Bank of the Ukraine have the right to initiate legislation.

International law has a special place in the Ukraine, which has a long history of involvement in international lawmaking. The 1990 Declaration on the Sovereignty of Ukraine states that the Ukraine recognizes the priority of generally recognised norms of international law over norms of national law. Ukraine is party to numerous conventions including UNCLOS, the CBD and MARPOL 73/78. Although these broader international obligations are important, a core issue for ensuring an effective domestic response to marine environmental protection arises as result of the 1992 Convention on the Protection of the Black Sea Against Pollution, and its protocols. This regional agreement implements the UNCLOS obligations of States bordering enclosed and semi-enclosed seas to cooperate with other States of the region in coordinating ocean use management activities. The Convention is associated with a Commission and a regional strategy, the 1993 Black Sea Environment Program (BSEP), as well as specific measures on the protection and rehabilitation (restoration) of the environment of the Black Sea, as set out in the Ministerial Declaration on Protection of the Black Sea, 1993, and the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea, 1996.

The problem of harmful organisms and pathogens in ship's ballast water is not a local problem and its solution is connected with the initiatives of both the government of Ukraine as a whole and its separate ministries, departments and organizations. Because of the specific and complex nature of the domestic legislative regime the development of a comprehensive response to a particular issue or even amending existing instruments can entail action by many authorities and different levels and forms of legal instruments.

Several national and local State administrative bodies were identified as having a potential interest in ballast water management and control, however, the Ministry of Transport and its Department of Sea and River Transport appear to have the most direct involvement. Some remarkable regulatory activities at the administrative level are currently under way in Ukraine. An Instruction issued by the State Sea and River Transport Department (Order of the Ministry of Transport No 62 March 11, 2001) lays the ground for the enforcement of IMO's Guidelines for the control and management of ships' ballast water to minimize the transfer of harmful aquatic organisms and pathogens (Resolution A.868(20)). In addition Orders have been issued that require Harbour Masters of the merchant shipping ports to ensure data collection on ships' water ballast, in accordance with the standard IMO Guidelines' Ballast water reporting form. The Harbour Masters are responsible for registering the information and storing it for 10 years.

Regional Policies and Cooperation

All of the regions covered by the GloBallast Pilot Phase and those proposed to be added in GloBallast *Advanced* are covered by existing policies, structures and mechanisms for regional cooperation in the area of coastal and marine resource management and environmental protection, as outlined in Attachment One. These take the form of regional legal instruments (Conventions and Protocols), the UNEP Regional Seas Programme, other regional programmes including those implemented by NGOs such as IUCN and GEF 'sister projects'.

To varying degrees these existing regional structures and policies include elements relating to ship-based marine pollution and invasive aquatic species, placing certain obligations on participating countries to address these issues and as such providing additional country drivenness. They also provide potential vehicles for the regional implementation of activities under GloBallast *Advanced*.

Within the framework of these existing regional structures, under the GloBallast Pilot Phase, Regional Action Plans (RAPs) on Ballast Water Control and Management have been developed as follows:

- The Black Sea – Resolution and RAP adopted by Bulgaria, Georgia, Romania, Russian Federation, Turkey and Ukraine.
- The ROPME Sea Area – Resolution and RAP adopted by Bahrain, Kuwait, Iran, Oman, Qatar, United Arab Emirates and Saudi Arabia.

- East Asia – Resolution adopted and RAP developed by China, the Philippines, Japan, the People’s republic of Korea, the Russian Federation, the Republic of Korea and Vietnam.
- Eastern Baltic – Resolution adopted and foundations for a RAP developed by Estonia, Finland, Latvia, Lithuania, Germany, Poland, Sweden and Russian Federation.

The involvement of the Russian Federation as a partner in three different regional agreements regarding ballast water control and management is of key importance (Black Sea, East Asia and the Baltic Sea).

In all cases the regional countries called upon GEF, UNDP and IMO to continue their co-operative effort to support the activities envisaged for the future, including GloBallast *Advanced*.

It is expected that by the end of the GloBallast Pilot Phase Bangladesh, India, the Maldives, Singapore, Thailand and Sri Lanka will conclude similar agreements in South-Asia as will a range of countries on both the west and east coasts of sub-Saharan Africa. Sub-regional co-operation is also planned by Argentina, Brazil and Uruguay in South America.

A steadily growing demand from developing countries in other regions of the world that have not benefited from the pilot phase has been identified during the first years of implementation. Well established regional mechanisms such as HELCOM in the Baltic Sea, REMPEC in the Mediterranean Sea, SPREP in the Pacific Islands Region, RPAPS on the South East Pacific rim and REMPIETC in the Caribbean have expressed, on several occasions, their interest in becoming a part of the GloBallast Programme.

7 Context

Global

Global shipping moves approximately 80% of the world’s commodities. As the globalization of the economy continues, larger and faster ships make it possible for nations to keep pace with increasing demand for the rapid transportation of raw and finished products. In effect, technology is making it possible to reduce or eliminate the natural boundaries that have separated and helped maintain the integrity of natural systems for millennia. While the elimination and shrinking of boundaries through technology have yielded enormous economic benefits, and while continued development of larger and faster ships may be indispensable to the growing volume of world trade, there has been a negative and, until recently, largely unnoticed consequence. For as long as ships have transported goods between and among countries, species have been transported, both intentionally and unintentionally, into new environments. While many of these non-indigenous species introductions have been and continue to be innocuous, some have had disastrous economic and environmental consequences. Faster ships mean greater economy in the transport of goods. Unfortunately, faster ships and the consequent reduction in travel time between ports increase the likelihood of the survivability and “successful” introduction of potentially damaging non-indigenous species.

A drop of ballast water placed under a microscope may reveal a large variety of marine life. The reason that so many marine species can potentially be transferred in ballast water is because virtually all marine species have a planktonic stage in their life cycle. This means that while an adult prawn, clam or fish is highly unlikely to be transferred in ballast water, their planktonic eggs or larvae can be transferred. These may develop into adult populations once discharged at the destination port and establish an invading population of introduced marine species. Once established the introduced marine species can be harmless, but it may have mild to extremely severe impacts in the new host environment. These impacts may be ecological, economical or to human health. A list of the most notorious invasions caused by ballast water will include:

The European Zebra Mussel (*Dreissena polymorpha*), a small bi-valve shellfish, was introduced to the North American Great Lakes in ballast water from Europe in the 1980s. It had no natural predators or competitors in North America and now infests over 40% of the US inland waterways. As an encrusting species it grows in large colonies attached to hard surfaces, including rocks, wharves, pylons and within cooling water intake pipes of industry along the Great Lakes shoreline. It is estimated that since 1989 more than US\$1 billion in damages has been caused by this species in the US alone.

The Comb Jelly Fish (*Mnemiopsis leidyi*) was introduced to the Black Sea in the late 1970s from North America. It feeds by actively hunting zooplankton and exhibits massive fluctuations in population density in

response to environmental conditions. It is a superfluous feeder, consuming up to ten times its own weight per day and regurgitating excess ingested food (Kremer 1979). The reproductive success of *Mnemiopsis* is facilitated by the fact that it is a self-fertilising, simultaneous hermaphrodite.

By 1988 the jellyfish reached an estimated total biomass throughout the Black Sea of 1.10^9 tonnes wet weight, greater than the world's total annual fish landings (Sorokin 2001). It is believed to have contributed substantially to the near collapse of commercial fisheries in the Black Sea through reduction of plankton resources. The severe economic and ecological impacts of this invader provide one of the starkest case studies of the potential negative effects of ballast water introductions. Its invasion of the Black Sea raised concerns that it would also spread via ballast water to the Caspian Sea, via the Volga-Don River/Canal system, and indeed this has now occurred.

The toxic dinoflagellates introduced to several new areas around the globe through ballast water taken on during red-tide algal blooms. These microscopic algae spend much of their life cocooned as extremely tough cysts in seabed sediments. When environmental conditions become favourable, the cysts produce a motile planktonic phase – which is released into the water column where it reproduces in great numbers and forms red tides. These planktonic algae contain paralytic toxins which may be absorbed by filter feeding shellfish. Eaten by humans the contaminated shellfish may cause paralysis or even death. Several regions have suffered these introductions but probably the most notable example is Australia where the commercial oyster industry has at times been closed down and where extremely expensive testing and monitoring must now be maintained on a permanent basis.

The list of examples could continue as hundreds of marine invasions have been identified around the world. The introduction of harmful aquatic organisms and pathogens to new environments, including via ships' ballast water, has been identified as one of the greatest threats to the world's oceans. The transfer of invasive aquatic species in ballast water is perhaps the biggest environmental challenge facing the global shipping industry this century.

Most nations agree that the most effective actions to minimize the negative effects of ballast water transfer will come from a coordinated, cooperative global approach. There is consensus that unless all regions and countries act together, competition among ports, countries and regions will result in growing acrimony. Worse yet, a patchwork quilt of regulations could result in a drift toward adoption of the lowest common-denominator approach to mitigate the growing number of serious economic, environmental and public health effects deriving from uncoordinated ballast water management. There is general agreement that the IMO is the appropriate international organization to assume the continuing task of developing the necessary international, legally binding provisions for the management and control of ships' ballast water. The organization has responded to this 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 Ballast Water Convention), to be considered for adoption by an IMO Diplomatic Conference in early 2004, and
- joining forces with the Global Environment Facility (GEF) and United Nations Development Programme (UNDP) to assist developing countries to implement effective measures for ships' ballast water management and control.

Adoption of the new ballast water Convention in early 2004 will provide the much needed standardised, international regime to address this global threat and GloBallast *Advanced* will play a crucial role in supporting rapid implementation of the Convention, ensuring that adoption results in concrete action to actually reduce the threat posed by invasive aquatic species.

National Contexts

As this is a global project covering a large number of countries in many regions, it is beyond the scope of this Concept Paper to provide details on the National Contexts in all of the potential beneficiary countries. However, the six initial Pilot Countries provide a globally representative indication of national contexts from six extremely diverse regions, as described below. A general pattern of national contexts for developing countries can be derived from these examples, and include the following main elements.

- All countries are placing significant reliance on expansion of exports and therefore shipping and port activities, as part of their economic development plans.
- All countries have significant coastal and marine resource values and are dependent on these resources for both subsistence and economic activities.
- All countries are facing increasing risk of invasive aquatic species.
- All countries are prepared to commit resources to addressing the issue but require capacity building, institutional strengthening and technical assistance in order to do this effectively, including through regional cooperation and adoption of a standardised, uniform global regime.

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

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

At the federal level ballast water issues are shared by several agencies including the Ministry of Environment, which was the Lead Agency during the pilot phase, the Brazilian Navy and the Ministry of Health. In recognition of the importance given to this problem the Federal Government has allocated US\$240,000 to boost further scientific research. Brazil is actively contributing to the debate on the adoption of an international convention to regulate ballast water discharges.

China was the selected Pilot Country for East Asia and the port of Dalian serves as a demonstration site for the purpose of the GloBallast Programme. The Port is located on the south part of the Liaodong Peninsula. It is a natural port on the northeast coast of China. It faces the Bohai Sea to the west, the Yellow Sea to the east, and the Shandong Peninsula to the south. At its back is the vast landscape of Northeast China.

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

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

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

India represents the southern part of the Asian continent and Mumbai (Bombay) is the demonstration site. The port lies midway along the west coast of India, and possesses a deep harbour covering 400 square kilometers. The harbour is well protected by the mainland on its east and the Island of Mumbai to the west. Mumbai is a fully integrated, multi-purpose port handling container, ro/ro, dry bulk, liquid bulk, and general cargoes. The total handling capacity of the port in 1997 was 33,727,000 tons.

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

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

As a consequence of the successful awareness-raising campaign conducted during the GloBallast Pilot Phase the Indian Government decided to allocate US\$ 900,000 through its regular budget to support the implementation of ballast water management measures at the national level.

Iran was selected as the Pilot Country for the ROPME Sea Area and Khark Island is the designated demonstration site. The terminal is located in the North part of the Gulf and is Iran's largest port facility. The Sea Island Terminal is located on the West side of the island with two berths for vessels up to 500 000 dwt. The depth alongside these berths is 32.3 m. The terminal also provides two berths for vessels up to 300 000 dwt with a depth alongside of 29.8 m. The selection of Khark Island as a demonstration site was due to the enormous quantities of ballast water discharged in the very sensitive environment of the region. The Gulf is shallow, with a high water temperature, it hosts one of the largest arrays of marine biodiversity and experiences little exchange of water with surrounding marine areas through the Strait of Ormuz.

The management of the terminal and the operation of vessels are the responsibility of National Iranian Oil Company (NIOC), which is also in charge of cargo storage and handling. In addition to the loading and discharging facilities, the terminal provides pilotage, tug services and antipollution services. The maintenance of the terminal and the other essential facilities of a port (hospital, fire protection, etc.) are also responsibilities of the NIOC. The main functions of maritime administration are the responsibility of the Ports & Shipping Organisation (PSO). PSO inspectors perform vessel Traffic Control and Port State Control. Other departments and ministries with direct or indirect responsibilities regarding the ballast water issue include the Department of Environment, the Marine Environment Bureau, the Ministry of Jihad (fisheries), and the Oceanographic Commission. The Iranian Government is committed to addressing the ballast water problem especially in the recent context of a new invasion in the Caspian Sea, which may have devastating consequences.

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

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

Relevant governmental agencies, which are participating in the GloBallast Programme, include the Department of Transport, the Department of Environmental Affairs and Tourism, the Department of Health, and the National Ports Authority (NPA). The NPA is a public company that is responsible for port management in South Africa. Its responsibilities include maintenance of basic port infrastructure, construction and maintenance of breakwaters, channels, basins, quay walls, roads and rails in the port area. It also provides marine and navigational assistance services such as pilotage and tug assistance. One of the most important roles of the NPA is that of pollution prevention in port areas. In this respect NPA develops port environmental management strategies and establishes port pollution regulations based on South African and international laws and regulations. The South African Government is currently developing a policy on the management of ballast water to be adopted at national level.

Ukraine was selected as the Pilot Country for Eastern Europe. Odessa is one of the largest ports in the Black Sea and has served as demonstration site. Its location on historically founded merchant ways between West and East, closeness to the Bosphorus and Dardanelles, convenient exit to Mediterranean Sea and Indian Ocean, round-the-year navigation in the port, proximity to the big industrial and agricultural areas of the region make it a particularly attractive, heavily used port whose volume is growing rapidly. The port includes seven facilities for handling dry-cargo, passenger traffic, oil, and container handling. The port has the capacity to handle up to 14 million tons of dry-cargoes and about 24 million tons of oil products per year. Port passenger capability is up to 4 million passengers per year. Entering, leaving and shifting of vessels are constant and are assisted by a pilot service whose technical facilities allow manoeuvring in poor visibility. The open storage area is 215 400 sq. m, the warehouse area 78 800 sq. m., and the cargo storehouse can accommodate up to 13 500 tons at a storage temperature from -30⁰ C up to 8⁰ C. The port silo can store up to 60 000 tons of cereal product.

A list of handled cargo includes non-ferrous and ferrous metals, equipment, vehicles, chemical fertilisers (packed or in bulk), citrus fruits, bananas and other cargoes packed in bags, boxes, bags, barrels and containers. A significant part of Ukrainian port traffic is oriented towards Europe (14%), China (6%) with the largest part representing exchange and transit with CIS countries (42%). It may therefore be assumed that the largest amounts of ballast water discharged may originate from Europe and the Far East.

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

The neighbouring areas which are part of the northwestern shelf of the Black Sea are important nursery and feeding grounds for the Black Sea fisheries.

Responsibility for ballast water management and control is distributed over several agencies with the Ministry of Transport playing a leading role. In addition to the genuine commitment of Ukraine to address the ballast water problem at national level the country plays a catalyst role in fostering regional cooperation among the Black Sea countries.

New developments world-wide

To date, an unprecedented momentum of concerted international action has been precipitated by the GloBallast Programme. There is an overwhelming demand from developing countries for ongoing programmatic support for regional replication and technical assistance activities. A number of countries and regions have expressed strong interest in joining the Programme, including the Mediterranean region, the Pacific Islands Region, the Caspian Sea region, the Eastern Baltic countries, several South American countries and several African countries. This interest is increasing almost daily.

8 Project Rationale and Objectives:

Objectives

The overall objective of GloBallast *Advanced* is to assist developing countries to reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water. Related to this, two development objectives have been identified as follows:

- To build regional partnerships for the effective implementation of international arrangements for ballast water control and management, building on the experiences of the six Pilot Countries.
- To integrate regional ballast water programmes with other marine and coastal environmental management arrangements.

The inter-related immediate objectives of the project are:

- To establish institutional arrangements at national and regional level to address the ballast water problem;
- To ensure effective coordination and support mechanisms both at the global and regional level, including a global information clearing house function;
- To develop and implement regional action plans to minimize the transfer of harmful aquatic organisms in ships' ballast water;
- To assess the level and type of risks as well as the most sensitive resources and values that may be threatened;
- To support concerted and coordinated research and development of alternative, more effective ballast water treatment systems,
- To develop compliance monitoring and enforcement programmes to ensure maximum practicable compliance with IMO provisions;
- To promote noticeable changes in the shipping industry to mitigate the ballast water problem;
- To enhance national and regional capacity to address ballast water issues;
- To develop regional integrated invasive aquatic species strategies;
- To integrate the ballast water and invasive aquatic species programmes with existing marine and coastal management schemes;
- To facilitate cooperation among developing and advanced countries at regional level; and
- To develop sustainable financial and institutional arrangements for long term management and control of ships' ballast water.

The objectives of *GloBallast Advanced* should be a logical extension of the pilot phase, with a greater regional focus and more emphasis on integrated management. The project is designed to build on the regional approach established during the pilot phase and is based on the principle of integrated implementation. It aims to establish strategic alliances with other organizations and programmes that are endeavouring to address the problem of invasive aquatic species and it seeks to integrate ballast water management activities with other coastal and marine management programmes, thereby increasing cost-effectiveness and creating inter-programme synergies.

A number of baseline activities have already been initiated in the six regions targeted in the pilot phase. The GEF financed activities will ensure a standardized approach consistent with the internationally agreed methodologies and the replication of the experience achieved throughout the new regions that will benefit from the project.

The project will cover the initial six developing regions and additional new regions based on appropriate eligibility and their firm commitment, endorsed by relevant regional mechanisms already established in the respective regions.

Threats

The environmental problem associated with ballast water is that it may contain aquatic organisms taken on at the source port. These may be discharged with ballast water at the destination port where they may survive to establish an invading population of alien aquatic species.

The threats derived from this problem are:

- Ecological: Invasive species in general are considered to be the second greatest threat to biodiversity after habitat loss, and the ecological impacts of invasive aquatic species are most often irreversible);
- Economic: Losses associated with invasive species in general have been estimated at US\$138 billion per year in the USA alone, and for invasive aquatic species are likely to be in the order of billions of dollars globally;
- Epidemiological: Ballast water may create a long-distance dispersal mechanism for human pathogens, toxic organisms and waterborne disease, and coastal populations in developing countries are particularly vulnerable.

Ecological Threats

The development of larger, faster ships combined with rapidly increasing world trade means that natural barriers to the dispersal of species across the oceans are being reduced. As a result, whole ecosystems are being changed with, sometimes catastrophic consequences for the marine environment. Without natural predators or competitors invasive species are spreading rapidly and displacing native species, altering habitats and changing ecology.

Alien species that have no natural enemies, can reproduce dramatically and cause tremendous damage to marine biodiversity. Several of the world's most famous sanctuaries are currently at threat from invasive species.

What makes the ecological threat even more serious is the fact that, once established, an invasive species is virtually impossible to eradicate. It is widely agreed that an invasive species can only be contained if detected at a very early stage, however the costs involved are in many cases unbearable for most developing countries. Apart from affecting the natural habitat, species composition and eco-system functioning, many invasions have been compounding other related threats such as pollution.

Economic Threats

The shipping industry is the backbone of international trade and the trend for its growth is upwards. It is expected that the number of ships in use will triple during the coming decades, which will put additional pressure on the marine environment. Ships are getting faster and the consequent reduction in travel time between ports increases the likelihood of new introductions of potentially damaging alien species.

Harmful organisms transported in a ships ballast water have had some very severe economic impacts. It is estimated that commercial losses due to ballast water transfers are in the range of billions of dollars and the figures are likely to increase.

Encrusting species, such as Zebra Mussels, grow in large colonies attached to hard surfaces including rocks, wharves and cooling water intake pipes for industrial purposes. They may clog the water intake filters causing major disruption and requiring costly cleaning operations.

More recently massive aggregations of alien jelly fish have caused severe disruptions to liquid natural gas plants in the ROPME Sea Area region resulting in complete plant shutdowns and significant commercial losses.

A number of recent case studies have revealed the significant threat posed by invasive aquatic species to aquaculture. Toxic dinoflagellates may be transferred when ballast water is taken on during a red-tide bloom. When discharged at the destination port they may bloom, be absorbed by filter-feeding shellfish and cause

human paralyses or even death when ingested by humans. In cases aquaculture farms have had to be temporarily closed down and extremely expensive testing and monitoring maintained on a permanent basis.

Fisheries can also be under threat from invasive aquatic species. The invasion of the comb jelly fish in the Black Sea caused massive reductions in plankton and nearly collapsed the anchovy and sprat fisheries in the region. The sturgeon fisheries in the Caspian Sea are currently at threat from the same invasive species and the economic consequences may be disastrous.

Alien species may also affect the tourism industry. Algal blooms or increased fish mortality caused by dinoflagellates may foul the beaches and disrupt pristine environments traditionally known as tourist attractions.

Epidemiological Threats

Given the magnitude of ongoing ballast water transfers large scale movement of micro-organisms by ships has retained the attention of both invasion biologists and epidemiologists. *Vibrio Cholerae*, the bacterium that causes human epidemic cholera, has been detected in the ballast water of virtually all ships tested world wide. While *Vibrio Cholerae* and other potential pathogens may be normal constituents of coastal waters, they do not ordinarily occur in high enough concentrations to cause human health problems. However, with expanding world trade and an increasing number of ships moving among international ports the transfer of microbes could well be the most insidious threat related to ballast water discharge.

Some cholera epidemics appear to be directly associated with the international carriage and discharge of ballast water. One example is an epidemic that began simultaneously at three separate port cities in Peru in 1991, sweeping across South America, affecting more than a million people and killing more than ten thousand people by 1994. Of interest, this strain had previously been reported only in Bangladesh.

Finally, a last major inter-related problem resides in the transboundary character of the phenomenon. Invasive species do not recognize political or geographical boundaries and therefore any strategy for tackling this problem should involve a regional dimension. Countries will have to cooperate to identify the highest common denominator approach to control the various threats deriving from uncoordinated ballast water management.

The danger of a fragmented, patchwork approach is that differences may arise between each regulatory system. Because shipping is an international industry, with ships passing across jurisdictional lines in order to conduct trade, differences between regulatory systems can create extreme compliance difficulties and significant cost implications for the industry and, ultimately, for consumers around the world.

Underlying Causes

The threats to the world's oceans and coastal population described above have a number of underlying causes, including:

- Shipping is probably the most international industry and ships must cross boundaries to conduct trade.
- As global economic development and globalization of markets and trade continue shipping is predicted to treble in volume in coming decades, existing ports are being expanded, new ports are being built and new trade routes are being opened up.
- Action to minimize the transfer of harmful aquatic organisms and pathogens via ships' ballast water when taken in isolation, by individual countries, is of limited or even no effectiveness.
- Government agencies do not have the capacity to manage ballast water discharges and inter-sectoral cooperation mechanisms are inadequate.
- Government actions and national action plans are not coordinated with those of other countries at a regional level.
- Agencies responsible for ballast water management and control have little incentive to work closely with counterpart agencies at the regional level.

- There are few incentives to ensure adequate measures to control ballast water discharges beyond a country's territorial waters.
- Efforts by the non-governmental community and potentially affected constituencies are not coordinated at the regional level.
- There are insufficient regulations to control ballast water discharges and there is a lack in the legal framework necessary to incorporate the appropriate regulations.
- Standards, regulations and enforcement, where applicable, vary from country to country.
- Biological science cannot predict with any certainty whether a species that is environmentally benign in its native environment will continue to be benign when introduced into a new location.
- Once an exotic organism is established it is virtually impossible to eradicate.
- Data and information on ballast water discharges and marine bio-invasions is limited and the exchange of information at a regional level is very poor or quasi-inexistent.
- Fragmented and very incomplete monitoring of ballast water discharges and invasive aquatic species.
- Poor and inconsistent risk assessment capacity.
- At present there is no system or practice in use that will totally prevent the introduction of unwanted organisms nor off-the-shelf technology to treat the ballast water on board ships.
- Any method to minimize or prevent the introduction of unwanted species needs to be safe for the ship and crew, environmentally acceptable, practicable and cost-effective.
- Low priority is given to the ballast water issue because of competing demands and as a consequence few, if any, resources are committed to the effort.
- Finance and financial mechanisms to address the ballast water problem are inadequate.
- Governments and relevant stakeholders do not pool resources.

Baseline Scenario

To date, an unprecedented momentum of concerted international action has been precipitated by the GloBallast Programme. There is an overwhelming demand from developing countries for ongoing programmatic support for regional replication and technical assistance activities. A number of countries and regions have expressed strong interest in joining the GloBallast Programme and this interest is increasing almost daily.

The World Summit on Sustainable Development (WSSD) urged IMO to finalize the International Convention for the Control and Management of Ships' Ballast Water and Sediments and the IMO Member States are currently endeavouring to reach agreement on the final text. It is anticipated that the Convention will be adopted at an IMO Diplomatic Conference in early 2004.

However, the efforts made by developing countries, as the main recipients of ballast water, to adopt and implement the Convention tend to be fragmented and un-coordinated. Given the above underlying causes, it is unlikely that emerging national efforts would lead to the mitigation of the impacts of uncontrolled ballast water discharges. The absence of a standardized approach at a regional level means that effective measures to address the ballast water problem cannot be taken. The lack of co-ordinated action by the various stakeholders and the insufficient capacity to deal with invasive species in ships' ballast water will continue to remain a major barrier to the effective implementation of ballast water control and management measures in developing countries.

The few current initiatives are limited by financial constraints and focus on impacts rather than addressing the root causes. The much needed exchange of information and concerted action at the regional level is in most

cases insufficient and lacks consistency and internationally agreed standards. It is anticipated that without further activities under GloBallast *Advanced* the international Convention will go through an unnecessarily long process of implementation and its entry-into-force will be significantly delayed, leading to the proliferation of detrimental, and sometimes devastating, impacts on coastal populations, the marine environment, and biodiversity. Such a scenario would result in wasting the momentum generated by the GloBallast Pilot Phase and would represent a major loss in terms of time, human resources and funds invested to date in addressing the issue.

Alternative Scenario

A consequence of the aggressive awareness raising campaign conducted during the GloBallast Pilot Phase has been the growing interest in ballast water issues in a constantly increasing number of developing countries. Encouraging responses have been received from regional organizations in charge of the protection of the marine environment and they are planning to include the ballast water issue on their agenda of priorities. UNEP Regional Seas Programmes and regional GEF projects dealing with Integrated Coastal Management (ICM) and Large Marine Ecosystems (LME) have also expressed their interest in including ballast water management and control in their regional strategies. However, these are only good intentions that will not materialize in self supporting regional mechanisms to properly address ballast water as a vector for invasive aquatic species without GEF intervention.

The absence of support, and the lack of co-ordination and standardized approaches at a regional level, will discourage emerging initiatives and bring additional difficulties to the implementation of an international regime for the control and management of ballast water, which means that the transfer of unwanted species with its notorious impacts on the environment, economy and human health will continue.

During the proposed regional implementation phase the project will provide a programmatic framework for the sustainable replication of ballast water management and control measures, ensuring that maximum benefits accrue from the foundation work achieved in the pilot phase. The aims and objectives of the regional implementation phase will be a logical extension of the initial project, with a greater regional focus and an emphasis on integrated management. This will help developing countries to:

- build regional partnerships towards an effective implementation of anticipated international arrangements;
- develop and implement national and regional integrated invasive aquatic species strategies and action plans; and
- integrate regional ballast water and invasive aquatic species programmes with other marine and coastal environmental management arrangements.

Regional management mechanisms will be operationalized and specific management tools developed. GloBallast *Advanced* will delegate most of the operational responsibilities to regional coordinators integrated in the already existing regional mechanisms. Support for appropriate institutional arrangements will be granted and regional strategies and action plans will be further developed. Formalized communication systems through identified lead agencies will be developed at the regional level and regional early warning systems for invasions and outbreaks will be established. Priority soft and hardware will be designed and direct logistic support from the existing regional mechanisms will be sought. Some incremental investments will be supported by the proposed GEF project. Standardised protocols and methodology for conducting port biological surveys and risk assessments will be provided with direct assistance from the capacity built in the pilot phase.

Specific training on ballast water management and control will be provided, based on the training courses developed during the pilot phase, with emphasis on various responsibilities under the new international Convention. Sustainable financial and institutional arrangements for the long-term management of ships' ballast water will be established, including possibly the mobilization of public and private sector funding.

The global information clearing house function established by the PCU during the Pilot Phase will be continued and further strengthened, in support of a uniform approach to the issue in each region.

In essence, the proposed GEF project will build on the findings, institutional settings and capacity developed during the pilot phase. The results of this GEF intervention should include a reduction in aquatic bio-invasions

with a significant mitigation of the detrimental, sometimes devastating, effects of ballast water transfers, better protection of marine and coastal ecosystems and habitats and conservation of biodiversity.

Why should GEF get involved at all?

The introduction of harmful aquatic organisms and pathogens to new environments is a major threat to the world's oceans. Ships are crossing national jurisdictions to conduct trade and therefore aquatic bio-invasions related to ships' ballast water are transboundary in nature. Oceans cover 70% of our planet and nearly 50% of the world's population live in coastal areas and therefore protection of the marine environment is beyond the scope of one country and has global benefits.

IMO has established a permanent position within its Secretariat to coordinate ballast water related issues. However, the broader scope of this proposal is beyond IMO's regular mandate and additional resources are required if the demand for technical assistance from developing countries, and the needs outlined in this proposal, are to be met.

A number of Governments, mainly in the six developing regions targeted by the pilot phase of the project, have expressed their commitment to cooperating at a regional level. However, existing mechanisms to operationalize this commitment are limited and hindered by lack of communication and consistency. GEF support can ensure that the growing interest of developing countries in the ballast water problem leads to action. Specifically, with GEF support, sustainable mechanisms to properly address the issue will be established at a regional level and the often catastrophic effects of marine bio-invasions will be minimized and possibly eliminated.

Finally, the project will provide additional confirmation for the catalytic role of GEF in demonstrating ways to overcome the barriers to the adoption of best practices limiting biological contamination of international waters.

9 *Expected outcomes and activities of Full Project*

The concrete results expected at the end of the project are closely related to the immediate objectives previously identified as follows:

- i. To establish institutional arrangements at national and regional level to address the ballast water problem;
- ii. To ensure effective coordination and support mechanisms both at the global and regional level, including a global information clearing house function;
- iii. To develop and implement regional action plans to minimize the transfer of harmful aquatic organisms in ships' ballast water;
- iv. To assess the level and type of risks as well as the most sensitive resources and values that may be threatened;
- v. To support concerted and coordinated research and development of alternative, more effective ballast water treatment systems,
- vi. To develop compliance monitoring and enforcement programmes to ensure maximum practicable compliance with IMO provisions;
- vii. To promote noticeable changes in the shipping industry to mitigate the ballast water problem;
- viii. To enhance national and regional capacity to address ballast water issues;
- ix. To develop regional integrated invasive aquatic species strategies;
- x. To integrate the ballast water and invasive aquatic species programmes with existing marine and coastal management schemes;
- xi. To facilitate cooperation among developing and advanced countries at regional level; and

- xii. To develop sustainable financial and institutional arrangements for long term management and control of ships' ballast water.

The expected outcomes will include: increased public awareness and support for ballast water management approaches; strong and continuing presence of ballast water management and control capacity in the main developing regions of the world; adoption of standardized regional approaches consistent with IMO requirements; global network of IMO coordinated research and monitoring centres for ballast water transfers; increased level of protection and conservation of habitats and species of global significance; protection of commercial fishery and aquaculture activities in and around coastal areas where ballast water exchange takes place; protection of other economic activities including coastal industries; increased levels of protection of human health; minimization of the loss of coastal biodiversity and degradation of coastal environments; and informed and effective developing countries participation in the ballast water management and control process at global level.

The following table identifies likely outcomes and indicative activities for the proposed project that will be fine-tuned during the implementation. The project will be co-financed through baseline and cost-shared incremental funding. In the table, activities marked * are not fully incremental and will be co-financed. Additional co-financing will be sought for fully incremental activities.

Generally, GEF funds will focus on institutional arrangements, regional policy and strategy and capacity building at national and regional level. Some GEF incremental funding will be dedicated to scientific activities (e.g. measurements, base line surveys, risk assessments, databases, monitoring), although much of this will be undertaken with support from national scientific organizations and using the resources already created in the pilot phase. GEF may also partially support the development of integrated marine species strategies, co-funding being sought from Governments and relevant NGOs. GEF seed-money may be provided to support outstanding regional pilot initiatives to address the root causes of ballast water problem. Cooperative arrangements will be established with the GloBallast host organizations at the regional level and additional sources of co-financing from the industry will be explored during the project implementation. It is anticipated that by the end of the project GEF will have assisted to establish long-term sustainable financial mechanisms for ballast water management and control.

INDICATIVE ACTIVITIES	LIKELY OUTCOMES
<p>(i) Optimize and improve the existing structure of the PCU.*</p> <p>Identify appropriate regional organizations and Lead Agencies and establish CFP networks in each respective region.*</p> <p>Assist in establishing interministerial task forces at national level including academia, NGOs and other stakeholders involved in ballast water management and control.</p>	<p>Effective institutional arrangements at national and regional level to address the ballast water problem in place and operational.</p> <p>Lead Agencies in the participating countries identified and committed to cooperate at regional level.</p>

INDICATIVE ACTIVITIES	LIKELY OUTCOMES
<p>(ii) Conclude administrative arrangements with host organization for coordination of activities at regional level.*</p> <p>Recruit and hire regional officers to undertake the day-to-day implementation of the project.</p> <p>Strengthen and further develop the global information clearing house function at IMO (PCU). Establish communication and information technology systems at regional level connected with IMO's Clearing House Mechanism.*</p> <p>Continue and customize the awareness campaign for ballast water management and control.</p>	<p>PCU coordinated network of regional officers with operational responsibilities established.</p> <p>Regional capacity for transboundary ballast water management and control established and operational.</p> <p>Effective communication at regional and global level established, improved exchange of information.</p> <p>Awareness raised at all levels, including high political and decision making levels and increased public support for ballast water management and control measures.</p>
<p>(iii) Undertake analysis and consultations.</p> <p>Prepare detailed feasibility studies for pilot initiatives to address the root causes of the ballast water problem.</p> <p>Draft regional work plans with secured budgets.*</p> <p>Organize workshops to approve regional plans and facilitate concerted action.*</p> <p>Preparation of Annual Implementation Plans (AIPs) including financing plans.</p>	<p>Regional Action Plans developed and approved at Government level. The plans will clarify the overall goals, objectives and responsibilities, coordination and management arrangements and will determine sources of funding.</p> <p>Annual, action oriented AIPs approved at government level and setting the objectives, outputs, activities, responsibilities, timelines for the respective year as well as budgets and funding sources.</p>
<p>(iv) Organize familiarization workshops and training sessions on port baseline surveys.*</p> <p>Undertake review of existing data on native biodiversity and introductions.</p> <p>Conduct port surveys using the protocols developed in the GloBallast Pilot Phase.*</p> <p>Organize workshops and training sessions on risk assessment methodologies.*</p> <p>Conduct ballast water risk assessment using the methodology developed in the GloBallast Pilot Phase.*</p> <p>Create regional databases and resource centres and explore possibilities of involving NGOs in their future maintenance and update.*</p>	<p>Improved information and knowledge on marine introductions. Increased exchange of information at regional level.</p> <p>Improved assessment of risks and identification of most sensitive resources and values at threat.</p> <p>Shared databases and harmonized monitoring. Establishment of regional information centres with direct involvement of non-governmental regional capacity.</p> <p>Global network of research and monitoring centres for transfers of harmful aquatic species in ships' ballast water.</p>
<p>(v) Organize global and regional ballast water treatment R&D symposiums and seminars.</p> <p>Support ballast water treatment R&D pilot projects in developing countries.</p>	<p>A more concerted, coordinated global R&D effort.</p> <p>Greater potential benefits to developing countries from ballast water treatment R&D that is more suited to their conditions and circumstances.</p>

INDICATIVE ACTIVITIES	LIKELY OUTCOMES
<p>(vi) Organize workshops to assist countries to develop national/regional policies on ballast water management and control.*</p> <p>Prepare proposals for legislation and economic incentives to promote sustainable ballast water management and control measures.</p> <p>Develop compliance monitoring and enforcement systems based on IMO's provisions and recommendations.*</p> <p>Implement compliance monitoring and enforcement systems at national level and ensure effective communication and exchange of information at regional level (see existing MoUs for port State control).</p>	<p>Reformed policy and legislative framework at national and regional level providing incentives for effective ballast water management and control in compliance with IMO's requirements and recommendations.</p> <p>Increased exchange of information on compliance monitoring at regional level and improved enforcement of IMO provisions through PSC MoUs.</p> <p>Increased level of protection of marine habitats and economic activities in coastal zones. Enhanced level of protection of human health and minimization of loss of coastal biodiversity.</p>
<p>(vii) Introduce necessary requirements in legislation regarding Standards for Training, Certification and Watchkeeping (STCW).</p> <p>Include relevant requirements on ballast water management and control in the regular curricula of specialized training institutions.</p> <p>Assist in preparation of Ballast Water Management Plans in compliance with IMO requirements and recommendations.*</p>	<p>Standardized requirements for ballast water management on board vessels and training of seafarers.</p> <p>Development of ballast water management and control plans consistent with IMO requirements and recommendations.</p>
<p>(viii) Adapt and deliver the training package developed in the GloBallast Pilot Phase.*</p> <p>Organize specialized training for data collection and database preparation.*</p> <p>Develop regional capacity for the use of information management systems and communication techniques.*</p>	<p>Regional/national capacity and necessary expertise to address ballast water introductions and implement necessary measures for ballast water management and control created.</p>
<p>(ix) Strengthen cooperation with projects and organizations involved in marine invasions species issues.</p> <p>Attend specialist meetings of relevant organizations related to invasive aquatic species and their introduction in new environments.*</p> <p>Develop common strategies to address invasive aquatic species.*</p>	<p>Extensive exchange of scientific information and data facilitated.</p> <p>Integrated and cost effective strategies to address invasive species issues developed.</p>
<p>(x) Establish cooperative relations with projects or institutions involved in large marine ecosystems (LME) and integrated coastal management (ICM).</p> <p>Develop integrated strategies and share relevant information with projects and institutions involved in LME and ICM.</p>	<p>Comprehensive marine and coastal management schemes including ballast water management and control developed and operational.</p> <p>Effective exchange of information and better use of existing resources avoiding duplication and unnecessary parallel structures.</p>

INDICATIVE ACTIVITIES	LIKELY OUTCOMES
(xi) Organize regular regional meetings to mobilise, channel and coordinate donor resources.* Initiate business development activities to overcome barriers to private sector funding.	Cooperation fora established at regional level and formal mechanisms to coordinate donor resources developed. Increased participation of the private sector in activities related to ballast water management and control.
(xii) Review the opportunities for self-financing of the ballast water management and control arrangements at national and regional level on an ongoing basis. Identify potential donors and organize formal and informal meetings to coordinate donor resources.* Mobilize funding from relevant industries involved in ballast water transfers and coastal and marine activities.	Public, private and international funding identified throughout the project life and sustainable long term financial scheme developed at regional level.
(xiii) Implement pilot initiatives to address root causes at regional level.	Region specific outcomes.

10 Sustainability (financial, social, environmental) and replicability of the full project

Financial

The project will address the financial constraints throughout its duration. Financing strategies will be included in the Regional Action Plans and defining the sources of finance will be a prerequisite of RAP approval. The regional coordinators will be encouraged to identify and secure sources of funding for the development and implementation of the RAPs within each region. Strategic partnerships will be initiated with Global Invasive Species Program (GISP), the World Conservation Union (IUCN) and the United Nations Environment Programme (UNEP) for the funding of the regional strategies and specific activities of common interest. Such an alliance will provide an extremely powerful mechanism to address invasive aquatic species from a regional and global perspective in an integrated and meaningful way. Expert advice and support to ensure the financial sustainability of the project will be sought from International Funding Institutions (IFIs) (e.g. World Bank, Regional Development Banks, etc.) or specialized international consultants. As part of the financial strategy, incentives to stimulate investment into ballast water related activities will be explored and barriers to private sector funding will be assessed and measures implemented for their removal. Donor conferences and informal meetings will be held in line with resource mobilization strategies to channel grant and concessional funding towards implementation of the RAPs.

Institutional

Sustained governmental commitment is essential to the healthy continuation of the project. The current field structure of Government-paid National Focal Points will be extrapolated at regional level to ensure a long-term self-sustaining basis. Specific provisions regarding ballast water management and control at regional level will be included in the existing government cooperation mechanisms (Regional Conventions) to ensure long-term governmental commitment to the Regional Action Plans and continuation of ballast water activities after GEF's intervention. Integrating GloBallast with existing regional organizations will help to reduce administration costs and create inter-programme synergies. Partnership agreements (MoUs) will be concluded by GloBallast/IMO with the host regional organizations on a win-win basis. The project will encourage involvement of regional non-governmental networks in the implementation process to allow independent "watchdog" feedback and to maintain pressure on the governments.

Partnership and participation are key to the successful replication of GloBallast at the regional level. The stakeholders analysis conducted in the pilot phase has indicated that key partners would include relevant government agencies (e.g. maritime administrations, environment agencies, etc.), scientific community, industry representatives, financial community (private and other donors), GEF, GEF Implementing Agencies (IAs) and GEF "sister" projects. The active participation of all the stakeholders will be ensured through the establishment

of the Country Task Forces (CTF) and the roles and responsibilities of all partners will be stipulated in the RAPs.

Replicability

The concept of GloBallast represented a totally new approach in IMO's history through providing technical assistance to developing countries prior to the Convention being adopted. This will significantly reduce the time for ratification of the instrument by a sufficient number of countries and for its entry-into-force. The response received from the Pilot Countries has been particularly encouraging and the successful practices can be applied to other projects. GloBallast *Advanced* will share its experience and findings with other GEF International Waters projects involved in marine and coastal management (ICZM and LME) and will provide the necessary tools to address the ballast water issue in an integrated manner. The project will promote dissemination and replication of its best practices and lessons learnt through the Clearing House Mechanisms (CHM) established at IMO Headquarters and through communication specialized projects such as GEF IW: LEARN. The training package designed using Train-X methodology will be made available worldwide through the Train-X network.

11 Country Eligibility

The project will mainly fund participation of the developing countries, eligible for GEF support, and some regional activities with a direct impact on developing countries. Non-eligible countries will be expected to finance their participation in project activities.

12 Stakeholders involved in the project

As ballast water problems are inter-disciplinary in nature the success of the project depends on the full involvement of a broad group of stakeholders. Experience from the pilot phase has provided a good indication of the main actors involved in ballast water management and control. Without precluding the participation of additional partners in the regional replication phase, the following institutions and organizations are likely to be involved:

- Maritime administrations
- Environmental agencies
- Ministries of agriculture (fisheries)
- Ministries of health (quarantine and sanitary services)
- Coast-guard and navy
- Parliamentary committees for environmental protection
- Shipping and port industry
- Oil and gas industry
- Mining industry
- Representatives of the scientific communities
- Relevant NGOs
- Local government agencies
- Donor community and international financial institutions.

Full consultation of the key players will be ensured at the national level through the establishment of Country Task Forces. The Country Focal Points, who will form the nucleus of the Regional Task Force (RTF), will bring the inputs and recommendations of their CTFs forward at regional level. In specific situations when specialized issues are discussed the RTF may be strengthened with additional members from the respective specialized sectors. The RAPs will provide roles, responsibilities and relationships among the stakeholders and suggest mechanisms for their optimal involvement in the project activities. The Country Task Force will review the RAPs and the stakeholders will be given the opportunity to comment on the proposed activities. This will ensure ownership and will facilitate smooth implementation. The stakeholders will benefit throughout the project from studies, workshops, training, reviews and legal and institutional analysis.

13 Information on Project Proposer

The project proponents are the Governments of the six Pilot Countries supported by the other countries in their respective regions that have already expressed their commitment by adopting RAPs and related Resolutions.

Letters of Intent from relevant regional organizations hosting the project will also be produced to support the project before formal agreements (MoUs) are concluded between GloBallast/IMO and the respective organizations. Signatures from the relevant Governments will be provided before the approval of the full sized project as required by the usual procedures for International Waters projects.

The project will be implemented by UNDP and executed by the International Maritime Organization (IMO). IMO is the specialized agency of the United Nations responsible for maritime safety and the prevention of pollution from ships and has provided significant “added-value” during the GloBallast Pilot Phase. IMO is greatly respected in all shipping industry matters and its reputation of thoroughness gives the project a very necessary priority and level of importance. IMO is also instrumental in smoothing out political and diplomatic asperities at the regional and global level and is, without doubt, the most appropriate Executing Agency. UNDP will continue to ensure appropriate linkage with related GEF and other internationally supported projects, notably relations with International Waters projects involved in marine and coastal zone management.

To facilitate the donors’ coordination and strengthen financial leveraging capacity, IFIs may be involved in the management of the components for the financial implementation of RAPs and in the preparation and organization of donor conferences.

A project steering committee (Global Task Force) will be established and will consist of representatives of all the regions involved in the project, UNDP/GEF, IMO, the IFIs and other donors. The steering committee will approve the Project Implementation Plan, RAPs and major project outputs.

The existing cooperation with the International Association of Independent Tanker Owners (INTERTANKO), Oil Companies International Marine Forum (OCIMF), International Chamber of Shipping Limited (ICS), Friends of the Earth International (FOEI), International Union for Conservation of Nature and Natural Resources (IUCN) and other major NGOs with an interest in ballast water and invasive species will be continued and enhanced by inviting their representatives to observe the meetings of the steering committee.

14 *Financing Plan of the Project*

GEF will finance most of the incremental costs of the project including costs to prepare the RAPs, costs related to implementing soft investments (institutional policy, capacity building, databases, etc.) and costs to initiate a limited number of strategic demonstration projects to address the root causes of the ballast water problem. Priority hardware costs will also be supported by the GEF. The indicative budget required for the regional implementation of GloBallast *Advanced* comes to US\$ 20 million over the proposed five years. Co-financing from the participating governments, other projects and regional organizations will be sought as a prerequisite of the adoption of the RAPs. Additional co-financing from the private sector (shipping and ports, oil and gas industries, mining, etc.) will be explored and it is hoped that cost sharing may cover 50% of the projects expenditure which will reduce GEF effort to US\$ 10 million. Throughout the duration of the project further donor support will be explored with assistance from IFIs or expert advice from international consultants. It is expected that at the end of the project long-term sustainable financial mechanisms will be operational at regional level and ballast water management and control activities will be included in the regular budgets of the respective regional organizations.

15 *IA Coordination and Synergies with other Organizations and GEF Projects*

Replication of GloBallast at the regional level will require an integrated approach. It is increasingly recognized that it is more effective and efficient to take a more holistic, integrated approach to the management of invasive aquatic species. In addition, various international guidelines on the management of invasive species produced by GISP, IUCN and technical groups under the Convention on Biological Diversity (CBD) adopted a similar integrated approach. GloBallast should follow the international trend and develop a more holistic attitude towards the management of invasive aquatic species while retaining its technical focus on ballast water management. This can be achieved by liaising and collaborating more closely with other international groups involved in matters related to invasive aquatic species, such as GISP, IUCN and the United Nations Environment Programme and its CBD, the International Council for the Exploration of the Seas (ICES), the Intergovernmental Oceanographic Commission (IOC), the UN Food and Agriculture Organization and the World Health Organization. The successful integration of GloBallast will rely on good coordination amongst the GEF IA and the above organizations. To ensure this the IA and the relevant organizations, as described

above, will be involved from the outset through the implementation process and will be invited to the steering committees.

The project is complementary to several GEF projects focused on integrated coastal zone management and large marine ecosystems and can offer the necessary ready-made tools to address invasive species transferred through ships' ballast water. This will be achieved in the broader context given by their objectives. The IA may assist significantly by fostering communication and cooperative linkage between GloBallast and these particular projects.

16 *Proposed Project Development Strategy*

As GloBallast is well established and is currently implementing its pilot phase it may not be necessary to undertake a PDF B stage. It is anticipated that the full project brief, incorporating comments received from independent reviewers and GEF, will be submitted to the GEF Council for review in the second half of 2003. This could ensure a seamless transition from the pilot phase of the project to regional implementation, maintaining the unprecedented momentum of concerted international action precipitated to date. The proposed development strategy will coincide with the adoption of the International Convention for the Control and Management of Ships' Ballast Water and Sediments and will meet the continuously growing demand for technical assistance from developing countries.

The project will assist developing countries in their efforts towards the implementation of the new Convention and significantly reduce the gap between the Diplomatic Conference for the adoption of the instrument and its entry-into-force.

The project brief will establish the project management and decision-making mechanisms and will identify the most appropriate regional arrangements to host the regional officers. Based on the project brief a Project Implementation Plan (PIP) will be developed, and RAPs derived from the PIP will be approved for each region during the first year. The project brief will include a stakeholder participation plan, will cost out all the activities, undertake an incremental cost analysis and prepare a financial package.

17 *Response to Reviews*

Attachment One: Existing Regional Structures (with marine resource aspects) (NB. To be completed)

Region	Regional Organization(s)	Regional Programme(s)	Regional Legal Instrument(s)
East Africa	IMO Regional Office UNEP EAF/RCU	IUCN Regional Marine Programme	Nairobi Convention
West Africa	IMO Regional Office UNEP WACAF/RCU		Abidjan Convention
Baltic Sea	HELCOM	GEF Baltic Sea Regional Project	Helsinki Convention
Black Sea	Istanbul Commission	Black Sea Environment Programme.	Bucharest Convention
Caspian Sea		Caspian Sea Environment Programme	
East Asia	UNEP ROAP UNEP EAS/RCU COBSEA APEC ASEAN	PEMSEA YSLME NOWPAP GEF South China Sea	
Mediterranean	UNEP MAP REMPEC		Barcelona Convention
Pacific Islands	SPREP SPC FORSEC	PACPOL	Apia Convention Noumea Convention
Red Sea & Gulf of Aden	PERSGA		Jeddah Convention
ROPME Sea Area	ROPME-MEMAC		Kuwait Convention
South Asia	SACEP	IUCN Regional Marine Programme	
South America	ROCRAM CPPS		Lima Convention
Wider Caribbean	UNEP CEP/RCU REMPIETC-Carib		Cartagena Convention



More Information?

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