

Global Project Task Force (GPTF) Third Meeting

GOA, INDIA, 16-18 JAN 2002

Proceedings

Global Ballast Water
Management Programme





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Published in November 2002 by:

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The correct citation of this report is:

Global Ballast Water Management Programme. 2002. *Global Project Task Force (GPTF), Third Meeting, Goa, India, 16-18 January 2002: Proceedings*. IMO London

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

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

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Group photograph



Provisional Agenda

Wednesday 16 Jan

Conference Room, Hotel Cidade de Goa (GloBallast team only)

AM: Bilateral meetings PCU/Pilot Countries

PM: Consultant's presentation and planning discussions on forthcoming Risk Assessment (tentative).

Thursday 17 Jan:

Conference Room, National Institute of Oceanography (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. Consultant's presentation and discussions on forthcoming Risk Assessment (if not possible on Weds).

Friday 18 Jan:

Conference Room, National Institute of Oceanography (full GPTF - commences 09:00).

5. NGO/Industry information papers regarding involvement in the ballast water issue.
6. Information on the proposed IMO/Pilot Countries MoUs
7. Port Baseline Surveys
8. BWM training package
9. Compliance Monitoring & Enforcement
 - 9 (b). Ballast Water Sampling
10. Legislative Review
11. Regional Cooperation & Replication
12. Resourcing & Financing
13. TV Documentary
14. GloBallast *Advanced*

Briefing Papers and Submissions

Agenda Item 2: PCU Progress Report

For the Period 1 January to 31 December 2001

General Comments

During the reporting period, the PCU achieved most of the objectives assigned by the 2nd GPTF meeting and outlined in the revised Project Implementation Plan (PIP).

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.
- 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 first UNDP/GEF Project Implementation Review (PIR) 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.

Human Resources

The Principal Administrative Assistant left to pursue further studies at the end of his initial 12 month contract in April 2001 and a series of temporaries were engaged until filling of the post in September 2001.

Use of consultants for short-term activity-specific assignments increased although administrative delays in the recruitment of consultants continued to be experienced.

In order to supplement PCU human resources approaches were made to Norway and Germany for the recruitment of an Associated Professional Officer (APO) as provided in the original Project Document, paragraph 121. Discussions are continuing and alternative suppliers are also being sought.

It has become clear during the last two years that PCU workload requires a second administrative assistant. This will be met in 2002 through engagement of temporaries.

Communication & Information Clearing House

A new programme brochure 'Stopping the Ballast Water Stowaways' was produced and distributed globally, drawing a positive response and significant requests for more copies.

A second round of the posters produced in 2000 was printed and distributed globally.

A review of the effectiveness and client-satisfaction with the awareness materials produced to date was conducted through a stakeholder questionnaire and significant positive feedback was received. A new poster design was commenced based on this feedback.

Brazil and Ukraine were provided with poster designs in Portuguese and Ukrainian.

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

Procurement, cataloguing and archiving of publications for the IMO Library Ballast Water Collection continued, and the collection was expanded by over 400%. This was achieved using PCU staff resources and there is a need to internalise this function within the IMO library itself.

A further four 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>). Requests to be added to the mailing list increased significantly and the newsletter was expanded from 8 to 12 pages to accommodate adequate coverage of global events. Significant positive feedback to the newsletter was received from a variety of stakeholders.

A series of technical articles on ballast water matters prepared by the PCU were published in a number of specialist international publications (e.g. PEMSEA Tropical Coasts, Shipping World & Shipbuilder, Loyd's List).

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.

Maintenance and updating of the Ballast Water Treatment R&D Directory, both in hard copy and the web-based database, lapsed due to the departure of the Principal Administrative Assistant and delays in recruiting a permanent replacement.

The GloBallast website continued to be maintained and developed on an ad-hoc basis as staff-time allowed, but requires a major update, upgrade and expansion to meet the needs of users, as identified by the CHM review (see below).

A strategic review of the PCU's information Clearing House Mechanism (CHM) was carried out through a consultancy and the review report will be received and considered in late January 2002. This is seen as being a major, core function of the PCU by most stakeholders. Recommendations with significant resource implications are expected.

PCU Travel

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

- Legal Workshop, Malmo, Sweden.
- APEC Workshop, Hobart, Australia.
- International Ballast Water Conference, Singapore.
- Support mission to Brazil.
- ROCRAM meeting, Ecuador.
- Baltic Workshop, Tallinn, Estonia.
- Black Sea Conference, Odessa, Ukraine.
- SIGTTO meeting, Bracknell, UK.
- WMU lectures, Malmo, Sweden.
- GISP Workshop, Copenhagen, Denmark.
- Mnemiopsis Workshop, Baku, Azerbaijan.
- Port Survey Planning and Training, Saldanha, South Africa.
- ICES/IOC/IMO Meeting, Barcelona, Spain.
- Planning Mission, I.R. Iran.
- ROPME Meeting, Bahrain.

During the year, the PCU began to implement a policy of requesting CFPs or CFP-As to represent the PCU at international meetings where this is more beneficial. This started with the CFP-A for Brazil representing the programme at the 2nd *International Conference on Marine Bioinvasions* in New Orleans in April 2001 and nomination of the CFP-A for South Africa to present a paper on behalf of the PCU at the 11th *International Conference on Aquatic Alien Species* being held in Alexandria, USA in February 2002.

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 3rd GPTF meeting were completed by the CFP and CFP-A of the host country India, supported by the PCU.

Risk Assessment & Port Baseline Surveys

The PCU progressed the Risk Assessment consultancy tender to the point of contract commencement but was delayed by IMO administration. This has caused a significant ‘domino-effect’ delay to the whole programme. IMO approval has now been received, more details are contained in the Briefing Paper for agenda item 4, and the lead risk assessment consultant (Dr Rob Hilliard) will brief all parties during the meeting.

By the end of November 2001 training and support had been provided by the PCU to all six Pilot Countries in Port Baseline Surveys and all countries had completed the field sampling component of their surveys. This represents a major practical achievement for the programme and a material implementation of an important element of the IMO ballast water Guidelines. Each country now needs to complete sample identification, analysis and reporting. Further details are provided in the Briefing Paper for agenda item 7.

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 8.

In March 2001 the PCU convened the *1st International Ballast Water Treatment R&D Symposium* followed immediately by the *1st International Ballast Water Treatment Standards Workshop*, at IMO headquarters in London. Both events proved highly successful and have been used by the MEPC Ballast Water Working Group as a catalyst and basis for progressing the development of standards, which remains one of the major obstacles to finalising the new Convention.

After nearly two years of the programme, it is considered that the six Pilot Countries need to make greater efforts to implement basic ballast water management measures, as clearly described in the IMO Guidelines (A.869(20)).

Compliance, Monitoring and Enforcement

A CME Scoping Study was conducted in the latter half of 2001. Further details are provided in the Briefing Paper for agenda item 9.

Legislation and Regulations

The legislative review project is substantially complete. Further details are provided in the Briefing Paper for agenda item 10.

Regional Cooperation and Replication

The PCU and Ukraine GloBallast team held the 1st Regional Conference for the Black Sea. A Regional Action Plan (RAP) was approved by all Black Sea countries and funding proposals are being developed for the RAP.

The PCU with support from the Estonian Government held a Regional Workshop for the Baltic Sea and a Regional Action Plan and funding proposals are under development.

The PCU is now working with the I.R Iran and the ROPME Secretariat to hold the next Regional Conference in the Gulf (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). After nearly two years of the programme, the Pilot Counties now need to focus more on progressing regional replication.

The PCU has formed 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. Approximately US\$630,000 worth of additional funding and support-in-kind has already been secured by the PCU, 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. The following additional prospects have been identified to date:

- Potentially up to Euro 5 million for the Baltic Sea/ Black Sea/Eastern Europe from the EU.
- Potentially significant funding from the US State Department for the Eastern Baltic.
- Potentially significant funding from the GEF Baltic Sea Regional Project for the Baltic.
- Potentially US\$500,000 from APEC for Asia/Pacific.
- An Associate Professional Officer (APO) to supplement PCU staff resources from Germany or Norway.

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

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

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

Revision of PIP and 12 month Extension of the Programme

The analysis of the first two years of the GloBallast Programme has led to a number of conclusions, two of which have a primary impact on the implementation process:

The exchange of the initial assumptions; and the need for continuous coordination and a standardized approach to the activities in the six participating countries.

In 1997/1998, when the initial project document was elaborated, the international community was planning to adopt a regulatory regime for ballast water transfers by 2001 or at the latest 2002. Under this assumption the activities of the project were structured to achieve two main development objectives:

To increase adherence to the current IMO voluntary guidelines on ballast water management; and to assist the participating countries to prepare for the implementation of the anticipated IMO mandatory regime when it comes into force.

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. A Diplomatic Conference is provisionally scheduled for October 2003.

Whereas the activities related to the first objective have been successfully completed, or in some cases are currently under development in advanced stages, the situation is different for the activities relating to the second objective. In the absence of the Convention, it was premature to tackle activities such as Compliance Monitoring and Enforcement and National Ballast Water Management Plans. Legislative Review and Training and other similar activities had to be limited to the requirements of the existing voluntary guidelines. The time gap created between the scheduled end of GloBallast in March 2003 and the possible adoption of the new Convention has also raised concern and risks losing the unprecedented momentum of concerted international action precipitated by the project.

The analysis of the first two years has also revealed the need for continuous coordination and monitoring. The length of time required for administrative procedures to initiate the various activities and the complexity of the logistics required for their implementation combined with limited human resources have prevented PCU from progressing all activities in parallel as initially planned. The need to ensure standardized approaches in countries situated all around the globe with such different sizes and diversified geo-climatic and politico-administrative conditions imposed flexible time schedules and determined several adjustments in the initial indicative work plan. Some countries made representations that more time is needed in order to implement all programme activities.

During the reporting period a number of new activities emerged from the implementation process or have been recommended by various stakeholders. Those include the second international ballast water treatment R&D Symposium, an international workshop on ballast water sampling technologies, advanced clearing house mechanisms, an enhanced television documentary and a conference to establish medium term strategic directions – to name but a few.

The figures available to date and the estimations made for the end of year 2001 have shown that the planned disbursements were under US\$ 3 million and the actual disbursements approximately US\$1.6 million which gives a timing of disbursement of a bit more than 53%, meaning that the project is under spent.

After thorough consideration of all the above aspects and based on the indications received from IMO and UNDP-GEF the PCU has reviewed the Project Implementation Plan and budget in accordance with the provisions of sub-section 6.6.2 paragraph 1 of the UNDP Programme Manual, and elaborated the Revision D of the initial project document which is hereby attached (*at Appendix III*) for your consideration and approval.

The present substantive revision covers the period until 29 February 2004, reflects the adjustments of the “Revised Indicative Three Year Workplan (July 2000)” and incorporates the newly recommended activities all in the initially approved overall budget.

GloBallast Advanced

The shift in the likely timing of the new ballast water Convention Diplomatic Conference from 2001 to late 2003 combined with an increasing demand from developing regions for programmatic support and technical assistance, have raised the need to extend the GloBallast Programme for another five years beyond the nominal end of the current phase (originally March 2003, now March 2004).

This subsequent phase, covering the period April 2004 to April 2009, has been called *GloBallast Advanced*. The PCU has prepared a Discussion Paper as a starting point for stakeholder consultation. The initial draft has been reviewed by UNDP/GEF and an updated draft will be presented in detail under agenda item 14.

Agenda Item 3: Country Status Reports

For the Period 1 January to 31 December 2001

Brazil

Introduction

The year 2000, first year of the project, was expended structuring the Programme within the country, culminating with the elaboration of the National Workplan at the end of November. Thus, the development of the activities only start in January 2001 and just a small part of the available budget was already used (15.4%). Moreover, several components of the Programme do not initiate yet. Therefore, it is proposed here an extension of 12 months on the timeline originally established to the project, using the remaining funds without any increasing. This extension will allow a complete implementation of the project and also will cover the period between March 2003 and the accomplishment of the Diplomatic Conference expected to be hold during the second semester of that year.

This report aims to present a summary of the expenditures done during the year 2001 in the ambit of the GEF/UNDP/IMO GloBallast Programme, as well as a timetable of disbursement for the period January 2002 to March 2004.

1 Deposits on the imprest account

Considering some national regulations, a bank account could not be opened in the name of IMO unless it was registered at a Brazilian National Register of Legal Entities. This option was set aside and the Brazilian Navy's Admiral Paulo Moreira Institute of Marine Studies (IEAPM), on a co-operative basis with the Ministry of Environment, opened an imprest account to receive the funds repassed by the Finance and Budget Section of IMO.

The Table 1 shows the amount credited on the project's imprest account, totalling USD\$ 88,931.20 (R\$220,751.30 after deduction of bank taxes). This value summed with the salary paid for the Country Focal Point Assistant along 13 months (USD\$ 21,794.44) is equivalent to USD\$ 110,725.64 that correspond to 15.4% from the total of USD\$ 718,333 available for the national workplan implementation.

Table 1 – List of deposits and tax incurred

Date	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	0.00	2.6090	50.00	127,531.05
Total	88,931.20	12.83	-	274.03	220,751.30

2 Monthly Reports

The first deposit of USD\$ 8,000 in January 2001 was a credit on the IEAPM account to reimburse the expenses done with the workshop for preparation of the National Workplan held on November 2000. These expenses were object of a specific financial report. The first actual deposit on the imprest account occur at the end of May 2001 and since that monthly reports have been prepared by IEAPM's staff with the assistance from the CFP-A.

A particularity of these reports that should be considered is the great variation underwent by the exchange rate between US Dollars and Brazilian Reais during the last 12 months. The Figure 1 illustrate this fluctuation and the gaps between values that convert deposits (done in US Dollars) on credits in Reais, and values employed to calculate the debits in US Dollars in the monthly reports.

These numerical variation, in which to same amount in Reais is assigned different quantities in Dollars on bookkeeping monthly records, can lead to difficulty in calculate balance in the budget lines.

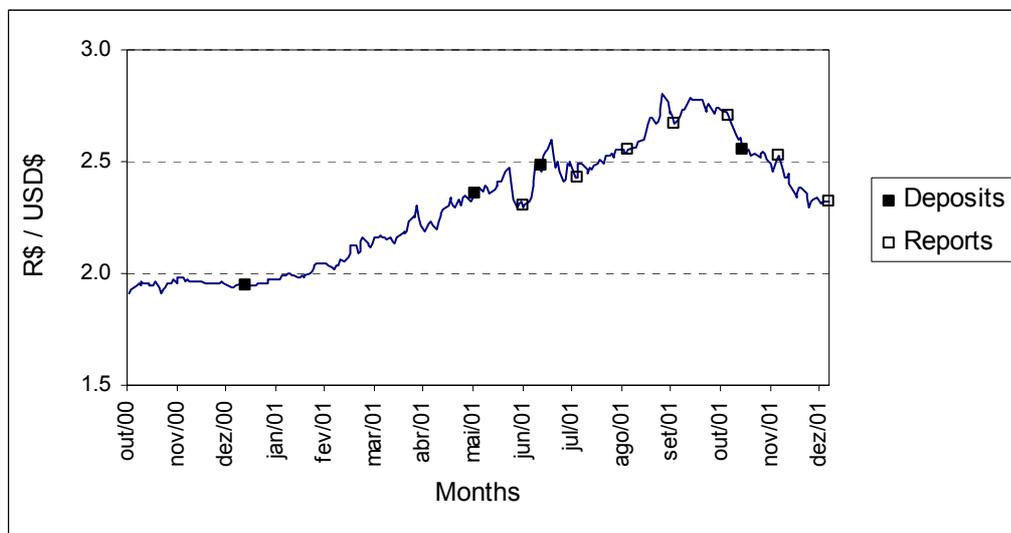


Figure 1 – Exchange rate variation (Nov/2000 – Dec/2001)

The criterion adopted to select the exchange rate between currencies for the monthly financial reports was established as the value of this rate at the last working day of each month (Table 2).

Table 2 – Exchange rates used on monthly financial reports

Month	Rate (R\$/USD\$)
June / 2001	2.3041
July / 2001	2.4305
August / 2001	2.5509
September / 2001	2.6705
October / 2001	2.7063
November / 2001	2.5279
December / 2001	2.3196

Source: Central Bank of Brasil

The Table 3 presents a summary of monthly expenditures, by budget line, along the year 2001. A quick look at the figures reveals that the following activities do not have disbursement until now:

- 1.B.3: Support CPTF Meetings
 4.2: In-Country Training
 5.2: Ballast Water Sampling Equipment
 5.3: CME Personnel and Training
 5.4: Implement CME Systems
 6.2: RPTF Meetings and Study Tours
 7.1: National Resourcing and Financing

Table 3 – Summary of monthly expenses by budget line (2001)

Activity	Jan/01	Feb/01	Mar/01	Apr/01	May/01	Jun/01	
1.B.2 ⁽¹⁾	3,904.36	1,942.22	1,866.05	1,812.73	1,691.88	1,655.11	
	-	-	-	-	-	141.92	
1.B.3	-	-	-	-	-	-	
1.B.4	8,000.00	-	-	-	-	-	
2.4	-	-	-	-	-	-	
2.5	-	-	-	-	-	-	
3.1	-	-	-	-	-	-	
3.2	-	-	-	-	-	-	
4.2	-	-	-	-	-	-	
4.3	-	-	-	-	-	-	
5.2	-	-	-	-	-	-	
5.3	-	-	-	-	-	-	
5.4	-	-	-	-	-	-	
6.1	-	-	-	-	-	-	
6.2	-	-	-	-	-	-	
7.1	-	-	-	-	-	-	
Subtotal ⁽²⁾	8,000.00	0.00	0.00	0.00	0.00	141.92	
Total	11,904.36	1,942.22	1,866.05	1,812.73	1,691.88	1,797.03	
Activity	Jul/01	Ago/01	Sep/01	Oct/01	Nov/01	Dec/01	Total
1.B.2 ⁽¹⁾	1,619.89	1,522.70	1,522.70	1,364.42	1,399.54	1,492.84	21,794.44
	38.75	492.95	453.83	3,418.29	1,962.43	81.50	4,194.25
1.B.3	-	-	-	-	-	-	0.00
1.B.4	-	-	-	-	-	-	8,000.00
2.4	1,251.92	1,815.46	-	-	-	-	3,067.38
2.5	-	-	-	3,695	9,921.36	172.87	10,131.18
3.1	-	-	-	812.92	-	-	812.92
3.2	3,085.80	1,082.94	98.30	-	37,665.75	1,149.14	43,081.93
4.2	-	-	-	-	-	-	0.00
4.3	332.52	4,623.76	-	2,405.24	7,562.98	-	14,924.50
5.2	-	-	-	-	-	-	0.00
5.3	-	-	-	-	-	-	0.00
5.4	-	-	-	-	-	-	0.00
6.1	-	-	-	3,272.85	-	-	3,272.85
6.2	-	-	-	-	-	-	0.00
7.1	-	-	-	-	-	-	0.00
Subtotal ⁽²⁾	4,708.99	8,015.11	552.13	7,550.83	57,112.52	1,403.51	87,485.01
Total	6,328.88	9,537.81	2,074.83	8,915.25	58,512.06	2,896.35	109,279.45

Note: ⁽¹⁾ The 1st line shows the CFP-A salary that is paid directly by IMO and the 2nd line shows the expenses to support CFP-A office and activities withdraw from the imprest account.

⁽²⁾ Subtotal excluding CFP-A Salary.

3 Budget Revision

Based on the analysis of the previous table, a revision on the National Workplan budget is proposed. The Table 4 condenses these reallocations which are justified on the next items.

Table 4 – Reviewed budget

Activities	Budget (USD\$)			Proposed allocation	Difference
	N W P	Spend	Balance		
1.B.2: Support CPTF and CFP Assistant	110,000	25,988.69	84,011.31	84,011.31	0.00
1.B.3: Support CPTF Meetings	24,000	0.00	24,000.00	12,000.00	+12,000.00
1.B.4: Develop/Implement National Workplans	110,000	8,000.00	102,000.00	102,000.00	0.00
2.4: Country Communication Workshops	20,000	3,067.38	16,932.62	0.00	+16,932.62
2.5: Implement Country Communication Workplans	90,000	10,131.18	79,868.82	96,801.44	-16,932.62
3.1: Ballast Water Risk Assessment	4,000	812.92	3,187.08	3,187.08	0.00
3.2: Port Baseline Surveys	67,000	43,081.93	23,918.07	23,918.07	0.00
4.2: Education and Training Packages	30,000	0.00	30,000.00	30,000.00	0.00
4.3: Legislation and Regulations	25,000	14,924.50	10,075.50	10,500.00	-424.50
5.2: Ballast Water Sampling Equipment	10,000	0.00	10,000.00	10,000.00	0.00
5.3: CME Personnel and Training	80,000	0.00	80,000.00	80,000.00	0.00
5.4: Implement CME Systems	40,000	0.00	40,000.00	40,000.00	0.00
6.1: Form Regional Programme Task Forces	10,000	3,272.85	6,727.15	6,727.15	0.00
6.2: RPTF Meetings and Study Tours	90,000	0.00	90,000.00	90,000.00	0.00
7.1: National Resourcing and Financing	8,333	0.00	8,333.00	19,908.50	-11,575.50
Total	718,333	109,279.45	609,053.55	609,053.55	0.00

3.1. Support CPTF Meetings (Activity (1.B.3))

Under the National Workplan USD\$ 24,000 is available to support the holding of CPTF meetings. As long as the remaining time for the project is 27 months, it is considered that a total of 4 meetings during the programme lifetime will be sufficient, giving a total of USD\$ 12,000, based on an estimate of USD\$ 3,000 per meeting

3.2. Country Communication Workshop (Activity 2.4)

The meeting was held in July 2001 at the auditorium of the Directorate of Port and Coasts. From this workshop was adopted the document “National Communication Workplan” as reference for the activities related to awareness raising. The costs involved in the event realisation (Table 5) were much smaller than the USD\$ 20,000 made available. In such a way the remaining USD\$ 16,932.62 can be transferred to the activity 2.5 “Implement Country Communication Workplan”.

Table 5 – Workshop costs

Description	USD\$
Support Material	63.09
Coffee-break meals (juice, biscuit, cookies, tidbits, ...)	37.24
Lunch (16 persons)	70.36
DSA	
Ministry of Environment - CFP Representative	277.10
Ministry of Environment - ASSCOM Representative	166.26
Ministry of Transport - ASSCOM Representative	166.26
Ministry of Science and Technology - ASSCOM Representative	166.26
National Sanitary Surveillance Agency - ASSCOM Representative	166.26
IEAPM Representative	166.26
Airfares (5 Brasília – Rio de Janeiro – Brasília)	1,788.29
Total	3,067.38

Note: ASSCOM: Communication Accessory.

3.3. Port Baseline Surveys (Activity 3.2)

The compilation of existing information and previous studies on the distribution of biota in the port (including presence of introduced species, composition, abundance and space-time distribution of the biota of the study area) is concluded under final edition.

The port biota survey was undertaken with success during the months of November and December, following the guidance provided by the CRIMP Protocols, with the advice of an international consultant. The expenditures with the field stage are presented in Table 6.

Table 6 – Disbursement with port baseline survey

Expenditures	USDS	
	November	December
Sampling		
Plankton	1,837.49	-
Benthos (natural substrate)	1,578.78	-
Benthos (artificial substrate)	1,979.35	-
Soft Substrate	1,977.93	-
Fish	5,940.42	-
Restitution	-	-1,412.45
Subtotal	11,901.53	
Diving		
Main dive team	5,504.17	-
Photo diver	640.85	388.00
Diver natural substrate	356.03	-
Subtotal	6,889.05	
Vessels		
Diadorim (IEAPM)	9,256.70	-
Santa Ursula University	5,047.67	-
Subtotal	14,304.36	
DSA	2,850.10	2,173.59
Subtotal	5,023.69	
Transportation	696.23	-
Subtotal	696.23	
Total	38,814.85	

Note: exchange rates: Nov/2001 USD\$1 = R\$2.5279; Dec/2001 USD\$1 = R\$2.3196

The total expenditures done until now under this budget line come at USD\$ 43,081.93. Under the National Workplan USD\$ 67,000 are available, remaining for the next phase USD\$ 23,918.07. The Table 7 describes the activities that will be developed nationally by Brazilian marine biologists and oceanographers. International taxonomists will be contacted as needed to identify exotic species. It is impossible to foresee the costs of these experts that are not committed to the project at present, possibly leading to necessity of future supplementation for this activity.

Table 7 – Expected payments

Activity	Detail	R\$	USDS
Compile existing information	2 nd /2 parcel (8 × R\$ 1,050)	8,400	3,652.17
Plankton analysis	Fine sorting and taxonomy	3,000	1,304.35
Benthos (natural substrate)		3,000	1,304.35
Benthos (artificial substrate)		3,000	1,304.35
Fish analysis		3,000	1,304.35
Sediment analysis	Granulometry/organic matter (R\$100 × 21 sites)	2,100	913.04
Cysts analysis	R\$ 210/sample × 102 samples	21,420	9,313.04
HPLC analysis	Dinoflagellate toxins	6,000	2,608.70
Material for the collections	bottles, fixatives, reagents, herbarium material	4,600	2,000.00
Contingency		8,892	3,865.90
Total		55,012	23,918.07

Note: estimated exchange rate USD\$1 = R\$2.30

3.4. Legislation and Regulation (Activity 4.3)

This activity is nearly ended. The Brazilian delegates attended in November 2001 the workshop on legal aspects of ballast water management and control. These expenses, jointly with the first parcel of the Local Legislative Consultant (LLC) contract, totalize USD\$ 14,924.50 (Table 8). Considering the available funds for this activity of USD\$ 25,000, an amount of USD\$ 10,075.50 is remaining.

The LLC submitted her final report that is now under approval process. The second and the third parcels of the contract, corresponding to R\$ 24,150, will be paid up in the first quarter of 2002. The equivalent sum in US Dollars will depend on the exchange rate at the date, and can be estimated in USD\$ 10,500. Therefore, it might be necessary a supplementation (Table 9).

Table 8 – Disbursement with legislation review

Description	USD\$
Meeting in Rio de Janeiro	
DSA (CFP Representative)	166.26
DSA (LLC)	166.26
Airfares	566.37
BW Legal Aspects Workshop (Malmö, Sweden)	
DSA (LLC)	531.67
LLC airfare	2,405.24
DSA (CFP Representative)	1,820.82
CFP Representative airfare	5,210.49
Consultant payment	
1 st /3 parcel	4,057.39
Total	14,924.50

Table 9 – Expected payments

Consultant payment	R\$	USD\$ ⁽¹⁾	USD\$ ⁽²⁾
2 nd /3 parcel	10,350	4,500	4,312.50
3 rd /3 parcel	13,800	6,000	5,750.00
Total	24,150	10,500	10,062.50

Note: estimated exchange rate (1) USD\$1 = R\$2.30 (2) USD\$1 = R\$2.40

3.5. Regional Co-operation and Replication (Activities 6.1 and 6.2)

A first step was given in initiate regional cooperation in South America with the participation of the GloBallast CTA and the Brazilian CFP-A at the ROCRAM meeting on October 2002. The Table 10 shows the costs incurred of partaking in this event. Considering the available funds of USD\$ 10,000 for the activity 6.1, the remaining balance is USD\$ 6,727.15.

Table 10 - Disbursement with ROCRAM meeting

Description	R\$	USD\$
DSA (CFP-A)	2,374.56	877.42
Airfare (Rio de Janeiro - Guayaquil - Rio de Janeiro)	6,482.75	2,395.43
Total	8,857.31	3,272.85

The following actions will be developed under activity 6.2 “RPTF Meetings and Study Tours”:

- a) Contract a qualified consultant, experienced with environmental management, that will assist the Country Focal Point of Brazil on several tasks concerning the implementation of this component, including the conduction of the regional meeting and preparation of the Regional Action Plan document;

- b) The consultant and the CFP-A will travel to Brasília to discuss at the Ministry of Foreign Affairs aspects of regional cooperation and the arrangements for meeting;
- c) Undertake missions across South America. Considering the number of countries involved, ideally the visits will be scheduled in two goes and will consist of two days in each country and one day travel to the next country.
- d) Hold a Conference on ballast water management assembling maritime, port and environmental officials from the countries in Brasília. The Conference will be developed along one day and a half.

The Regional Programme Task Force will count with 6 countries, according to following criteria:

- Uruguay and Argentina – activities being developed jointly in The Global Programme of Action for the Protection of Marine Environment from Land-Based Activities (Southwest Atlantic);
- French Guyana – boundary aspects and adjacent mangrove ecosystem (Mangrove Cooperation Project / States of Pará and Amapá);
- Chile – articulation with other regional programmes of recognised importance; and
- Peru and Colombia - boundary aspects.

The Table 11 and Table 12 are used on calculations to estimate the expenses involved with the activity of regional cooperation, summarised on Table 13.

Table 11 – Economic class round trip airfare to Rio de Janeiro (approximate value)

From	USDS	From	USDS
Bogota (Colombia)	1,829	Lima (Peru)	1,537
Buenos Aires (Argentina)	851	Montevideo (Uruguay)	797
Cayenne (French Guyana)	2,617	Santiago (Chile)	1,205

Table 12 – DSA for cities included on regional cooperation

City	USDS	City	USDS
Bogota (Colombia)	108	Lima (Peru)	213
Buenos Aires (Argentina)	243	Montevideo (Uruguay)	147
Cayenne (French Guyana)	143	Santiago (Chile)	223

Table 13 - Expected payments

Item	Description	USDS
a) Consultant	60 days	8,000
b) Contact with Ministry of Foreign Affairs		
Airfares	2 persons x 2 travels	1,600
DSA	2 days x (2 persons x 2 travels)	500
b) Missions (1 person)		
Airfares	2 travels	9,000
DSA	6 countries x 3 days	3,230
c) RPTF meeting in Brasília (20 persons)		
Hall (equiped)	2 days	180
Coffee-break	3 (US\$3.5/person)	210
International Airfares	12 tickets (2 per country)	18,000
Domestic Airfares	12 tickets (Rio – Brasília – Rio)	4,800
Delegates' DSA	12 persons (3 days)	4,284
	Subtotal	49,804
d) Contingency		40,196
	Total	90,000

Note: a) DSA in Brasília: USD\$ 119

b) Airfare Rio de Janeiro – Brasília – Rio de Janeiro: USD\$ 400

3.6. National Resourcing and Financing (Activities 7.1 and 7.2)

A vital objective of the programme is identify and appraise, during its lifetime, long term resourcing and financing arrangements to implement, in a national ambit, ballast water management measures. The development of programme's activities itself is given the basis to this evaluation, mainly the review of "Legislation and Regulations".

The available funds for this activity is US\$ 8,333 to each country. Part of the remaining balance from the activity 1.B.3 "Support CPTF Meetings" (USD\$ 12,000) can be applied to address in-country sustainable resourcing and financing mechanisms. This activity would require consultation with several government segments related to port activities and with the shipping industry.

Expenses with the participation at the Donors Conference will done under be this budget.

Conclusion

In view of the remaining funds, the programme's extension is feasible. The challenge set in this moment is distribute the several activities, during the next 27 months, in a coherent way with the initial objectives of the GEF/UNDP/IMO Programme and the current situation of the future Ballast Water Convention development.

Besides the activity 4.3 "Legislation and Regulations" that is almost concluded, other activities initiated during the year 2001 are expected to be complete along the year 2002 as:

- 3.1 "BW Risk Assessment" – contract approved of international consultants to carry out the ballast water risk assessment.
- 3.2 "Port Baseline Survey" – species analysis will begin in January and the final report is expected to ready by December.
- 4.2 "Education and Training Packages" – package now under development by the TSC programmes, planned to be delivered in the middle of the second semester.
- 6.1/6.2 "Regional Replication" – regional conference to be convened late 2002.

On other hand, implementation of awareness raising activities contained in the communication workplan should be developed in a continuous way until the end of the programme.

The situation related with the component 5 "Compliance, Monitoring and Enforcement" is quite different from the activities outlined above. Currently the countries only have voluntary guidelines. Even after the expected Diplomatic Conference, planned to the second semester of 2003, there will be a period before the Convention enter into force. Thus, the definition of what management measures implement still can retard.

The present revision of the National Workplan budget will certainly need a new examination in the future. Continuing the implementation the workplan, probably it will be realised that some components are overestimated and others underestimated. An example of the first case could be the BW sampling equipment with USD\$ 10,000 (activity 5.2). Also, some budget lines are apparently unbalanced as "Education and Training Packages" (activity 4.2) with USD\$ 30,000 and "In-country CME Personnel and Training" with USD\$ 80,000 (activity 5.3).

Finally, the guidance from the Programme Coordination Unit, with advice from the Global Project Task Force, will be essential in the use of more realistic estimates to comply with all activities and timelines.

4 Timeline

Table 14 - Brazilian National Workplan Schedule Summary

Workplan Component	Tasks to be undertaken	2002				2003				2004	Total
		I	II	III	IV	I	II	III	IV	I	
National	• Support CPTF and CFP Assistant (1.B.2)	9,335	9,335	9,335	9,335	9,335	9,335	9,335	9,335	9,331	84,011
Workplan	• Support CPTF Meetings (1.B.3)	-	3,000	-	3,000	-	3,000	-	3,000	-	12,000
	• Develop / Implement National Workplans (1.B.4)	-	25,500	-	25,500	-	25,500	-	25,500	-	102,000
Comm. Educ. and Awar. Raising	• Country Communication Workshops (2.4)	-	-	-	-	-	-	-	-	-	0
	• Implement Country Communication Workplans (2.5)	10,756	10,756	10,756	10,756	10,756	10,756	10,756	10,756	10,753	96,801
Risk	• Ballast water risk assessment (3.1)	2,137	350	350	350	-	-	-	-	-	3,187
Assessment	• Develop port baseline survey (3.2)	6,000	6,000	6,000	5,918	-	-	-	-	-	23,918
BW Management Measures	• Training course in application of IMO voluntary guidelines (4.2)	-	-	-	30,000	-	-	-	-	-	30,000
	• Contract consultants to review existing legislation (4.3)	10,500	-	-	-	-	-	-	-	-	10,500
Compliance Enforcement & Monitoring	• Ballast Water Sampling Equipment (5.2)	-	-	10,000	-	-	-	-	-	-	10,000
	• Training of Personnel (5.3)	-	-	-	40,000	-	40,000	-	-	-	80,000
	• Implement CME Systems (5.4)	-	-	-	-	8,000	8,000	8,000	8,000	8,000	40,000
Regional Activities	• Form cooperative relationships with neighbouring countries (6.1)	3,727	3,000	-	-	-	-	-	-	-	6,727
	• Assist the establishment of RPTF and held a workshop (6.2)	8,000	7,000	7,000	30,000	7,600	7,600	7,600	7,600	7,600	90,000
Res. & Financing	• Develop/implement in-country resourcing and financing (7.1)	-	-	-	-	2,500	2,500	2,500	2,500	9,908	19,908
Total		50,455	64,941	43,441	154,859	38,191	106,691	38,191	66,691	45,592	609,052

China

The GloBallast Programme has been implemented successfully under the National Workplan. Since the 2nd GPTF Meeting, which was held in December 2000, the following activities have been carried out.

1 Awareness Raising Campaign – Pave the Way forward

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 have been carried out.

Translating and printing the Chinese /English version of IMO R.868(20) and disseminating them to the marine industry nationwide

Under the Country's Communication Workplan, a Chinese/English version of IMO Resolution 868(20) has been prepared and 6400 copies of the Resolution have been printed. By now, 3600 copies have been disseminated free of charge to the shipping industry and relevant organizations nationwide. Such dissemination will continue under the plan. Some libraries of universities and research organizations have include the Chinese/English A.868(20) in their lists. The book is also available on board all COSCO ships and will be available on board ships of China Shipping, the two biggest shipping companies of China.

Nationwide awareness raising seminars

Under the National Workplan, 8 seminars for education and awareness raising will be carried out nationwide. Among the 8 seminars, 4 will be carried out in the North around the Bohai Sea where the demonstration site of the programme is situated. The other 4 seminars will be held in the middle and south of the country. Each seminar will be participated by about 60 people from those relevant organizations and companies.

By now 3 of the seminars have been successfully held in Dalian and Tianjin respectively. The others will be held soon. To support this activity the Government and relevant organizations provide the accommodation and inter-city transport for the participants.

Presentation at relevant meetings and dissemination of news letters and posters

The CFP-A attended 3 national meetings on the protection of marine environment and delivered presentation of introduction of ballast water issue and the GloBallast Programme. The 1st 4-page ballast water news letter has been prepared and disseminated as the middle pages of the journal "Transport and Environment Protection".

Opening of the web site

A web site under the name of "globallast-china.org" has been prepared and opened by the end of December 2001.

2 Legislative review

The legislative review on the implementation of IMO Guidelines has been completed. The contracted Local Legal Consultant (LLC) submitted the report in time to the International Lead Consultant for consideration on development of suggested model regulations on ballast water management. The report was considered at the Legislative Workshop, which was held in Malmo, Sweden 15-17 November 2001.

The CFP and CFP-A has been participating in the recent amendments to the relevant instruments relating to ballast water control. With a view to implementing IMO voluntary Guidelines, the Chinese Government is planning to promulgate Regulations at Ministerial level late next year to implement the relevant requirements of Resolution A868(20). This will be considered as a big success of the GloBallast Programme in the country.

3 Case study

The case study has been completed by Mr. John McLachlan-Karr, the contracted IMO consultant, who visited Beijing and Dalian late August and early September 2001. During his stay, the Liaoning MSA and the CFP-A provided technical support for information collecting. Two small meetings were held in Beijing and Dalian respectively. The Consultant also visited the scientists and relevant organizations in Dalian.

The CFP-A and Ms Xu Xiaoman from Liaoning MSA provided information clarification which is considered necessary for him to finalize the mission report after the consultant left China.

4 Port Baseline Biota Survey in Dalian

The training and field workport for baseline biota survey has been completed. The laboratory work is under way. Dr. Marnie Campbell visited China in August and September. She provided technical training to the survey team and guidance for the field work. Sampling at 52 selected points have been completed. The samples of organisms are sorted and protected for laboratory study.

5 Other activities

Development of Ship-specific Ballast Water Management Plan

The China MSA is helping the shipping industry in developing ballast water management plan for the ships. It is expected that all ships of international voyages will be equipped with ballast water management plan as required by Resolution A868(20).

Regional Cooperation

Efforts are making to contact the neighboring countries of North Korea, South Korea, Philippines and Vietnam. A meeting participated by the representatives from the above mentioned countries is planned to be held in 2002 for exchange of information and sharing experience as ballast water control is concerned.

6 Activities to be carried out

Under the National Workplan, the Programme will carry out the following activities:

- risk assessment of ships' ballast water;
- training of port and shipping personnel;
- monitoring of compliance and enforcement of ballast water management;
- regional cooperation; and
- three Country-specific activities.

7 Country's in-kind support

By the end of 2001, the Chinese Government and relevant organizations have provided the following in-kind support for implementing the GloBallast Programme in China.

Activity	Support by 31 Dec. 2001 (RMB)
CFP Office and facilities including part of the operation costs	RMB100,000
CPTF related costs, including the 1 st CPTF Meeting, and relevant support from Liaoning MSA at the demonstration site.	RMB80,000
Support to seminars and training, including accommodation and inter-city travel of the participants.	RMB65,000
Collection of information for case study, and legislative review	RMB40,000
Support for Port Baseline Survey, including salaries of implementation team, office and labs.	RMB100,000
Risk Assessment activities, including collection of ballast water reporting forms and data management.	RMB15,000
Support from COSCO for bw treatment R&D	RMB150,000
Sub-total	RMB505,000 (about US\$60,000)

More in-kind support will be provided for the activities to be carried out in 2002.

8 Suggestions

Extension of the GloBallast Programme

Considering the progress made in implementation and delay of some activities, the programme may be extended by six months based on the available budget. The 21 months from now to October 2003 would be sufficient to complete those activities, which are on-going.

Country-specific Activities

The implementation plans for the three country-specific activities under China's National Workplan have been submitted to PCU for months. The organizations responsible for implementing the activities are ready to start. The financial support from the shipping industry is available. PCU is requested to approve, as appropriate, the implementation plans for the above-mentioned activities.

The National Workplan will be amended according to the decisions made at the GPTF 3.

Annexed is a table for the country's status in implementing the GloBallast Programme.

Annex**Table for China's Country Status Report for Implementation of GloBallast Programme**

Activity	Status by 31 Dec. 2001	Estimated completion time	Budget for 2002	Country's in-kind support by 31 Dec 2001
Routine operation of CFP office	Normally Maintained	March 2003 (October 2003)	US\$40,000	RMB100,000
CPTF Meetings and related activities	3 meetings held	March 2003 (Oct. 2003)	US\$7,500	RMB80,000
Communication and awareness-raising	40% completed	January 2003 (June 2003)	US\$35,000	RMB65,000
Case Study	Completed			RMB30,000
Risk Assessment activities, including collection of ballast water reporting forms and data management.	Information collecting continued Risk assessment on-going	TBD	US\$5,000	RMB15,000
Port Baseline Survey activities	Field work completed Lab work started	October 2002	Already available	RMB100,000
Education/Training activities	Training organization is prepared. Training material waited for.	Feb. 2003 (August 2003)	US\$20,000	
Legislative Review	Completed			RMB10,000
Progress with National Ballast Water Management Plan	Shipping companies begin to develop management plan. Proposal for amending present Regulations made.	January 2003 (June 2003)	US\$10,000	
Compliance Monitoring and Enforcement activities, including ballast water sampling.	To be started in 2002	January 2003 (September 2003)	US\$40,000	
Regional Cooperation and Replication activities Regional Cooperation and Replication activities	To be started in 2002	January 2003 (June 2003)	US\$50,000	
Progress with national contributions to the programme/self financing activities.	National contribution continues.			
Country-specific activities under National Workplan, not covered by Global PIP. a) Red tide information to captains. b) Research on the impact of Chemical treatment of ballast water. Development of new ballast water treatment device, which will start after the symposium and workshop.	Ready to start, waiting for PCU's approval.	Feb. 2003 (June 2003)	US\$80,000	RMB150,000
Other/Miscellaneous				
		Sub-total	US\$287,500	RMB505,000 (About US\$60,000)

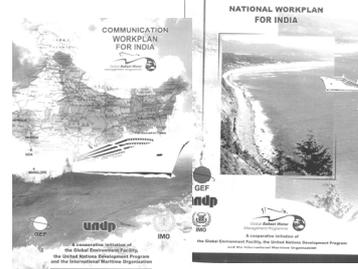
India

Progress of Global Ballast Water Management Programme in India

Presented by
Mr. S. Chakrabarty
CFP, India

Period : December 2000 to December 2001

National Workplan and Communication Workplan finalised and approved by CTA on 3rd April 2001



Indigenous awareness raising posters developed on May 2001 and distributed



1st Indigenous quarterly brochures developed in March 2001 and distributed



2nd Indigenous quarterly brochures developed in December 2001 and distributed



Poster presentation given for 1st International Conference on Ballast water, at Singapore on 2nd November 2001

Other awareness raising material developed in the form of New Year Calender for the year 2002



Awareness Raising Presentation

- ✓ 1st awareness raising presentation delivered at Cochin in July 2001
- ✓ 2nd presentation delivered at Vizag in August 2001
- ✓ 3rd presentation delivered at Goa in September 2001
- ✓ 4th Presentation made at Mumbai to the Seafarers in November 2001
- ✓ 5th presentation was made at Calcutta in December 2001

Administrative measures taken

- Marine notices issued in June 2001 on implementation for the voluntary guideline of Ballast Water Management Measures
- Received confirmation from the Shipping Companies on implementation of the guidelines.
- Issued instructions to all the Major Ports to collect ballast water data

Administrative measures taken

- Apart from Mumbai and JNPT, Goa and Calcutta Ports have started sending ballast water data.
- Instructions issued to various Maritime Institutes to include IMO voluntary guideline on Ballast Water Management Measures into the course syllabus for the seafarers
- Received confirmation from the Institutes on Compliance
- Administrative measures taken to extend the project to the other major ports

CASE STUDIES

Mr. John Mac Karr IMO consultant on case studies visited India in August 2001 Case studies report has been finalized by Mr. John Mac Karr which was scrutinized by National Institute of Oceanography, Goa.

Port Baseline Survey

- ✓ Dr. Marnie Campbell visited India in October 2001 for the Workshop on Port Baseline Survey
- ✓ Scientist of National Institute of Oceanography and Fishery Survey of India conducted Port Base Line Survey for JNPT and Mumbai Port in the month of November 2001 for 10 days in presence of Dr. Marnie Campbell
- ✓ Results being analyzed at NIO & FSI

Legislation And Regulation

- National Maritime Legal consultant hired and approved by CTA in October 2001
- Prepared a draft of National legislative review for Dr. M. McConnell the IMO Consultant on ballast water Legislation
- CFP & Legal Consultant attended the meeting at Malmo in November 2001
- Final National draft legislative report accepted by CTA on /12/2001

National Meetings Conducted

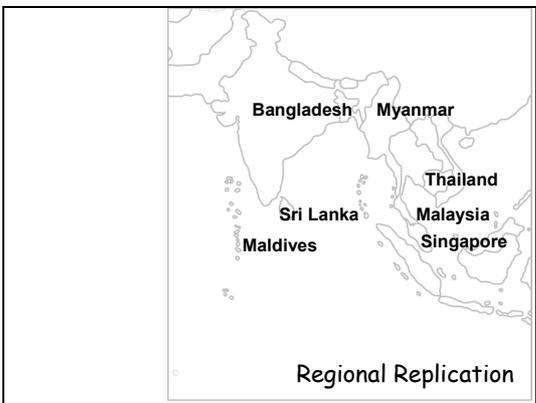
- 2nd Lead Agency meeting at Delhi in January 2001
- 3rd Lead Agency meeting at Goa in June 2001

National Meetings Conducted

- 3rd CPTF Meeting at Mumbai in January 2001
- 4th CPTF meeting at Mumbai in March 2001
- 5th CPTF meeting at Mumbai in May 2001

International Meetings Attended

- ✓ Country Focal Point & Country Focal Point (A) attended 2nd Global Task Force Meeting at IMO (London) on December 2000
- ✓ CPTF Members attended R & D seminar at IMO (London) on March'01
- ✓ Scientists from National Institute of Oceanography and Fishery Survey of India attended workshop on Port Base Line survey at South Africa on April 2001
- ✓ Country Focal Point and Country Focal Point Assistant attended 1st International conference on Ballast Water at Singapore on November 2001
- ✓ Country Focal Point and Local Legal Consultant visited Malmo (Sweden) for Legislative review meeting on November 2001



BUDGET AND FINANCE

Support CFP , CFPA, CPTF members	US \$ 110,000
Hold CPTF meetings	US \$ 30,000
Develop and Implement National Workplan	US \$ 125,000
Communication Workshop	US \$ 20,000
Implement Communication Workplan	US \$ 90,000
Port baseline survey	US \$ 50,000
In-Country Training	US \$ 30,000
Legislation and Regulation	US \$ 25,000
Ballast Water sampling equipment	US \$ 10,000
CME Personnel and training	US \$ 80,000
Implement CME System	US \$ 40,000
Regional Project Task Force ; formation, meetings and tours	US \$ 100,000
TOTAL	US \$ 710,000

STATEMENT OF ACCOUNT (FROM JULY 2000 TO DECEMBER 2001)

Figures in US \$

	Amt Available	Amt Spent	Amt Remaining
Meetings Support CFP 'A', CPTF Members	110,000	30,652	79,348
Hold CPTF Meetings	30,00	5,977	24,023
Develop and Implement National Workplan	125,000	7,638	117,362
Communication Workplan	20,000	4,339	15,661
Implement Communication Workplan	90,000	12,705	77,295
Port Base Line Survey	50,000	19,753	30,247
Legislation and Regulation	25,000	15,352	9,648
Regional Project Task Force	10,000	1,932	98,068

Total amount spent till date US \$ 98,348.00

In-kind Contribution from March 2000 to December 2001.

	In Rupees	In US \$
In-kind contribution for the Country Project Task Force Meetings.	3,19,000	6,787
In-kind contribution for the Workshop 	1,44,000	3,064
In-kind contribution for the Lead Agency Meetings	1,31,000	2,787
In-kind contribution for the Presentation to Stake Holders at various ports 	3,03,800	6,461
In-kind contribution for the Port Base Line Survey activity at Mumbai	1,44,000	3,097
In-kind contribution for the administrative and logistic support to CFP & CFP [A]	20,04,800	42,655
Total	30,46,600	64,851

FORTHCOMING ACTIVITIES

- ✓ Awareness presentation will be undertaken for Chennai Port in January 2002
- ✓ Awareness raising for city Schools & College will commence in January 2002
- ✓ Awareness presentation will be undertaken for Kandla Port in February 2002
- ✓ 2nd Indigenous posters will be designed in March 2002
- ✓ 1st R & D Workshop will be undertaken in March 2002
- ✓ 2nd set of Sampling will be undertaken for Mumbai & JNPT waters in the Month of April 2002
- ✓ Technical workshop will be undertaken at Mumbai in the month of April 2002
- ✓ 1st Regional Replication visit will be undertaken in the month of April 2002

Meetings & Workshops									
	Delegates (No)	Days (No)	Working hours per day	Delegates Professional Rate (Rs. 3000/day)	Traveling Expenses (Rs.)	Conference charges (Rs.)	Total in Rs.	US \$	
1 st CPTF	12	1	8	36,000	20,000	20,000	81,000	1,723	
2 nd CPTF	11	2	8	66,000	-	-	66,000	1,404	
3 rd CPTF	11	2	8	66,000	-	-	66,000	1,404	
4 th CPTF	9	1	8	27,000	-	25,000	52,000	1,106	
5 th CPTF	9	2	8	54,000	-	-	54,000	1,148	
1 st Workshop	11	2	8	66,000	-	-	66,000	1,404	
2 nd Workshop	13	2	8	76,000	-	-	78,000	1,659	
1 st Lead Agency	3	1	8	9,000	25,000	25,000	15,000	319	
2 nd Lead Agency	7	1	8	21,000	25,000	25,000	51,000	1,085	
3 rd Lead Agency	5	1	8	15,000	25,000	25,000	65,000	1,383	
							Grand Total	5,94,000	12,635

Awareness Presentation								
	Delegates (No)	Days (No)	Working hours per day	Delegates Professional Rate (Rs. 3000/day)	Traveling Expenses (Rs.)	Conference charges (Rs.)	Total in Rs.	US \$
Kochi	4	2	8	24,000	2600	35,000	61,600	1,310
Vizag	3	2	8	18,000	2600	30,000	50,600	1,076
Goa	3	2	8	18,000	2600	35,000	55,600	1,182
LBS College	4	1	8	12,000	-	25,000	37,000	787
Kolkata	2	2	8	12,000	-	50,000	62,000	1,319
MTi	4	1	8	12,000	-	25,000	37,000	787

Port Baseline Survey					
	Days (No)	Working hours per day	Rate /day (Rs.)	Total in Rs.	US \$
Boat	3	8	5,000	15,000	323
Labs	10	8	10,000	1,00,000	2151
Sr. Scientist	7	8	3,000	21,000	452
Tech. Staff	8	8	1,000	8,000	172

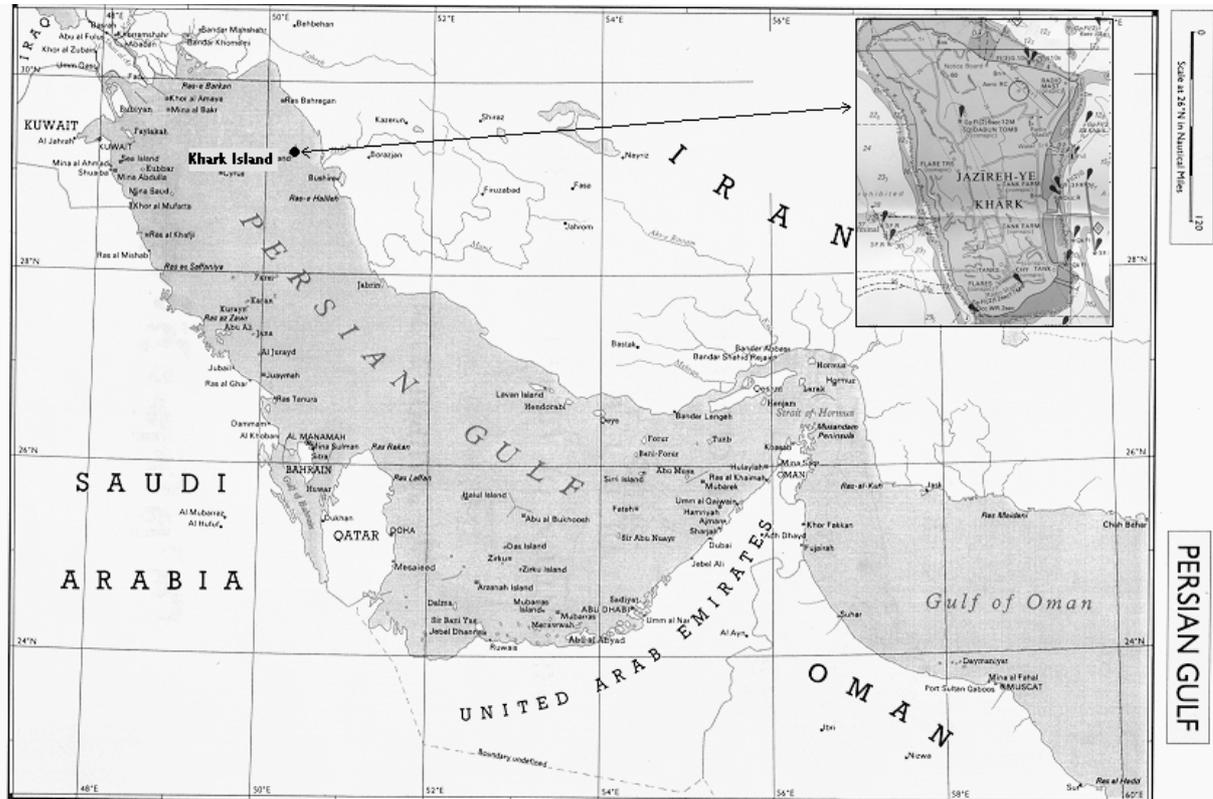
Administrative & Logistic Support for CFP & CFP(A)

	Days (No)	Delegates professional rate	Secreatrial ass. Prof. Rate Rs. 1000	Total in Rs.	US \$
CFP	378	3000	3000	11,34,000	24,128
Secr. Asst. for CFP	378	-	-	3,78,000	8,043
Other Office Supports (Hardware, Off. Asst., Rent, etc.)	-	-	-	4,92,800	10,598

	Month (No)	Delegates professional rate	Total in Rs.	US \$
CFP - A	18	25,000	4,50,000	9,677
Others	18	-	40,000	860

Islamic Republic of Iran

Location of Khark Island in the Persian Gulf



Country Project Task Force Members

- Mr. H. Taymourtash MS General Director of Safety and Maritime Protection
- Mr. V Yavari Ph.D. CFP-A
- Mr. A Parhizi MS PSO
- Mr. N Keivan Rad MS PSO
- Mr. N Pourang MS Iranian Fisheries Organization
- Mr. O Sedighi MS Department of Environment
- Mr. A Farrokhnejad BS Off-shore Oil Company
- Mr. M R. Kamza BS Off-shore Oil Company
- Mr. M Khoramdel Vahed BS National Iranian Oil Company (NIOC)
- Mr. M Bahrami BS National Iranian Tanker Company (NITC)
- Mr. N. Amjadi Ph.D. Ministry of Health
- Mr. A. Khojasteh MS PSO
- Mr. F. Mashhoonn, BS Institute of Petroleum Industry,
- Mr. G. Miraki, MS Fisheries Company
- Mr. G. Hafezi BS Oil Exporting Terminal Co
- Mr. D. Mansouri, MS Tarbiat Modares University
- Mr. H. Daneshgoo, BS PSO,
- Mr. A. S. Torabizadeh BS National Iranian Shipping Lines Company
- Mr. M. Sorosh, Ph.D. Ministry of health
- Mr. M Zahedi, Ph.D, Local Legal Consultant

Global Ballast Water Management Programme - I.R. Iran Country Status Report Summary Table - 2001

(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"> Purchased office equipment. Purchased office equipment for Khark Island. Set-up CFP-A office. 	110,000	35,000 28,000 in kind
	1.B.2	21.03	Support CPTF & CFP Assistant			
	1.B.3	32.05	Hold CPTF Meetings	<ul style="list-style-type: none"> Held the Fourth and Fifth Meetings in January And February. Presented complete progress report of the project to CPTF. Discussed and finalized the plan of action for the future tasks. 	27,000	1,809 8,100 in kind
	1.B.4	21.02	Develop & implement National Workplan	<ul style="list-style-type: none"> Developed National Workplan. Obtained the final approval of PCU (March-2001). 	2,500	2,500 4,000 in kind
	1.B.4 (x)	21.02	Country specific activities			
2. Communication	2.3	32.07	Case Studies	<ul style="list-style-type: none"> Arranged meeting of case study consultant with potential individuals from universities (Tehran and Shahid Chamran), Department of Environment, Fisheries Organization, Department of Health and PSO. Nominated and designate in-country co-author of case studies. Collected all available in-country information for the case study. Regular net-working with the case study consultant is in progress. 	2000 Re-allocated from activity 1.B.4	Nil 15,000 in kind
	2.5	21.05	Implement country communication plan.	<ul style="list-style-type: none"> Developed National Communication Workplan. Finalized contract with an efficient advertising company for various awareness raising activities (October). Designed, printed and distributed Globallast posters in Farsi and Arabic. Presented various seminars on Globallast in related organizations and universities. National TV and newspapers information release on Globallast programme. Preparation of brochure and news letter in progress Set up stall of Globallast at the research week of Shahid Chamran University. 	90,000	4,589 3,000 in kind
3. Risk Assessment	3.1	21.06	Carry out ballast water risk assessments	<ul style="list-style-type: none"> Collection of BWRF at Khark Island Port is continued (Since July 2000). Collection of existing information on biological, physical and chemical environmental characteristics of the Persian Gulf. Formation of in-country Ballast Water risk assessment team. Installment of hardware and software required for risk assessment. 	7000 re-allocated from activities 1.B.3 and 1.B.4	Nil 4,000 in kind

	3.2	21.07	Carry out Port Baseline Surveys	<ul style="list-style-type: none"> Attend PBS workshop at Saldana Bay, South Africa (April). Formation of in-country survey teams. Conducted in-country PBS training workshop for in-country team members (August). Visit to the demonstration site along with the PCU technical adviser and consultant, to finalize sampling stations and workplan. Conducted the first sampling phase of the survey (August). Analysis of samples in progress. 	66,500 16,500 re-allocated from activity 1.B.4	21,032 65,000 in kind
4. Ballast Water Management Measures	4.1	21.09	Translate / promulgate IMO Guidelines	<ul style="list-style-type: none"> 		
	4.2	11.53 32.03 32.04	Assist PCU to develop/deliver BW training package (UN Train-X)	<ul style="list-style-type: none"> 		
	4.3	21.08	Conduct National legislative review.	<ul style="list-style-type: none"> Identification and appointment of local legal consultant. Reviewed and collected all existing in-country legislation and regulations related to Ballast Water. With the cooperation of PCU consultant and based on TOR, prepared interim legislative report and Model law for management of ballast water. Participated and presented the legislative review and Model Law at the workshop in WMU. Final legislative report and Model Law was submitted to the international consultant and PCU. 	25,000	6,405 3,000 in kind
	4.5	In Country	Develop National BW management policy, strategy and plan.	<ul style="list-style-type: none"> The issue discussed in CPTF meetings and initial planning commenced. Participated in the Ballast Water Treatment Symposium and Workshop, London (March). Presented computer software at the BW Treatment Symposium and Workshop, London. Submitted paper to the First International Ballast Water Treatment Conference at Singapore (November). 	Nil	Nil 2,000 in kind
5. Compliance Enforcement & Monitoring	5.2	42.01	Ballast water sampling equipment	<ul style="list-style-type: none"> 		
	5.3	32.02	In-country CME personnel & training	<ul style="list-style-type: none"> Regular networking with CME scoping study consultant. 	Nil	Nil
	5.4	21.11	Implement compliance, enforcement and monitoring arrangements.			

6. Regional Activities	6.1	16.02	Form RPTFs	<ul style="list-style-type: none"> • Developed contact with major regional organizations, ROPME, MEMAC and GAOCMAO. • Obtained agreement of these organizations to cooperate with Globalast programme in the region. • Preparation of an initial draft agenda for the first regional meeting. • Have commenced the process of appointing an international consultant through PCU. 	110,000	Nil 2,500 in kind
7. Resourcing & Financing	6.2 7.1	32.09 In Country	RPTF Meetings & Study Tours 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"> • • 		

Forthcoming Tasks of the Project in 2002

Activity 1.B.3: Support CPTF Meetings

Tasks to be undertaken	Budget available	Time line
<ul style="list-style-type: none"> • Will hold the 6th, 7th, and 8th meetings of CPTF. • Will present programme progress report of the project. • In the future CPTF meetings special emphasize will be given to country specific activities, regional cooperation and replication, resourcing and financing. 	25,191 US\$	6th CPTF Meet in March. 7th CPTF Meet in June. 8th CPTF Meet in November

Activity 1.B.4.2 Country specific activities A. The twin port approach

<ul style="list-style-type: none"> • Identification of twin port country • Securing agreement from potential • Drafting, negotiating and signing of mutual cooperation agreement. • Study tours by officials from Iran to the twin port country. • Training mission by experts from the twin port country to Iran. • Sharing of data on BWM. • Opening and maintenance of communication channels. 	60,000 US\$	July – December
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Activity 1.B.4.2: Country specific activities, B. Physical Oceanography of Khark Island

<ul style="list-style-type: none"> • Initial, comprehensive literature and data search. • Identify experts to plan and supervise the study. • Under take field studies addressing the dispersal of BW discharged. • Work towards development of a 3D hydrodynamic model. • Use results for BW management measures. 	40,000 US\$	March, 2002 March, 2003 (seasonal study)
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Activity 2.3: Case studies

<ul style="list-style-type: none"> • The final case study report will be reviewed by co-author, CPTF and CFP. • The report will be distributed among authorities, NGO's and other related parties. • Based on feed back a seminar will be conducted on the subject. 	Nil	January - July
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Activity 2.5: Implementation of country communication workplan

<ul style="list-style-type: none"> • Will continue various awarness raising programmes. • Development of a web-site in Farsi and English. • Holding of seminars. • Distribution of news letters, pamphlets and posters. • Media information release. Based on feed back a seminar will be conducted on the subject. 	85,411 US\$	January – December
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Activity 3.1: Ballast Water Risk Assessment

<ul style="list-style-type: none"> • With the coordination of PCU will arrange for the two weeks visits of international consultants. • Will arrange meetings of consultant with port authorities, maritime administration, fisheries and environmental administration. • Preparation of risk assessment model for Khark Island Port. • Training of country risk assessment team by the international consultant. • Preparation of workplan and arrangement for training of relevant individuals by the members of local risk assessment team. • Preparation of risk assessment models for other major ports of the country. 	7,000 US\$ Reallocated from activities 1.B.3 and 1.B.4	March - July
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Activity 3.2: Port Baseline Survey

<ul style="list-style-type: none"> • Will conduct the second phase of the port baseline survey as per the approved Workplan. • Will carry out qualitative and quantitative analysis of samples. • Will submit the final report of the port baseline survey to PCU. 	45,468 US\$	February – December
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Activity 4.3: Legislation and Regulation

<ul style="list-style-type: none"> • Obtain final approval of PCU on legislative report. • Prepare recommendation for immediate implementation of IMO guidelines by [Res.A.868(20)] adoption of PSO supreme council internal orders. 	18,594 US\$	February
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Activity 6: Regional Cooperation and Replication

<ul style="list-style-type: none"> • Appointment of international consultant through PCU. • Participation in the GAOCMAO meeting. • Identification of potential RPTF members. • Will conduct the 1st RPTF meeting, July. • Will prepare RPTF workplan. • Implementation of RPTF workplan. 	100,000 US\$	February - December
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South Africa



**South Africa Status Report &
National Work Plan**



**Global *Ballast Water*
Management Programme**

CPTF Meetings

- 2nd meeting held in conjunction with launch function
- 3rd meeting planned immediately before policy workshop
- DEAT to sponsor all CPTF meetings thereafter

Country-Specific Activities

- TOR developed for:
 - Phytoplankton monitoring programme
 - To include west and east coast stations
 - Phytoplankton case study
 - To include socio-economic impacts
 - Pathogen characterisation study
 - 3-month analysis of ballast water contents

Country-Specific Activities cont.

Planning initiated for:

- Testing of local BW treatment technology
 - In conjunction with IMT
- Regional database development
 - Store data from activities, and feedback to managing authorities
- National port survey replication
 - National Ports Authority to cover costs

Communication/Awareness Raising

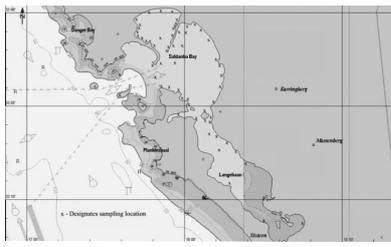
- Launch function
- Press releases
- Presentations
- Posters and pamphlets
- Displays at aquariums
- Magazine articles
- Television documentary
- Website developed



Risk Assessment Preparations

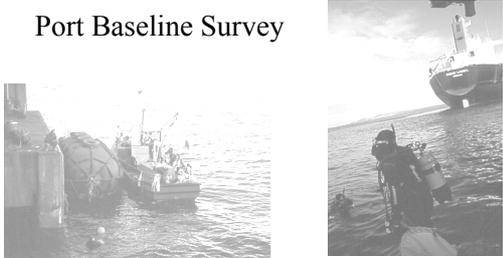
- Ballast water reporting forms
- Shipping movement data
- Species list compiled for Saldanha Bay
- Computer equipment purchased

Port Baseline Survey



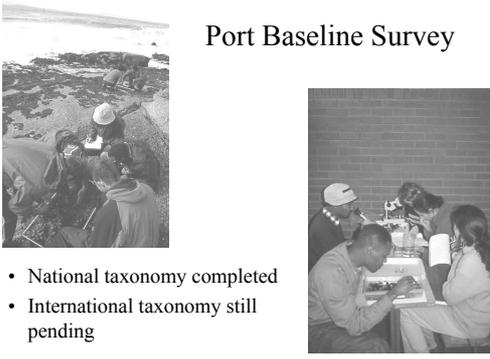
- Planning workshops and training

Port Baseline Survey



- Field work completed in April
- Associated global workshop held

Port Baseline Survey



- National taxonomy completed
- International taxonomy still pending

Port Baseline Survey

- Papers presented on efficacy of CRIMP protocols & need for replicate surveys
- National Ports Authority considering budget for new surveys

Management Plan Development

- Legislation review completed
- Global policy development workshop attended
- Local adaptation of ballast water reporting forms

Regional Co-operation

- CFP-A presentation at oil pollution meeting of WIO Island States in Cape Town
- CFP-A presentation at WIOMSA symposium in Tanzania



Regional Co-operation cont.

- CFP-A presentation at BENEFIT conference in Namibia
- CFP presentation at meeting of Nairobi Convention in Mozambique
- Interest generated from Nigeria

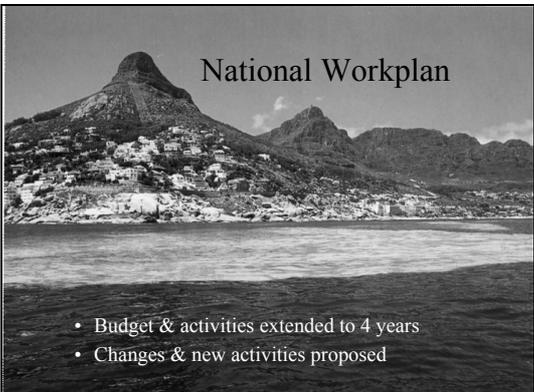
Other Duties

- CFP-A and S.A. rep from IMT attended R&D Symposium at IMO
- Hosted consultant during visit to assess Clearing House Mechanism
- CFP-A presentation on CRIMP protocols at Singapore conference

National Workplan Development

- GloBallast meeting in Singapore
- New draft to include 4th year and new activities
- Revisions based on PCU and CPTF comments

National Workplan



- Budget & activities extended to 4 years
- Changes & new activities proposed

Programme Co-ordination & Management

- Support for CFP-A
- Programme running costs

Available: \$100000 Spent: \$37000

Programme Co-ordination & Management cont.

- CPTF meetings
 - Third meeting to be held in conjunction with legal workshop, March 2002
 - Lead Agency to sponsor subsequent meetings

Available: \$2000 Spent: \$100

Programme Co-ordination & Management cont.

- National Activities
 - National Workplan development workshop
 - Aureococcus case study
 - Plankton monitoring
 - Pathogen characterisation study
 - Testing of BW treatment technology
 - Regional database development

Available: \$125000 Spent: \$1500

Communication, Education & Awareness Raising

- Consultant to help implement comm. Plan
- Community outreach programme
- New Programme displays
- Printing of new posters
- Television documentary sponsored by '50/50'
- Magazine articles

Available: \$106000 Spent: \$19500

Ballast Water Risk Assessment

- Purchase computer equipment to support global RA consultant
- Student to log shipping data
- Workshop for local risk assessment team
 - Skills transfer
 - Develop plan for South African ports

Required: \$10000 (Allocated from 1.B.3, 4)
Spent: \$3850

Port Baseline Survey

- Data storage within regional database to be developed
- Overall costs less than planned
 - (\$14400 extra originally allocated)

Available: \$50000 Spent: \$35600

Ballast Water Management Plan

- Legislation review and development of recommendations
- Policy development workshop
- Workshop to develop ballast water management plan and measures (Saldanha)
- Implementation of CME systems

Available: \$65000 Spent: \$17500

In-Country Training

- Training for ship personnel, port authorities and other stakeholders
- CME personnel and training
 - Develop new TRAIN-X modules
 - Trainers workshop

Available: \$110000 Spent: \$0

Regional Co-operation & Replication

- Awareness raising seminars/conferences
- CFP-A to hold seminars/meetings in each country to initiate RPTF
- Regional workshop in Saldanha Bay
- Two RPTF meetings
- Regional port survey assistance

Available: \$120000 Spent: \$1000

Resourcing and Financing

- Generic global study by PCU to suggest range of options
- National identification of self financing mechanisms
- Workshop to select appropriate national mechanisms to be implemented

Available: \$2000 Spent: \$0

Budget 2002

<u>Activity</u>	<u>Cost US\$</u>
• Support CFP Assistant	2520
• CPTF meeting	1000
• Aureococcus case study	15000
• Initiate plankton monitoring	20000
• Pathogen characterisation	20000
• Regional database development	35000
• Testing of BW treatment	5000

Budget 2002 cont.

<u>Activity</u>	<u>Cost US\$</u>
• Communication work plan	51000
• International taxonomists	10000
• Risk assessment workshop	6000
• Policy development workshop	3000
• Production of policy document	5000
• Regional co-operation	37000
Total	210520

Ukraine

Just a little more than a year has passed since we discussed with you our national workplans and gave our offers at 2nd GPTF meeting. Many of us already then understood that not all that looked well on a paper would be implemented into life successfully. Practice brings its corrective amendments based on life realities.

On experience of the implementation of the Programme tasks for the last year it is possible to say, that some of them can hardly be unified. What I mean is that uniform application of the same methods to perform the Programme task, let say in India and in Ukraine, is not always advisable. Nevertheless, these tasks are carried out and, despite that the results appear to be different, the certain progress in realization of the Program is obvious.

The activity of the Odessa Demonstration Site (Odessa DS) starting from a beginning of its work till now we will consider according to well-known positions of Monthly Country Status Report.

Day-to-Day Management

Presenting our report on the 2nd GPTF meeting, we informed you about essential difficulties with establishing of the Programme bank account and signing of Memorandum of Understanding between IMO and our Ministry of Transport. Fortunately, these difficulties we managed to overcome.

The demonstration site is equipped with all necessary equipment and now we are ready to accept large conferences and to develop lecture activity. Certain difficulties are posed by the fact that the building, where Shipping Safety Inspectorate as Lead Agency currently housed is now under reconstruction. This caused certain lacks in a work of communication.

Within the reported period we provided staying in Ukraine and sufficient work for five PCU consultants (Messrs. Stephan Gollasch, Steve Raaymakers, Oleg Khalimonov, Mrs. Marnie Campbell and Anona Ah Poe [-Poi-]). During their visits we repeatedly held our CPTF meetings. The successful performance of this task is connected, first of all, that we managed to involve for this purpose many people not directly connected to the Program, but interested in its successful implementation.

The performance of the tasks of the Program is connected with preparing of many reporting & financial documents. That is to tell the truth takes a lot of time.

The organization of a regional conference required the efforts of many people. And this work is still not completed. The full set of conference materials and its publication in two languages, English and Russian, is under completion. Only recently the last reporting documents from the participants were received.

Organization of CPTF Meetings

During reported time Odessa DS held five CPTF meetings. All meetings were dedicated to the implementation of key Programme tasks. First one was devoted to establishment of CPTF and distribution of key tasks between CPTF members. The second and third – to different stages of development of the National Workplan, explanations of contracting system under the programme. The fourth meeting was a preparation activity to Port Baseline Survey. The fifth meeting was devoted to activity under Clearinghouse Mechanism and coming Risk Assessment.

It is necessary to recognize that by virtue of different reasons, and first of all, because of hard work schedule the number of active CPTF members has reduced, but those who stayed ready to perform necessary work.

Each CPTF meeting has appropriate protocol which is regularly directed to PCU.

Four of five CPTF meetings held as in-kind support from Ukraine.

GPTF related Activities

CFP and CFP-A are already participating successfully in the 3rd GPTF meeting.

Communication /Awareness Raising Activities

Starting its work Odessa DS found out the level of public awareness on a problem of transfer of unwanted marine species and pathogens ships' ballast water. The result was that such information is available only to experts of marine biology, public health and epidemiologists. The wide public knows about a problem practically nothing, and shipping representatives knew about it very little. That is why it was decided to begin educational activity from wide coverage of all aspects of a problem in mass media, via TV programmes, and in specialized press for seamen.

Big articles based on IMO materials and Institute of Biology of Southern Seas from Academy of Sciences of Ukraine data, were published in magazines "Shipping", "Ports of Ukraine", "Emergency Situations", Russian magazine "Navigation", practically in all popular newspapers of Ukraine and Odessa region.

Interviews with CFP, marine scientists-biologists, materials about Port Baseline Survey in the Port of Odessa, video reports about 1st Black Sea Conference on BW Management and Control were shown in different TV programs.

Detailed reports on a problem, search of its solution, about role of international organizations, about IMO activity in this respect, about GloBallast Program as a whole, and how Odessa DS is functioning, were presented at the International Conference in Budapest (October, 2000), International Symposium "Ecological Problems of the Black Sea" (November, 2001), 1st Black Sea Conference on BW Management and Control (October, 2001).

For the reported period Odessa DS has distributed a number of posters about a problem developed by PCU in London, and having translated them into Ukrainian printed them out and distributed at national level.

GloBallast Programme has been identified and advertised in a set of National Library of Sea-man currently published under aegis of Ministry of Transport of Ukraine and Shipping Safety Inspectorate of Ukraine.

The other significant input into awareness raising will be made by advertising of East-European GloBallast web-site which has been established under the following address in inter-net: <http://www.globallast.od.ua>

It is also planned to design and produce posters and/or brochures specifically tailored to the culture and society of Ukraine and the Black Sea region to be spread at regional level.

Risk Assessment Activity

Previously in ports of Ukraine, including Odessa port, collecting and processing of ballast data and ships patterns did not carried out. Besides it there is a requirement in national legislation of Ukraine about obligatory change of ballast for ships before entering to national waters, i.e. "blanket approach". That is why it is possible to assume, that in port area all ships discharge ballast taken in Black Sea between Bosphorus Strait and port of call. In these conditions the typical form of master report to port authorities about ballast water loses very important for risk assessment information about primary places of ballast up-take. Understanding this, we have entered into practice by the order of State Department of Maritime and Inland Water Transport the requirement to provide such information to

port authorities under IMO BW re-reporting form. Data regarding water ballast and ship patterns for previous years is not available. We hope, that PCU consultant will take advantage of those data, which we have up to this time, and this work will be duly performed.

To the present time Odessa DS has bought the necessary computer hardware and carry out the work on selection of the experts to participate in national Risk Assessment Team.

Port Baseline Survey

It should be recognized that Odessa DS proved to be the most ready for practical realization of this activity of our Program. Institute of Biology of Southern Seas of Academy of Sciences of Ukraine placed in Odessa, and its experts had wide practice of conducting similar re-researches.

In order to conduct researches according to the plan offered by PCU consultant Dr Marnie Campbell and adjusted with the experts of institute, there has been purchased modern standard equipment from GloBallast funds. Non-standard equipment, such as networks for collecting of zoo- and ichthyoplankton, framework for collecting of fouling samples, pipes for ground sampling, trap for fishes and Crustacea [krustaishia] / shellfish, was made in Odessa. Therefore preparations took a lot of time and the first voyage of diving boat "Sprut" was on August 20, 2001. The works of research team on the first point were made under coordination of Dr Campbell and with her invaluable help. Further works were carried out in complete conformity with the international demands according to CRIMP Protocol (Center for Research on Introduced marine Pests).

The researches were carried out by 10 experts under supervision of Scientific and Research Institute of Biology of Southern Seas during three autumn months. For this time at 50 sampling points of Odessa Port have been taken the samples of:

- Macrobenthos of fouling samplings - 339;
- Macrozoobenthos from dredged samplings - 129;
- Meiobenthos - 29 of fouling samplings and 31 dredged samplings;
- Zooplankton - 73;
- Tubes with soil samplings - 132 (44 for definition of cyst, granulometric content and organic substances in soil);
- Microbiologic fouling samples - 14;
- Ichthyology samples - 18;
- Ichthyology samples in: vertical haul - 59, drag-net haul - 8;
- Samples of shellfish and fishes by traps - 40;
- Samples for definition of sea fungi: in soil - 33, in water - 66, in foulings - 231.

There have been taken 8 cassettes of video material under water.

Hydro and hydro-chemic parameters of seawater in 50 sampling points of Odessa Port have been studied, about 90 measurements of sea flows and water transparency were made.

All samples have been submitted to the specialists of the Institute of southern Seas to be processed (definition of a species structure, scoring of a number and biomass of marine organisms, collecting of invasive species). For the present time it is possible to say, that a number of introduced species are found in samples. These species such as *Mnemiopsis leidyi*, *Beroe ovata*, *Rithropanopaeus harrisii tridentatus* etc. have been discovered in Black Sea during previous years. But there have been found a naked branchial type of molluscum. And now this kind is being identified as well as the region of its possible origin.

On the basis of collected samples there are preparing a special demonstration stand which will familiarizes the experts and wide public with introduced species of Black Sea, as well as with donor areas, places of their origin. Video material made during hydrobiological sampling will be taken for a scientific and popular films about exotic species in Black Sea. A number of articles on this problem have been already developed for scientific and awareness rising purposes.

Preliminary results of Program implementation as for port baseline survey activity in Odessa port were presented at 1st Black Sea Conference on BW Management and Control in October, 2001. There have been presented reports "Black Sea Invaders and ecological problems" (academician Yu. Zaitsev) and "Biological aspects of implementation of GloBallast Program" (Messrs. B. Alexandrov and N. Berlinsky).

It is planned to conduct in future the next similar survey in spring / summer period of year 2002, and then, if the founders of the Program will agree with our proposals and if there will be a financial support for this purpose, it is planned during spring / summer of 2003 to hold base survey in extremely vulnerable area of the Black Sea – that is delta of Danube river together with our Romanian scientists and colleagues. So, the practical decision for extremely important problem on protection of Danube river biosphere reserve will be combined with replication of Odessa DS experience via the framework of regional cooperation.

Education/Training Activities

Odessa DS has developed two-hour educational lecture in Russian about a problem of water ballast, its management onboard and in port intended for marine educational institutions, training centres of seamen, and also for senior classes of secondary schools and lyceums. A typical lecture at Odessa Post-Diploma Training Centre of Seamen is now preparing.

It is among nearest plans of our DS to adapt these lectures for special biological educational institutions and training courses for ports personnel.

To increase a level of knowledge about a problem a newly established web-site of East European DS in three languages (English, Russian and Ukrainian) will help. The personnel of Shipping Safety Inspectorate will support it in the long term, and also has taken a special training within the framework of this task.

Legal Activities.

As on others Demonstration sites, the second half of this year was devoted to activity connected with the analysis of national legislation and development of proposals on its adaptation to IMO Guidelines provisions and future convention.

To perform this work it was required to carry out the analysis of more than forty national legislative acts, to study positions of shipping industry representatives (shipping companies and ports), ecological and anti-epidemic control bodies, marine medicine, marine biology science. Based on such analysis the frame proposals were made.

In this connection I would like to express our appreciation for those volume of work, which managed to be executed by Ballast Water Working Group within intersession period. In case our working group realizes all plans, a number of planned documents of the national legislation will be accepted internationally. Those will be Ballast Water Management Guidelines (Regulation B-1), Guidelines on Sampling (Article 15 (1) (b)), Sediment Management Guide-lines (Regulation B-5 (2)), Model Ballast Water Management Plan etc. Thus, the task of implementing these documents into the national legislation will be essentially simplified.

The work on the analysis of national legislation proved to be of most help to us. Having done this work, we start to develop concrete documents and amendments according to our plans. Taking into

account the mentioned work of BW Working Group, it is expedient to wait of final results of its work for the subsequent development of real national documents.

Compliance Monitoring and Enforcement (CME) Activities.

The CME system in a part of compliance of BW sampling procedures from ships' tanks in Odessa port, their transportation, storage and laboratory analyses, has not been established in Odessa DS. BW sampling is carried out by State Inspection on Protection of Black Sea, which is authorized based on their own instruction to issue permissions to ships to discharge water ballast in port area.

Entering into force of the International Guidelines on BW Sampling procedures will give Odessa DS sufficient base for establishment of efficient CME mechanism.

Regional Cooperation and Replication Activities.

During last year the most Odessa DS activities were concentrated on this issue. Chronological activity of Odessa DS may be presented in the following way.

In June 2001 the letter with the information on purposes and tasks of GloBallast Program and with the offer to consider opportunities of cooperation with Odessa DS as Programme representative in a region has been directed to Maritime Administrations of six countries of Black Sea region. With Odessa DS and PCU involvement a first version of Regional Action Plan to minimize the transfer of unwanted marine species and pathogens in ships' BW and draft of Resolution to enter it into force were developed.

Within July-September a special PCU regional consultant (Mr. O. Khalimonov) and CFP-A Mr. S. Limanchuk have made a tour visits to regional countries (except Turkey) and held a number of meetings with maritime and ecological public of these countries. These meetings were aimed at introducing on the purposes and tasks of GloBallast Program, possible regional cooperation, and consideration of draft Resolution and RAP. The idea of regional cooperation was unanimously supported by all countries.

As a result of huge preparatory work, involved IMO responsible persons, all GloBallast PCU staff, dozens of enthusiasts from Odessa DS and Shipping Safety Inspectorate of Ukraine, the 1st Black Sea Conference on BW Management and control Regional conference of the countries of the Black sea on a problem of management and control was held in Odessa from October 10 till October 12, 2001. The conference was attended by more than 50 officials from all countries of the region representing the most different interested organizations, by representatives of shipping industry, scientific circles, mass media. The conference was opened and closed by the Secretary General of IMO, Mr. William O'Neil.

The conference considered draft of Regional Action Plan and Resolution, reviewed possible amendments to them, listened to opinions of all participating delegations and as a result both documents were accepted unanimously.

The outcomes of the conference were presented by Ukraine on MEPC 47. A full set of conference materials in English / Russian languages now is almost ready and will be available on our web-site.

Progress with national contributions to the Programme / self-financing activities.

Among Programme activities carried out as in-kind support from Ukraine are the following:

Activity	Task undertaken	In-kind, US\$
1.B.3: Support CPTF Meetings	Four CPTF meetings held	4 x 2820 = 11 280
1.B.4: Develop/Implement National Workplan for Ukraine	Development of 1 st version of National Workplan	10 000
1.B.4 (b): National/Regional Co-ordination Centre – Black Sea Centre for Information & Training on Ballast Water Management.	Providing office venue, furniture, communication, commodities, etc. for Odessa DS	12 000
1.B.4 (d): Ballast water treatment technology.	BW treatment technologies (time of specialists)	1 000
1.B.4 (c): Institutional strengthening of marine laboratory facilities in Odessa.	Administrative support of marine laboratories	1 000
2.2: Generic Communication, Education and Awareness Raising Materials	Communication activities, GloBallast data bank, advertising posters, press releases, etc.	2 000
2.3: Case Studies	Administrative support for Case Studies consultant	Not assessed
2.4: Country Communication Workshops and Work plans	National Communication Workshop to develop National Communication Workplan	2 820
2.4: Country Communication Workshops and Work plans	Development of National Communication Workplan	5 000
2.5 (a): Awareness Raising Seminars	GloBallast Seminar for marine biologists (Odessa, Nov 2000)	6 200
2.5 (b): National/Regional web site	Support web-site	500
2.5 (e): Video and TV documentary	Press publications and TV meetings	1 500
2.5 (f): Country-specific awareness raising materials.	Translation of posters, organization of printing, etc.	500
3.1: Ballast Water Risk Assessment	Collecting information and establishing GloBallast team	500
3.2: Port Baseline Surveys	Administrative support, day-to-day management and transport under Port Baseline Survey	14 000
4.3: Legislation and Regulations:	National legislation regarding BW has been collected and primary processed	5 000
Total		73 300

Country-specific activities under National Workplan, not covered by Global PIP.

One of directions of Odessa DS activity, not covered by Global PIP, is consideration of the perspective proposals of national scientists and inventors on technical & technological methods of ballast water treatment and maintenance of control procedures on ballast operations onboard a vessel.

For the time being a number of technical developments has been collected and systematized. Our DS is ready to organize an independent expertise of proposed decisions. The delay was caused by the absence of international criteria for efficiency estimation of treatment systems. We understand that it is a quite objective reason, but thus we should note that the interest of the developers (some of whom have a rather original and perspective solutions) to GloBallast Program and to its possible support gradually dies. We don't want to lose contacts with talented people, and consequently again we

addressing PCU with the offer to give their principal agreement to carry out a preliminary estimation of submitted proposals based on the minimal “tool set” of criteria, which we will develop by ourselves. Selected most perspective 1, 2 or 3 developments will wait till official estimation according to IMO criteria, which, as we hope, will be accepted by 2003.

Other duties assigned by CFP/PCU.

Among other duties carried out by CFP, the biggest difficulties are posed by the necessity in dealing with reporting & financial documents. It is not truth to state that it is complex, but it takes lot of time. The required understanding in all links of the financial and economic relations has appeared only in the end of the first year of work.

Odessa port baseline survey

Prolongation / extension

Except scheduled monitoring surveys in Odessa port on 50 points, the Odessa GloBallast Demonstration Site (DS) finds it necessary to extend these researches. The reasoning for this is that Black Sea belongs to the kind of sharply expressed climatic annual changes. This seasonal variability causes change of characteristic flora and fauna in warm-water period (April-September) and cold-water period (October-March). The surveys held under GloBallast Programme were in cold-water period and revealed more than ten exotic species introduced with ballast waters of ships. The proposal of our DS consists in financing of additional survey in Odessa port during warm-water period. In particular, it will allow to find many from not registered kinds of seaweed, as well as invertebrates and fishes. At the same time, the collecting of all data (roughly up to 200 samples of plankton and benthos), will require additional time and facilities for their processing, that does not enter into the volume of financing from the Ukrainian side. On our account, to process the samples taken in warm-water period will require about 10 months, and financing is - 12 thousand dollars. Filming in the warm-water period is scheduled on April - June 2002. The experts of the Institute of Biology of Southern Seas are ready to start processing of samples together with the end of works under the cold-water period. Thus, the final report on the second stage of port baseline survey in Odessa port can be finished in February 2003.

Port survey activity under GloBallast programme in 2003.

Another important feature of Black Sea basin being under certain influence of a significant river outlet, is lays in the presence of water areas with low salinity which has its influence on adaptation of newly introduced species (plants and animals). The ports of Azov Sea - Mariupol, Taganrog and others are belonged to the ports with low salinity and have other composition of aquatic organisms. In this connection while choosing the field for future survey the factor of desalting should be taken into account. More than 53 % of fresh water outlet into the Black Sea and more than 70 % into its northwest part is determined by Danube river – the second-largest river of Europe. The annual outlet of Danube exceeds 220 cubic meters. Bilateral Romanian-Ukrainian Biosphere Reservation is situated in Danube delta. In 1999 this reservation with the total area of more than 600 thousand square km received a UNESCO Certificate – World Heritage. Under this status this territory is a unique one, and bilateral Reservation – is number five in the world. According to data obtained by our specialist there are a number of introduced species in the reservation. These species posed the threat not only to traditional kinds of craft, for example fishing, but also to the existence of unique kinds of flora and fauna which determined the unique status of this region. In particular, the following species have been discovered here: a Miya mussel and Dutch crab which have already pressed indigenous species of Danube aquatic delta. More recently (from 1997) in the Romanian part of Danube delta in sea lagoons Raselm and Sinoe, there have been found the Chinese rough-legged crab which was delivered here with ships' ballast waters. In Ukrainian part this kind was registered in 1998.

It should be taken into account that there are strong shipping patterns between Black Sea and Danube via three canals on Romanian territory and it is planned to establish navigation in Ukrainian part of Danube mouth with intensity of not less than 2 vessels per hour. It will inevitably result in essential increase of risk of new introductions into this unique ecosystem. Also it is important to note, that the existing international programmes and projects, such as TACIS from the EU for Danube lakes, projects of WWF on water areas management, etc. do not provide organization of special monitoring for introduction of new species and their interaction with local flora and fauna. As the navigation will start the risk of new introductions will increase because of obligatory discharge of BW as the ships transfer from the water of high density to water of low density (that is from sea water to river water).

It is proposed to organize in 2003 express survey in Danube water area of Romania and Ukraine. Within this activity the following tasks to be achieved:

- Estimation of real risk for introducing of exotic species into marine and river environment of Danube mouth;
- Estimation of current influence of exotic species on an indigenous flora and fauna of Danube mouth reservation;
- To provide training of Romanian experts and organize a port survey monitoring for BW introductions in Romanian waters;
- Elaboration of recommendations / guidelines on risk assessment in fresh water territories of Black Sea.

Other/Miscellaneous.

It is not in a practice of such forums to waste time on trifles, so let's hope that all details will be set along the way.

Dear colleagues! The PCU statement regarding the possibility to prolong the term of GloBallast Programme implementation and the necessity in relevant amendment to national workplan has caught us to certain level unawares. But nevertheless we did this job and hope that with PCU help and advice this revised plan will be approved.

Activity Summary

Activity	Tasks Undertaken
Day-to-day management/administration/reporting	<ol style="list-style-type: none"> 1. Development and producing official forms of the CPTF of Ukraine; 2. Bank imprest account established; 3. Provided relevant support for five PCU consultants travel to Ukraine (S.Gollasch, S.Raaymakers, M.Campbell, O.Khalimonov, A.Ah Poe). 4. Equipment for DS bought.
Organisation of CPTF meetings	<ol style="list-style-type: none"> 1. Five CPTF meetings held; 2. CPTF meetings' Protocols prepared.
GPTF related activities	<ol style="list-style-type: none"> 1. Participation in three GPTF meetings; 2. Participation of CFP of Ukraine (Mr. V. Rabotnyov) in the Int. GEF Conference, Budapest, October 2000.

Activity	Tasks Undertaken
Communication/Awareness Raising activities	<ol style="list-style-type: none"> 1. Article by S Limanchuk in the newspaper “Moryak of Ukraine” (№№ 39, 40, September 2000); 2. Article by V. Torsky and A. Sagaidak in the journal “Ports of Ukraine” (№ 5, October 2000); 3. Participation in the Int. Symposium: The Black Sea Ecological Problems (speaker - Mr. V. Rabotnyov); 4. Short-term Local Consultant prepared a typical lecture under Activity 2.5 (c): Awareness-raising of the ballast water issue in High and Secondary Education. 5. GloBallast posters translated and prepared for publication; 6. Numerous publications on BW problem in national and Odessa mass-media about 1st Black Sea Conference on BWM and control.
Risk Assessment activities, including collection of ballast water reporting forms and data management.	<ol style="list-style-type: none"> 1. Provided necessary help to S. Gollasch, IMO consultant, in collecting data on ballast water load in ports of Ukraine. 2. Risk Assessment Team is established and prepared to obtain necessary training
Port Baseline Survey activities.	<ol style="list-style-type: none"> 1. Draft contract with Odessa Sea Trade Port (Odessa STP) concerning hiring of the venue for port laboratory developed; 2. Participation in the S. Africa training (Port Survey Training, Saldanha, 17-23 April 2001, prof. Yuvenaly Zaitsev, National Academy of Sciences of Ukraine, and Mr. Mykola Pavlenko, Ministry of Ecology and Natural Resources of Ukraine); 3. Prepared and started Port Baseline Survey in Odessa port. Development of Port Baseline Survey Sampling Plan with Dr. Marnie Campbell, PCU consultant. 4. First phase of Survey passed.
Education/Training activities.	<ol style="list-style-type: none"> 1. Web-design courses for Lead Agency staff taken. Web-site to be established in January 2002.
Legal activities.	<ol style="list-style-type: none"> 1. LLC contract signed and LLC provided with necessary help from Lead Agency. 2. Participation in preparation of LLC report. 3. Participation and presentation of LLC report in Malmo meeting.
Progress with National Ballast Water Management Plan	<ol style="list-style-type: none"> 1. NWPU approved on 22 April, 2001; 2. NWPU amendments prepared in a view of GloBallast Phase II.
Compliance Monitoring and Enforcement activities, including ballast water sampling.	<ol style="list-style-type: none"> 1. CME contacts established according to Mr. Raaymakers message.
Regional Cooperation and Replication activities.	<ol style="list-style-type: none"> 1. Information letters about the problem of unwanted marine species and with propositions to cooperate with Odessa DS sent to Marine Administrations of Black Sea countries and to international regional organizations. 2. Tour of GloBallast consultant (O.Khalimonov) and CFPA (S.Limanchuk) to Bulgaria and Romania (1-6 July, 2001). 3. Tour of GloBallast consultant (O.Khalimonov) and CFPA (S.Limanchuk) to Russia and Georgia (July, September, 2001). 4. 1st Regional Conference on BW Management and Control for Black Sea countries held in October 10-12, 2001. 5. Conference Report prepared and disseminated via internet.

Activity	Tasks Undertaken
Progress with national contributions to the programme/self financing activities.	<ol style="list-style-type: none"> 1. In-country Communication Workshop to develop National Communication Plan held; 2. Development of the first version of NWPU while 2nd and 3rd CPTF meetings; 3. Organization of the seminar on the problem of unwanted marine species for marine science community of Odessa; 4. Collecting data on national legislation; 5. Provided office venue and furniture for the CFPA; 6. Shipping industry (association of ports of Ukraine, association of pilots of Ukraine, association of shipowners of Ukraine) involved to the 1st Black Sea Regional Conference on Ballast Water Management and Control (10 to 12 October 2001); 7. Articles and video reports in national / local mass-media prepared.
Country-specific activities under National Workplan, not covered by Global PIP (add rows if necessary).	<ol style="list-style-type: none"> 1. Propositions of the scientists of Ukraine concerning ballast water treatment collected. 2. Interdepartmental meeting (port authorities, shipping companies, classification societies, marine science community) on problems of sea pollution by ballast waters hold on May 29, 2000 in Odessa.
Other duties assigned by Country Focal Point/ PCU	<ol style="list-style-type: none"> 1. Provided office venue and equipment for the CFPA.
Other/Miscellaneous	<ol style="list-style-type: none"> 1. Translation of PCU documents, final draft of NWPU into Russian (for the need of the CPTF of Ukraine); 2. Translation of conference materials

Agenda Item 4: Ballast Water Risk Assessment

Background

All Pilot Countries were briefed on the forthcoming Ballast Water Risk Assessment at the 2nd GPTF meeting in December 2000 and the draft ToR were circulated to all members of the GPTF for review and comment, before finalization. The ToR are attached again for information/reference.

In July 2001 the PCU issued an invitation to tender to undertake the Ballast Water Risk Assessments to seven companies as follows:

- CSIRO-CRIMP (Australian institute)
- SERC (US institute)
- DNV (Norwegian company)
- DENIS PATERSON AND ASSOCIATES (independent consultant)
- URS (US company with global offices)
- LING (Lithuanian, Irish, Norwegian, German consortium)
- NIO (Indian institute)

Tenders were received from DNV, URS, LING and NIO.

In identifying suitable consultants to invite to tender, all GloBallast Pilot Countries were requested to advise the GloBallast PCU of suggestions, bearing in mind the Selection Criteria in the ToR.

A four person technical evaluation panel was formed comprising the GloBallast Chief Technical Adviser (Dandu Pughiuc) and Technical Adviser (Steve Raaymakers) plus two independent external evaluators (Mr Tim Wilkins from INTERTANKO and Mr Iain Chadwick from OCIMF).

Each panel member evaluated the four tenders received against a uniform set of Selection Criteria and completed a standard Tender Evaluation Form. Total price was not assessed and the score was set at zero as the budget was set at US\$250,000 and provided to the tenderer's prior to tendering. The evaluation was based primarily on the technical ability of the tenders to meet the ToR, within the available budget. There was unanimous agreement amongst the panel that URS was the winning tender.

The PCU progressed the risk assessment consultancy to the point of contract commencement but was delayed by IMO administration. This has caused a significant 'domino-effect' delay to the whole programme. IMO approval has now been received, and the lead risk assessment consultant (Dr Rob Hilliard) will brief all parties with a detailed presentation.

Action Required

CFP/CFP-A in each country, through CPTF, to ensure all available data as listed below is compiled and ready for provision to the consultants during their first country visits later this year.

- Copies of all IMO Ballast Water Reporting Forms collected for the Demonstration Site to date.
- The nature and content of any databases already established at the Demonstration Site for the IMO Ballast Water Reporting Forms.
- Any other data on ballasting/de-ballasting patterns in and around the port, including locations, times, frequencies and volumes.
- All available shipping data, particularly on where ships arrive from (source ports) and depart to (destination ports).
- All available data on the distribution of environmental resources in and around the port, including any existing coastal resource atlases and Geographic Information Systems (GIS).
- All available data on physical, chemical and biological conditions in and around the port.
- All available data on known introduced marine species in and around the port, including the results to date from the Port Baseline Surveys.

CFP/CFP-A in each country, through CPTF, to identify and assemble in-country risk-assessment team comprising personnel from port authority, maritime administration, environment administration and/or marine scientists (up to 10 people) to work with the risk assessment consultants, receive training in the risk assessment methodology and to conduct the risk assessments in future. This should include identification of a lead agency and lead person for the risk assessment who will be responsible for housing, operating and maintaining the associated computer hardware, software and databases.

CFP/CFP-A in each country to provide all necessary assistance to the risk assessment consultants in arranging their country visits and in-country activities.

Consultants' Terms of Reference

Activity 3.1: Ballast Water Risk Assessments 6 Demonstration Sites

1. Introduction & background

The International Maritime Organization (IMO), with funding provided by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP), has initiated the Global Ballast Water Management Programme (GloBallast).

This programme is aimed at reducing the transfer of harmful marine species in ships' ballast water, by assisting developing countries to implement existing IMO voluntary guidelines on ballast water management (IMO Assembly Resolution A.868(20)), and to prepare for the anticipated introduction of an international legal instrument regulating ballast water management currently being developed by IMO member countries.

The programme aims to achieve this by providing technical assistance, capacity building and institutional strengthening to remove barriers to effective ballast water management arrangements in six initial demonstration sites. These six sites are Sepetiba, Brazil; Dalian, China; Mumbai, India; Kharg Island, Iran; Saldanha, South Africa and Odessa, Ukraine. The initial demonstration sites are intended to be representative of the six main developing regions of the world, as defined by GEF. These are respectively, South America, East Asia, South Asia, Middle East, Africa and Eastern Europe. As the programme proceeds it is intended to replicate these initial demonstration sites throughout each region.

2. The need for the risk assessments

The development objectives of the programme are to assist countries to implement the existing IMO voluntary ballast water management guidelines and to prepare for the introduction of a new international legal instrument on ballast water.

The current IMO ballast water management guidelines offer states significant flexibility in determining the nature and extent of their national ballast water management regimes. This flexibility is warranted given that nations are still experimenting with approaches. A port state may wish to apply its regime uniformly to all vessels which visit, or it may wish to attempt to assess the relative risk of vessels to valuable resources and apply the regime selectively to those which are deemed of highest risk.

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

Some nations are experimenting with systems to allow more selective applicability based upon voyage-specific risk assessments because this approach offers to reduce the numbers of vessels subject to ballast water controls and monitoring. The prospect of reducing the numbers of ships to which the program applies is especially attractive to nations that wish to eliminate introductions of target organisms such as toxic dinoflagellates. 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 port state and its

effectiveness depends on the quality of the information supporting it. The approach may also leave the country/port vulnerable to unknown risks from non-target organisms.

For countries/ports which choose the selective approach, it will be essential to establish an organized means of evaluating the potential risk posed by each vessel entering their port, through a Decision Support System (DSS). Only in this way can they take the most appropriate decision regarding any required action concerning that vessels' ballast water discharge. The DSS is a management system that provides a mechanism for assessing all available information relating to individual vessels and their individual management of ballast water so that, based upon assessed risk, the appropriate course of action can be taken.

Before a pilot country decides on whether to adopt the 'blanket' (i.e. all vessels) approach or to target specific, identified high risk vessels only, a general, first-past risk assessment needs to be carried out. This should look at shipping arrival patterns and identify the source ports from which ballast water is imported. Once these are identified, source port/discharge port environmental comparisons should be carried out to give a preliminary indication of overall risk. This will greatly assist the port state to assess which approach to take.

The GloBallast programme, under Activity 3.1; will support these initial , 'first-past' risk assessments as a consultancy on contract to the PCU. This is important for establishing 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. These will differ from site to site, and will determine the types of management responses that are required.

The PCU risk assessment consultants, in conducting the risk assessment in each pilot country, will work with and train country counterpart(s) and include them in the study process as part of the capacity building objectives of the programme, so as to allow each country to undertake its own risk assessments in future.

3. Scope of the risk assessments

A Risk Assessment will be undertaken for each of the ports of:

- Sepetiba, Brazil;
- Dalian, China;
- Mumbai, India;
- Kharg Island, Iran;
- Saldanha, South Africa and
- Odessa, Ukraine.

The Risk Assessments will apply to all ship movements into and out of these ports based on shipping data for the last 10 years (or longer if available).

4. Services required & tasks to be undertaken

The GloBallast PCU requires a suitably qualified and experienced consultancy team to undertake the ballast water risk assessments. The consultancy team will undertake the following Tasks, for each demonstration site:

Task 1: Resource Mapping

Identify, describe and map on Geographic Information System (GIS) all coastal and marine resources (biological, social/cultural and commercial) in and around the demonstration site that might be impacted by introduced marine species.

Task 2: De-ballasting/Ballasting Patterns

Characterise, describe and map (on GIS) de-ballasting and ballasting patterns in and around the ports including locations, times, frequencies and volumes of ballast water discharges and uptakes.

Task 3: Identify Source Ports

Identify all ports/locations from which ballast water is imported (source ports).

Task 4: Identify Destination Ports

Identify all ports/locations to which ballast water is exported (destination ports).

Task 5: Database - IMO Ballast Water Reporting Form

Establish a database at the nominated in-country agency for the efficient ongoing collection, management and analysis of the data collected at the demonstration site according to the standard IMO Ballast Water Reporting Form, and the data referred to under Tasks 2, 3 and 4.

Task 6: Environmental Parameters

Characterise as far as possible from existing data, the physical, chemical and biological environments for both the demonstration site and each of its source and destination ports.

Task 7: Environmental Similarity Analysis

Using the data from Task 6 and an appropriate multivariate environmental similarity analysis programme, develop environmental similarity matrices and indices to compare each demonstration site with each of its source ports and destination ports, as the basis for the risk assessment.

Task 8: High Risk Species

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 the demonstration site, and any high risk species present at the demonstration site that might be exported to a destination port.

Task 9: Risk Assessment

For each demonstration site, assess and describe as far as possible, the risk profile for invasive marine species being both introduced from its set of source ports and exported to its set of destination ports, and identify the highest risk source and destination ports, using the outputs of Tasks 1 to 8 and based on the environmental similarity indices developed under Task 7.

Task 10: Training & Capacity Building

While undertaking the risk assessment, provide training and capacity building to the in-country risk assessment team (up to 10 people) in the risk assessment methodology, including use of database established under Task 5 and the multivariate environmental similarity analysis programme established under Task 7.

Task 11: Information Gaps

Identify any information gaps that limit the ability to undertake these Tasks and recommend management actions to address these gaps.

5. Methods to be used

The consultants should clearly outline in their Tender how each Task will be achieved. These should comply with but are not necessarily restricted to the following:

Site Visits:

The consultants will undertake an initial one week (5 working days) visit to each demonstration site to hold discussions with the CFP, CFP-A, port authority, maritime administration, environment administration, fisheries/marine resources administration, marine science community and shipping industry, to identify and obtain information and data for the various Tasks, establish a working relationship with the in-country risk assessment team, conduct a site familiarisation to the demonstration site (port) and to identify information gaps.

The consultants will undertake second 8 to 10 working day visit to each demonstration to install the GIS, database and multivariate environmental similarity analysis programme and to provide training and capacity building in their use and the overall risk assessment methodology to the in-country risk assessment team.

Coordination:

The consultants will maintain close consultation and cooperation with the PCU Technical Adviser (TA), who will manage this consultancy, and with the Country Focal Point (CFP) and CFP Assistant (CFP-A) in each pilot country, who provide the primary contact point for all in-country activities and for accessing in-country information and data.

Tasks 1& 2:

This will be restricted existing data only, field surveys are not provided for in the budget. The CFP and/or CFP-A will compile as much existing information as possible in relation to Tasks 1 and 2 to provide to the consultants.

The consultants should identify and evaluate any existing in-country databases and GIS for use in these Tasks. The GIS should be tailored to suit the country's circumstances while ensuring user-friendliness and consistency across all sites.

Tasks 3 & 4:

This will be restricted to existing data only. The CFP and/or CFP-A will compile as much existing information as possible in relation to Tasks 3 and 4 to provide to the consultants. However, the consultants should identify potential additional sources of data for these two tasks, including records held by port authorities, shipping agents, customs agencies and similar, that may not have been identified/compiled by the CFP/CFP-A.

Task 5:

The consultants should identify and evaluate any existing in-country databases for use in this Task. The database should be tailored to suit the country's circumstances while ensuring user-friendliness, consistency with the IMO Ballast Water Record Form and consistency across all sites.

Task 6:

This will be based on existing data only. The consultants should clearly outline in their Tender what parameters will be used, and how the data for these parameters will be collected from the source and destination ports.

Task 7:

The consultants should clearly outline in their Tender what multivariate environmental similarity analysis programme will be used, and how it will be used.

Task 8:

The consultants should clearly outline in their Tender how this Task will be achieved, including how relevant national and international invasive marine species records and databases will be accessed.

Task 9:

The consultants should clearly outline in their Tender how the outputs of Tasks 1 to 8, and in particular Task 4, will be used to produce the risk profiles for each demonstration site, and what form these will take.

Task 10 & 11:

The consultants should clearly outline in their Tender how these Tasks will be achieved.

6. Time frame, end product and reporting procedure

- The risk assessments will be conducted for each of the six demonstration sites in the second half of 2001 and into the first half of 2002. A detailed workplan and timeline will be proposed by the consultant in their Tender and the precise timing for each site will be refined through consultation with each country, once the contract is awarded.
- The end product of this consultancy will be the establishment of the databases, GIS's, multivariate environmental similarity analysis programmes and risk assessment outputs at each demonstration site, including training in their use.
- There will also be a report for each demonstration site which addresses as fully as possible all of the Tasks under section 4, consistent with all parts of these Terms of Reference and the consultancy contract. Results presented should be supported by maps, figures, diagrams and tables here useful.
- Each report should be submitted to the PCU in draft form first, for review by the PCU and the demonstration site risk assessment team. The final report for each site will be submitted to the PCU within one month of the consultants receiving review comments.
- The PCU may arrange for peer review of the draft reports, to ensure scientific credibility and quality control.
- The final reports should be submitted to the PCU in both hard-copy and electronic form, including figures, images and data, ready for publication. The PCU will publish each final report in both English and the main language of the pilot country (if different).

7. Selection criteria

- Cost effectiveness.
- Demonstrated record of *meeting deadlines* and *completing tasks within budget*.
- Extensive experience with the issue of *introduced marine species*.
- Extensive experience with the issue of *ballast water*.
- Extensive experience with *risk assessment* in relation to introduced marine species and ballast water.
- Demonstrated abilities in *literature search and review* and in identifying and obtaining reports, publications, information and data from sometimes obscure and difficult sources.

- Demonstrated skills in *information analysis and synthesis*.
- Experience in working in *developing countries*.
- Experience in training and *capacity building* in developing countries.
- Ability of the proposed *methods and workplan* to complete all Tasks satisfactorily.

8. Content of tenders

The Tender should include the following:

- Total lump-sum price in US\$D.
- Detailed cost break-down for all Tasks in US\$ (NB. Total budget must not exceed US\$250,000 and cost-effectiveness and competitiveness within this budget forms a primary selection criteria).
- Detailed workplan and provisional timeline for all Tasks outlined under section 4 above.
- Details of the methods proposed to achieve all Tasks, framed against each Task under section 4 above and consistent with section 5 above.
- CV's of each consultancy team member (maximum of 3 pages per person) (consultancy teams should be kept as small as possible).
- Details of the consultancy's professional indemnity and liability insurance and quality assurance procedures.

Further information

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Agenda Item 5: NGO/Industry Information Papers

INTERTANKO

INTERTANKO

Progress and Activities during 2001



Story of the Alternative Solution...INTERTANKO 2001

- *MARTOB Project*
 - *Temp., de-oxygenation, UV/US combo., ozone, oxidice and hurdle technology*
 - *Move towards the testing stage, 2002*
 - *Presentation at MEPC (IMO)*
 - *Shipboard trials*

Ballast Water Exchange

- *Teekay Concept*
 - *Natural ballast water exchange*
 - *Testing of new concepts on members vessels...legislative drawback & Catch 22!!*
- *Developments on new buildings*
 - *Piping and pumping arrangements, enhanced tank design etc.*
 - *Enhancing safety and environmental effectiveness*

Living with the Regulations

- *Clarification, explanation, illustration, demonstration...frustration!*
- *Australian DSS*
 - *AMSA/AQIS website has been essential*

Working with the Regulators

- *Development of Standards for IMO – Ballast Water Correspondence Group Work*
- *US initiatives going the same way*
 - *Notice for Comments on 'Standards'*
 - *Notice for Comments on 'On-board trials'*
- *Europe?*
 - *The Marine Strategy*

and finally...

*remember that a solution to this
problem could be worth
USD694million a year*

USD30.5billion

IUCN

GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

IUCN - the World Conservation Union

Vision: *A just world that values and conserves nature*

Mission Statement:

To influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and ensure that any use of nature is equitable and ecologically sustainable.



GloBallast GEF/UNDP/IMO Project
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- ▲ *Headquarters in Switzerland.*
- ▲ *7 Regional Offices; 21 Country Offices and 14 Project Offices, based mostly in developing countries*
- ▲ *As a membership organisation, IUCN acts as a strong voice for states, governments and NGO's.*
- ▲ *6 expert Commissions – global network of 900 technical, scientific and policy experts make a massive volunteer contribution to conservation*
 - ▲ *(CEM; EC; EE; SP; EL; WCPA; WCD)*



GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

IUCN in the Regional Context:

- ▲ *IUCN's Asian operations cater for approx. half the Unions activities.*
- ▲ *ARD – Management body of the IUCN Secretariat*
- ▲ *ARO (Bangkok) – support to country offices and regional programmes*
- ▲ *8 country offices (Bangladesh; Cambodia; Lao PDR; Nepal; Pakistan; Sri Lanka; Thailand and Vietnam)*



GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

- ▲ ***IUCN Asian Regional Coastal and Marine Programme (ARCAM)***
 - ▲ *To assure policy and technical linkages to global partners and debates;*
 - ▲ *To develop strategic alliances at the regional level;*
 - ▲ *To organise regional networks around key programme technical issues*



GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

ARCAM Programme – 6 thematic areas:

- ▲ *Critical Ecosystems*
- ▲ *Integrated Coastal Zone Management*
- ▲ *Sustainable Use of Coastal and Marine Resources*
- ▲ *Marine Protected Areas*
- ▲ *Species – Threatened, Migratory and Invasives*
- ▲ *Information and Awareness*

Complementary and will utilise potential inter-linkages between thematic areas and synergies with member-partnership arrangements.



GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

- ▲ *The ARCAM recognises the severity of the rapid spread of Marine Alien Invasives*
- ▲ *Crowns of Thorns Star-fish*
- ▲ *Increased Global Trade (e.g. Aquarium) and introduction of species in ballast water*
- ▲ *Controlling marine invasives thereby becomes not only a national concern but requires collaboration between countries in the region regarding management strategies and mitigation measures*



GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

ARCAM Focus on Invasives:

- ▲ *Development of a 'black list' of key invasives*
- ▲ *Assistance to Risk Assessment, including development initiatives*
- ▲ *Development and Implementation of regional invasive species action plans*
- ▲ *IUCN Species Programme/GISP/AIS Specialist Group*



GloBallast GEF/UNDP/IMO Project
 3rd Global Project Task Force Meeting (GPTF) Meeting: Goa -India,
 16th - 18th January 2002

Regional Biodiversity Programme, Asia

Established in 1996 to assist with the implementation of the CBD in Asia

- ▲ *In situ-conservation (Article 8)*

AIS – the problem lies largely unquantified and poorly documented, it is increasingly being recognised that alien invasive species are having a profound impact on Asia's native biodiversity. The RBP is focusing attention on enhancing capacity to identify, prevent and control these species



GloBallast GEF/UNDP/IMO Project
3rd Global Project Task Force Meeting (GPTF) Meeting: Goa –India,
16th – 18th January 2002

How may IUCN assist with Globallast?

- ▲ ***Information Needs – large number of countries etc involved in various aspects of this issue -however there appears to be a lack of coordination***
- ▲ ***Dissemination of Information***
- ▲ ***Technical Research***
- ▲ ***Educational Materials - Establishment of Education/Communications networks e.g links to IUCN AIS Specialist Group web-site***



GloBallast GEF/UNDP/IMO Project
3rd Global Project Task Force Meeting (GPTF) Meeting: Goa –India,
16th – 18th January 2002

IUCN's objectives in attending this meeting:

- ▲ ***Addressing the extinction crisis is the prime mandate of IUCN. We can best deal with issues of this kind by working in partner organisations therefore we are keen to maintain a working relationship with IMO in this matter.***
- ▲ ***We would like to show our support to initiatives such as Globallast and would like to lend our support and willingness to participate in future programme planning and development***
- ▲ ***IUCN supports this Intelligent approach to mutual problem solving and would like to extend the support of its network of 40 + regional and country offices located in virtually every region where marine AIS problems are of concern.***



Agenda Item 6: 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, need to be reflected and supported by written agreements. This will provide a legal basis and mandate for cooperation between the executing agency (IMO) and the Lead Agencies in each participating country. This is most effectively and efficiently achieved through a simple Memorandum of Understanding (MoU) or Memorandum of Agreement (MoA) between IMO and the Government/Lead Agency of each participating country.

Accordingly, approximately two years ago during the preparatory phases of the project, such a document was drafted by IMO for consideration by governments. This MoU has now been amended to reflect feedback received from some participating countries and a final draft is now available (Attachment I) for consideration by participating countries for signing. The participants who did not conclude yet their MoUs are encouraged to review the draft and propose further amendments that would reflect the specific situation in their respective countries.

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 each participating country need to review the final draft MoU and progress to signing it in conjunction with IMO.

Final Draft MoU

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 7: Port Baseline Surveys

Background

It is not possible to manage and control introduced marine species unless you know *what they are* and *where they are*. The IMO Guidelines (A.868(20)) encourage Port States to undertake biological surveys and monitoring in their ports. The results can be used to control introduced species and to advise ships of areas or times to be avoided in taking on ballast, so as to minimise the uptake and transfer of these species.

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 port baseline surveys.

It is highly desirable that port surveys for introduced marine species 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 a global industry such as shipping and the transboundary movement of species, which requires a high level of international cooperation and coordination.

Fortunately for GloBallast, the Australian Centre for Research on Introduced Marine Pests (CRIMP) developed standard port survey protocols in 1996. They have been tried and tested in Australia since then, during which 25 ports have been surveyed for introduced marine species. The protocols were revised and republished this year (Hewitt & Martin 2001).

GloBallast selected the CRIMP Protocols for application at its six Demonstration Sites, on a trial basis. They will be considered for possible adaptation as international port survey protocols (see below). They have also been adopted by the University of Wales for UK ports, the Smithsonian Environmental Research Centre at various locations in the United States and the New Zealand Ministry of Fisheries for a comprehensive series of surveys throughout NZ.

Status

The first port survey was conducted at Saldanha, South Africa in April 2001. This included training marine scientists from the other Pilot Countries. Since April the GloBallast Port Survey Coordinator, Dr Marnie Campbell, visited the other 5 Pilot Countries to provide further training to each country's port survey team, and to assist with finalising their survey plans and sampling designs. She then visited each country a second time to assist and advise during the actual field sampling.

By the end of November all six Pilot Countries had completed the field-sampling component of their surveys. This represents a major practical achievement for the programme and a material implementation of an important element of the IMO ballast water Guidelines.

The establishment by GloBallast of biological baselines and port survey capabilities at six major ports in the main developing regions of the world represents a positive step forward in global understanding of invasive marines species. When linked with similar surveys being conducted in developed

countries, they provide an important building block for a much-needed global early-warning system for detecting, tracking, recording and reporting marine bio-invasions.

Next Stages

Each country now needs to complete sample identification, analysis and reporting. Final reports for each of the surveys will be published by GloBallast.

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, the PCU is planning to convene the *1st International Port Survey Workshop* in July 2002. This would 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 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.

Subject to agreement from Brazil, one possible 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 by the PCU for July 2002 (see Agenda Item 9).

Action Required

Each country to complete sample identification, analysis and reporting.

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 neighboring 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 to organize the *1st International Port Survey Workshop* for July 2002.

Agenda Item 8: Ballast Water Management and Control Training Package

Background

Training and education was identified in the IMO Ballast Water Guidelines as one of the most effective ways to minimize the introduction of harmful aquatic organisms and pathogens. The latest version of the “Draft Convention for the Control and Management of Ships’ Ballast Water and Sediments” also requires that officers and crew engaged in ballast water management and control be properly trained in this respect.

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. TSC is a training network in the field of coastal and ocean management with extensive experience in using the Train-X methodology. The programme, which is funded by the GEF, has 14 training centres worldwide with two of the most efficient course developing units located in two of the GloBallast Pilot Countries – Brazil and South Africa. 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:

- Enhanced responsiveness to current and future manpower and training needs of GloBallast towards the implementation of IMO Guidelines and the anticipated Ballast Water Convention.
- 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.
- 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 were 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.

On the occasion of his visit to Brazil the GloBallast CTA had a two day meeting with the TSC Coordinator, Ms Stella Vallejo, and the TSC/Brazil staff to review the work done so far and plan for the next stages of the course developing process. During the two working sessions the following activities have been carried out:

- Revision of the proposal presented by TSC/Brazil for the development of the training modules of the course.
- Evaluation of the information available for the development of the modules and identification of relevant contacts with port authorities and other specialists.
- Identification of the “target populations” for the various modules, including key characteristics, responsibilities and experience.
- Discussions on the problem analysis and job analysis questionnaires developed by TSC Brazil.
- Redrafting the plan of activities in accordance with the outcome of the discussions.
- Establishment of the necessary administrative arrangements for further implementation of the project.

It was unanimously agreed that 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 GloBallast Programme. To ensure consistency with the rest of the GloBallast activity the PCU provided copies of the TOR and reports on the sub-projects developed to date and advised the CFPs to maintain permanent links with the course developers in order to update them on latest developments.

It was also agreed that each course development unit would undertake a preliminary study that includes population analysis and problem analysis according to the Train-X methodology. Both course development units will undertake a common job analysis and design of curriculum during a coordination meeting provisionally scheduled for March 2002 in Brazil. In order to avoid duplication the two units will discuss and agree on the modules to be developed by each unit and other collateral tasks related to the completion of the training package. Each unit will develop the design of the assigned modules and materials independently and TSC/Benguela Current will assemble the modules in the final training package. 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.

Action Required

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

- GloBallast PCU together with TSC New York to organise the coordination meeting for the development of the job analysis and design of curriculum.
- CFPs in cooperation with the course development team leaders to identify the Subject Matter Experts (SME) required for the development of the various modules.
- 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.
- Pilot Countries' Governments to be encouraged to ensure that their marine training and education organizations include ballast water management and control procedures in their syllabus.
- Pilot Countries' Governments to be encouraged to include knowledge of duties regarding the control of pollution of the sea by harmful aquatic organisms and pathogens in their training requirements for certificates.
- The meeting is invited to comment on the Education and Training activity and to provide advice as appropriate.

Agenda Item 9: 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 provisionally re-scheduled for late 2003 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.

Key Elements of a CME System

Each of the six Pilot Countries is in the process of establishing ballast water management (BWM) measures for their Demonstration Sites consistent with IMO Guidelines. To ensure that these measures are effective it is essential to ascertain whether a vessel has met the requirements, to obtain relevant information about the BWM of the respective vessel and to have the ability to ensure that the vessel complies with the established requirements.

An examination of existing CME systems used worldwide resulted in the following elements that should be considered prior to the establishment of a national CME:

- Requirement for ships to collect and record information about their BWM practices (i.e. uptake, management enroute and discharge);
- Means for ships to transmit this information to the Port State's BWM regulatory authority and receive directions from them;
- Provision for examination/auditing of the ships' official log books or other official records to ascertain compliance with the BWM requirements of the Port State;
- Ability by the appropriate authority to take ballast water and sediment samples and carry out any necessary testing;

- Legal provision for ‘enforcement’, where necessary, for non-compliance with the required BWM requirements; and
- Requirement for notification of arrangements to IMO.

A CME System should also satisfy the following criteria:

- Be safe for all personnel involved;
- Be environmentally acceptable;
- Be practicable;
- Allow for the introduction of new ballast water treatment options and other relevant technologies;
- Be flexible enough to be adapted to local existing systems and conditions including accommodation of in-country research initiatives;
- Be capable of expansion to allow for future additional CME considerations;
- Not be unnecessarily costly, inconvenient or cause undue delay to shipping;
- Be scientifically justifiable; and
- Be transparent and accountable.

Benefits for the GloBallast Programme

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 the 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.

Action Required

The scoping study has been completed in late 2001 and is now available for all the Pilot Countries.

- The Pilot Countries are invited to comment on the scoping study and to adapt the suggested approaches to their needs and national requirements;

- The Pilot Countries should familiarize their port authorities with the components of the CME as described in the IMO Guidelines, Resolution A.868(20), and pave the way for the implementation of the anticipated Convention;
- As sampling procedures represent an important component of the CME system, PCU should organize an international workshop to debate this topic and for participants to share their experience in the experimentation of various techniques worldwide (see Agenda item 7);
- PCU should initiate the development of a generic CME System to be tailored by each Pilot Country to its needs after the adoption of the future Convention.

Agenda Item 9(b): Compliance Monitoring and Enforcement – Ballast Water Sampling

Background

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, the PCU proposes to convene the *1st International Ballast Water Sampling Workshop* in July 2002. This would 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 would 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.

Subject to agreement from Brazil, one possible 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 by the PCU for July 2002 (see Agenda Item 7).

Action Required

Each country to consider this proposal and provide comments to the PCU.

If countries agree, PCU to organize the *1st International Ballast Water Sampling Workshop* for July 2002.

Agenda Item 10: Legislation & Regulations

Background

One of the main development objectives of the GloBallast Programme is to assist countries in implementing the IMO Ballast Water Guidelines adopted as Assembly Resolution A.868(20). Section 3 of these guidelines provides that member States shall determine the extent to which they apply within the State's jurisdiction and section 11.2 of the guidelines provides that member States have the right to manage ballast water by national legislation. It therefore follows that the Programme needs to assist countries to review and develop their regulatory regimes with a view to implementing the Guidelines.

In addition, IMO Member States are currently developing an international legal instrument, for the regulation of ballast water. It is anticipated that the text of this new legal instrument will be ready to be considered by a diplomatic conference of IMO member States in late 2003. The second main development objective of the GloBallast Programme is to assist countries to prepare for the implementation of the new legal instrument. It therefore follows that the Programme needs to assist countries to review and prepare their regulatory regimes with a view to implementing the new legal instrument.

The GloBallast Programme provides for this assistance through Activity 4.3: Legislation and Regulations. Under this Activity US\$25,000 is available to each of the six Pilot Countries and US\$30,000 is available for global advice and coordination.

Activity Description

The Legislative Review Project began in February 2001, with the hiring of a Lead Legal Consultant. The Country Focal Points (CFP) in the six Pilot Countries had primary responsibility for identifying and hiring Local Legal Consultants (LLCs). The LLCs prepared detailed legislative reviews, recommendations and, where appropriate, draft legislation based on a research design prepared by the Lead Consultant, who also provided ongoing review and advice.

Once the six national legislative reviews were completed, a two day intensive Workshop was held in early November 2001. The Workshop was organized and facilitated by the Lead Consultant and hosted by the World Maritime University at its premises in Malmö, Sweden. The Workshop had 16 participants: the LLCs and their CFPs, a member of the GloBallast Programme Co-ordination Unit, and an Observer from the MEPC Ballast Water Working Group working on the question of standards. The Workshop was designed to provide an opportunity for the Project's legal team and CFPs to compare and exchange experiences and ideas in order to develop recommendations on how to address the problem of ballast water transfer of harmful aquatic organisms and pathogens. Each of the LLCs and their CFPs presented and commented on their findings, recommendations and draft legislation. These presentations were followed by lengthy discussion and debate on a number of core strategic issues, which led to the development of recommendations on regulatory design options and practices.

The outcome of the Workshop discussion will be reflected in the Final Project Report of the Lead Consultant.

The final phase of the Project is close to completion and involves a Final Report comprising the full text of all six national legislative reviews, background legal analysis and commentary on key legal instruments that relate to national implementation of both the Guidelines and the future IMO Convention, recommendations and model legislation. The Final Report will be lengthy and a decision was made to deal with the question of publication format and dissemination as a separate matter.

The Project performed several overlapping and interdependent functions including:

- data collection (creating a legal baseline or survey) to assist the six Pilot Countries and other countries in each region;
- development and analysis of regulatory design options for the Pilot and other countries to assist in implementing various facets of the IMO Guidelines. The legislative review will also be a necessary step for any country in order to effectively implement the anticipated IMO Convention for the Control and Management of Ships' Ballast Water and Sediments;
- building legal expertise and capacity in the six Pilot Countries and, in some cases, the region. This objective was achieved through the use of the locally-based Legal Consultants who worked with the CFPs and consulted with other potentially interested agencies and interests. The project served to develop and transfer legal knowledge and cultivate locally-based legal expertise. A number of the LLCs are also academics and respected researchers affiliated with educational and research institutions and will, in turn, share these ideas and information with colleagues and students;
- generation of new knowledge and ideas for further research and broader comparisons regarding legal and administrative systems, particularly amongst countries that are moving to the integrated management approach to ocean related activities. This exchange and comparison began with the Malmö Workshop.

The Project developed a number of Best Practices recommendations and draft legislation that attempts to respond to this complex issue. Among the most important recommendations are the following:

- Each port should be encouraged to develop a strategic plan for managing its response to the problem of harmful aquatic organisms and pathogens that may be transported on ships either in ballast water or sediments or other parts of the ship (i.e., hull and equipment fouling). This can include protocols for necessary interagency and inter country communications (i.e. fisheries, quarantine etc.), laboratory testing, training for inspectors or others involved in rapid risk assessment, sediment disposal options, port surveys, data collection to identify organisms in the water that may be hazardous to others if taken up in ships' ballast water, contingency arrangements and possible eradication or containment strategies, in the event of an introduction;
- It is suggested that implementation of current flag State responsibilities to prevent the spread of harmful aquatic organisms will lay a strong foundation for the future convention. There is no potential conflict with the future convention created by voluntarily putting in place national requirements to begin to implement flag State responsibilities before the convention. These would include requiring vessels to develop and apply a ballast water management plan (perhaps on the basis of the INTERTANKO/ICS Model Ballast Water Management Plan) that can be adjusted, as appropriate, for the ship, if and when new technology becomes available, and relevant ballast water documentation and reports, crew training and precautionary uptake practices (called supplementary practices in the proposed convention). Once the technological solution is developed and the convention is in force, then the administrative and industry transition to implementing a certificate-based system will be relatively smooth;

- The agency identified for port–ship interaction, document filing and other communication should be in a position to do so efficiently with a minimum of delay or other administrative burden on ships. In particular, reporting to multiple agencies should be avoided. For example, consolidated or comprehensive reporting, ideally electronically, for quarantine, ballast water and other Facilitation Committee (FAL) documents is suggested. These agencies should ensure that any requirements are reported to IMO and, if possible, to pertinent industry databases. In addition the agency designated to carry out or to supervise the administration of inspections and other enforcement activities should seek, as much as possible, to do so on a whole ship basis with multi-skilled inspectors or co-ordinated teams to check for quarantine, ballast water, MARPOL related inspections, anti-fouling system monitoring and other port State control related inspections;
- Legislation requiring documentation and application of a ballast water management plan should recognize safety-related concerns for ships that may use mid-ocean exchange. In general, ports should not prohibit entry for vessels that do not have the requisite documentation or have not applied ballast water management. However, these vessels may be subject, if deemed necessary, to inspections and sampling and contingency requirements before permission is given to conduct deballasting operations and should be liable for any direct costs of these inspections (polluter pays basis). A compliance agreement option based on industry co-regulation should be available and encouraged for ships with a good history of accurate reporting and environmental protection;
- Current debate over ship safety and viability of mid-ocean exchange and standards for treatment suggests that national responses should avoid entrenching any particular treatment or management method in legislation, or at least provide for future alternative equally acceptable practices. A reference to the IMO Guidelines may be sufficient for these purposes in that the Guidelines contemplate alternative methods of treatment. This will also accommodate a future certificate based approach;
- States that are part of regional arrangements should work co-operatively to develop a regionally agreed approach, perhaps on a first port of call basis, to protect the marine ecosystem. Any regionally adopted approach should seek to ensure consistency with the Guidelines and the developing international convention.

Action Required

- PCU will take necessary action in accordance with the recommendations made by the GPTF for the publication of the Final Report as part of the GloBallast Monograph Series;
- PCU will prepare an INF document to be submitted to MEPC 47 on the outcome of the activity;
- The legislative reviews can be seen as case studies that provide solutions and ideas to respond to diverse legal, economic and administrative systems. Pilot Countries may use this response to promote further development of their national legislation and of the anticipated IMO Convention;
- The Pilot Countries are expected to disseminate the conclusion of the Legislative Review Project regionally with the aim of improving regulatory responses to the problem of ballast water transfer of harmful aquatic organisms and pathogens and to ensure a standardized approach;
- The Pilot Countries will continue with the cross-fertilization of ideas initiated during the Malmö Workshop by exchanging views and information in the GloBallast network.

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 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

The *1st Black Sea Conference on Ballast Water Management and Control* was held in Odessa, Ukraine from 10 to 12 October 2001. The Conference was organized by the Government of Ukraine and the GloBallast PCU and included engagement of a consultant with strong IMO credentials and regional familiarity (ex MED Director Mr Oleg Khalimonov). Some months prior to the Conference the IMO Secretary-General wrote to the Transport Ministers in all Black Sea Coastal States (Bulgaria, Georgia, Romania, Russian Federation, Turkey and Ukraine). This was followed-up with a visit to all countries by the Consultant and the Ukraine CFP-A. This strategy proved instrumental in securing highest level political support and official approval of the Regional Action Plan from all countries. The Conference was attended by all the Black Sea Coastal 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 the programme-related activities, and a review of the research and development aspects of the ballast water management and control in the region.

Substantial time was allocated to the national presentations by the Black Sea countries. Each of the presentations contained comprehensive data and statistics relevant to a specific country's maritime and environmental conditions as well as the 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 draft Plan was jointly developed by the Focal Points of the Black Sea countries, the GloBallast PCU and consultant and the Odessa Demonstration Site. 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 the regional cooperation utilizing the existing regional bodies, established under the Istanbul Commission and the GEF Black Sea Environment Programme.

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

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

- approved the RAP;
- requested the Istanbul Commission 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 extend the GloBallast activities in order to facilitate the introduction of the forthcoming Convention.

The PCU is now working to identify potential sources of funding for RAP implementation and preliminary discussions with the EU hold some promise.

Baltic Regional Workshop

The Baltic Sea countries of Estonia, Latvia, Lithuania, Poland and Baltic Russia are nominally included in the Eastern European Region of the GloBallast Programme. However, as they are separated from the Odessa Demonstration in the Black Sea by over 1,500 km of land they had not benefited from the programme. At a general invasive species workshop in Copenhagen in April 2001 several of these countries observed this fact and requested assistance from the GloBallast PCU.

The PCU was able to secure US\$27,000 from the IMO Technical Cooperation Fund to hold the *Baltic Regional Workshop on Ballast Water Management* in Tallinn, Estonia, from 22 to 24 October 2001. The Estonian Government provided significant organizational and logistical support for the workshop.

The Baltic Workshop had similar objectives and format to the Black Sea Conference, although it had more of a technical than a political focus. Another key difference was the presentation of practical project proposals by the participating countries and the presence of potential donors (Helsinki Commission, GEF Baltic Sea Regional Project, US State Department, EU, Germany and Sweden).

The Workshop adopted a resolution similar to that for the Black Sea and the PCU is now working to identify potential sources of funding for technical project implementation. Preliminary discussions with the EU and US State Department hold some promise.

Gulf Regional Conference

In March 2001 the PCU and Iran CFP made presentations to a meeting of ROPME member countries in Bahrain, which initiated regional interest. The PCU is now working with the I.R Iran and the ROPME Secretariat to hold the next Regional Conference for the Gulf (ROPME Sea Area) in Tehran in early/mid 2002.

The PCU and I.R. Iran are also working with the Gulf Area Oil Companies Mutual Aid Organization (GAOCMAO) to hold a regional ballast water seminar in Dubai in the last week of February 2002, which will be fully sponsored by the regional oil industry.

Other Regions

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). After nearly two years of the programme, the Pilot Countries now need to focus more on progressing regional replication.

The PCU has formed 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).

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.

Progress

To date, the following additional funding and support-in-kind has been secured by the PCU:

- Approx. US\$500,000 worth support-in-kind from the UN Division of Ocean Affairs and Law of the Sea to assist development of the Train-X ballast water management training modules.
- US\$24,000 in funds from the IMO Technical Cooperation Fund for the Baltic Regional Workshop on Ballast Water Management.
- Approx. US\$60,000 worth of support-in-kind from the international shipping industry and R&D community who covered their costs to present and participate in the 1st International Ballast Water Treatment R&D Symposium & Standards Workshop.
- Approx. US\$7,000 in staff-time from the World Maritime University for the Legislative Review project.
- Approx. US\$5,000 worth of support-in-kind from IMO to host the 1st International Ballast Water Treatment R&D Symposium & Standards Workshop.
- Approx. US\$2,500 in discount on ballast water training videos from Videotel for distribution to Pilot Countries.
- Approx. US\$1,000 in discount on publications from International Chamber of Shipping & INTERTANKO for distribution to Pilot Countries.
- Approx. US\$1,500 in travel support from the Global Invasive Species Programme (GISP) to allow participation in their Baltic Regional Workshop.
- The Government of Singapore and the shipping industry for participation in GPTF meetings.
- Support-in-kind from the Government of Estonia for the Baltic Regional Workshop.

Prospects

The following additional prospects have been identified to date:

- Potentially up to Euro 5 million for the Baltic Sea/ Black Sea/Eastern Europe from the EU.
- Potentially significant funding from the US State Department for the Eastern Baltic.
- Potentially significant funding from the GEF Baltic Sea Regional Project for the Baltic.
- Potentially US\$500,000 from APEC for Asia/Pacific.
- Potentially, an Associate Professional Officer (APO) to supplement PCU staff resources from Germany or Norway.

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

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

Agenda Item 13: TV Documentary

Background

During the design (PDF-B) phase of the GloBallast Programme the global lack of awareness about invasive marine species and the ballast water 'problem' was identified as perhaps the most significant barrier to effective implementation of ballast water control and management measures. Accordingly, one of the major 'barrier removal' activities of the Programme is an intensive effort in communication and awareness raising. Outputs to date include:

- The PCU web site.
- Production and global distribution of a brochure 'Stopping the Ballast Water Stowaways'.
- Production and global distribution of a set of three posters.
- Provision of the poster designs in Portuguese and Ukrainian to Brazil and Ukraine.
- Production of 7 issues of Ballast Water News (one per quarter), with a global hardcopy circulation of 15,000 plus posting on the GloBallast web site (<http://globallast.imo.org>).
- Making all awareness materials produced to date available globally as PDF files on the GloBallast website.
- Publishing a number of articles in specialist international publications (e.g. PEMSEA Tropical Coasts, Shipping World & Shipbuilder, Lloyds List).
- Giving lectures and seminars to a broad range of audiences at a number of events around the world.
- An extensive range of in-country communication activities under each Pilot Country's Communication Plan, including workshops, seminars, media coverage and production of country-specific awareness-raising materials.

Review of Effectiveness

A review of the effectiveness and client-satisfaction with the awareness materials produced to date was conducted by the PCU in 2001, through a stakeholder questionnaire, and significant positive feedback was received. A strategic review of the PCU's information Clearing House Mechanism (CHM) was also carried out through a consultancy in late 2001 and the review report will be received and considered in late January 2002. This is seen as being a major, core function of the PCU by most stakeholders.

Responses and requests for further information from various stakeholders surged in the second half of 2001 and it is clear that this effort has had a major impact in addressing the 'lack of awareness barrier.'

However, the target audience has been quite restricted to date, focussing on maritime administrations and the marine science, environmental and shipping communities. This focus has been intentional but as awareness amongst these sectors is now increasing it is time to widen the focus and target a much broader global audience, through use of the mass media, and in particular television. This in turn will greatly assist efforts to raise awareness at the political level as well.

It is considered that the most effective use of TV would be to secure partnership with a global cable network that specialises in natural history/environmental documentaries such as Discovery Channel or National Geographic. This would be a major 'coup' for the Programme.

Outline of the Documentary

The purpose of this documentary will be to:

- Raise global awareness about invasive marine species and the ballast water 'problem'.
- Promote the initiatives being carried out by GEF, UNDP, IMO, the Pilot Countries and the shipping industry to address this problem, through GloBallast.

The documentary will educate, entertain and motivate a wide range of television viewers by showing:

- The world's oceans/seas/and lakes as they are rarely seen including exotic shorelines and marine ecosystems of the six Pilot Countries.
- Some of the great ports of the world (as represented by the Demonstration Sites) and the ships that use them.
- The people of the GloBallast Programme (all parties, including the Pilot Countries, shipping industry and NGO reps, IMO, UNDP and GEF) working to protect the world's aquatic environment.
- Drama of the conflict between global trade and marine conservation, the race against time, survival and the impacts on the economy, human health and recreation.
- Science and the marine biology behind the invasions, species survival and real solutions to complex problems.

Style

The style of the documentary will be up-beat and capture the beauty, drama and scale of the seas, the ships, the exotic ports and the marine life. The human side to the story will be emphasised and the pace of each episode will be fast moving and illustrated by strong visual action. The photographic style will use spectacular underwater, surface shots and aerial scenes by experienced underwater, nature and documentary cinematographers. All footage will be shot with digital video cameras, Sony Digital (Mini DV) and DVCAM.

The host team will interview GloBallast personnel, (including from the Pilot Countries, shipping industry and NGO reps, IMO, UNDP and GEF), researchers, ships captains, sailors, fishermen and coastal peoples and other crusty characters involved in the issues. Interviews will be short and to the point and mostly overlaid with illustrative video action.

The documentary will feature all new video footage captured by a film team during several months of travel and research. Included will be footage of marine bio-invasions identified to date.

The documentary will end on a positive note, highlighting the cooperative initiatives and global and regional coalitions of the GloBallast programme and the prospects offered by the new IMO BW Convention and technological solutions.

Action Required

The PCU has commenced planning for this documentary and has begun to assemble the necessary production team, and is developing a strategy to begin negotiations with Discovery and National Geographic channels.

It is considered that a total budget of at least US\$500,000 will be required, in order to produce a documentary of the necessary quality. It is suggested that GloBallast contribute US\$200,000 as 'seed' funding, re-allocated from within the existing budget, and that the PCU raise the rest from external sources as co-financing. Some major shipping companies should be invited to sponsor the project as co-financers and provide technical input to the content and message.

The Pilot Countries will be expected to provide any in-country footage that they have already collected plus assist with in-country logistics, arranging interviews with key personnel etc once the project commences.

Agreement is sought from the Pilot Countries for the PCU to proceed with this proposal.

Agenda Item 14: GloBallast *Advanced*

Synopsis

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. The Global Ballast Water Management Programme (GloBallast) is an international technical cooperation Programme executed by the International Maritime Organization (IMO), with funding provided by the Global Environment Facility (GEF), through the United Nations Development Programme (UNDP). GloBallast commenced in March 2000, originally with a three-year timeframe, until March 2003. This has now being considered for extension by 12 months until March 2004, within the available budget.

The Programme's Development Objectives are to assist developing countries to:

- reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water,
- implement existing IMO ballast water management Guidelines, and
- prepare for the implementation of a new international ballast water Convention.

The Programme is working to achieve these objectives through six initial Demonstration Sites, located in the six main developing regions of the world, with a view to regional replication over time. The Programme is designed so that at the end of the initial implementation phase it will provide the foundation for an ongoing, sustainable technical cooperation programme to assist developing countries to implement the new Convention, further development of integrated, regional mechanisms and a global coordination and information clearing-house mechanism established at IMO.

IMO has committed to funding a permanent professional position within the secretariat to coordinate these functions after the end of the current phase of GloBallast. However, the broader scope of this Programme is beyond IMO's mandate and additional resources are required if the demand for these services from developing countries is to be met. Sustainable continuity of the Programme will maximise the substantial benefits achieved in the current phase.

The original timeframe assumed that the new international ballast water Convention would be adopted by IMO member countries in 2001, allowing a smooth transition between the regional replication and Convention implementation objectives of the Programme. However, ongoing negotiations between IMO member countries and the complexity of the issue have shifted the date of likely Convention adoption to late 2003. Once the Convention is adopted, it may take some time (possibly another five years) for full ratification and entry-into-force.

This shift in the likely timing of the adoption of the new Convention, creates an opportunity for the GloBallast Programme to further enhance its effectiveness and undertake advanced work to assist developing countries to prepare for Convention implementation. In its first two years of operation (2000-2001) GloBallast has identified an overwhelming demand from developing countries for ongoing programmatic support for regional replication and technical assistance activities. It is imperative that the unprecedented momentum of concerted international action precipitated by GloBallast to date, be exploited to maximum benefit through the development and implementation of a subsequent five year phase, covering the period April 2004 – April 2009.

GloBallast Advanced provides a programmatic framework for the sustainable continuity of the Global Ballast Water Management Programme. It is designed to build on the regional approach established during the initial phase of the Programme and therefore seeks to achieve regional implementation of international arrangements for ballast water control and management. It is also based on the principle of integrated implementation, and seeks to establish strategic alliances with other organizations and programmes that are seeking to address the problem of invasive marine species. It also seeks to integrate ballast water management activities with other coastal and marine management programmes, thereby increasing cost-effectiveness and creating inter-programme synergies.

It is envisaged that GloBallast Advanced will constitute a cooperative initiative of the GEF, UNDP, IMO, other UN agencies such as UNEP, IOC, WHO and FAO, international environmental NGOs, international shipping industry, various regional organizations, sister GEF projects and IMO member countries.

Purpose of the discussion paper

This Discussion Paper clearly outlines the need for GloBallast Advanced, the nature of the programmatic response required, and the structures, mechanisms and resources needed for effective and timely delivery. The Paper is intended simply to stimulate discussion and consideration of the likely form that GloBallast Advanced might take. It provides the basis for consultations with all stakeholders, with a view to developing more detailed plans and proposals.

Nothing in this Discussion Paper should be seen as concrete, and more defined project proposals will be developed in light of stakeholder feed-back and consistent with the requirements of donors and sponsors, including those identified at the planned GloBallast “Strategic Directions” conference in 2002/03.

The Draft Discussion Paper represents suggestions from the GloBallast PCU only.

1 Introduction & Background

The introduction of invasive marine species through ships’ ballast water and other vectors has been identified as one of the four greatest threats to the world’s oceans. The global economic impacts of marine bio-invasions have not been firmly quantified, but national and species-specific case studies indicate that they are likely to be in the order of tens of billions of US dollars. IMO has responded to this threat 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)), and
- developing a new international legal instrument on ballast water management, to be considered by an IMO Diplomatic Conference in 2003.

IMO has also joined forces with the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP) to implement the Global Ballast Water Management Programme (GloBallast). The Development Objectives of this technical cooperation programme are to assist developing countries to:

- reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water,
- implement existing IMO ballast water management Guidelines, and
- prepare for the implementation of a new international Ballast Water Convention.

The Programme is working to achieve these objectives through a three-person Programme Coordination Unit (PCU) at IMO in London and six initial Demonstration Sites, located in six Pilot Countries. These represent 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	The Gulf (ROPME Sea Area)
Odessa	Ukraine	Eastern Europe
Mumbai	India	South Asia
Saldanha	South Africa	Africa
Sepetiba	Brasil	South America

Activities being carried out at these sites include:

- Establishment of national Lead Agencies and Focal Points for ballast water issues.
- Employment of Country Focal Point Assistants.
- Formation of cross-sectoral/inter-ministerial Country Task Forces.
- Communication and awareness raising activities.
- Ballast water risk assessments.
- Port biota baseline surveys.
- Ballast water sampling.
- Training in implementation of the IMO Ballast Water Guidelines.
- Assistance with national ballast water legislation and regulations.
- Training and technical assistance with compliance monitoring and enforcement.
- Assistance with developing national ballast water management strategies and action plans.
- Assistance with developing self-financing and resourcing mechanisms.

As the Programme develops, it is intended that successes at the initial Demonstration Sites will be replicated through regional programmes.

GloBallast was commenced in March 2000, with a three-year timeframe, until March 2003. In 2001 it became apparent that an additional 12 months is required in order to allow all planned activities to be implemented, and the workplan and budget have been revised to extend the Programme until March 2004, within the available budget. As we approach the mid-point of the Programme, significant progress has been made by the GloBallast Programme Coordination Unit (PCU) at IMO in London and each of the six Pilot Countries, in achieving the Programme's objectives and workplans.

2 The Need for GloBallast *Advanced*

The GloBallast Programme is designed so that at the end of the initial implementation phase it will create the foundation for:

- an ongoing, sustainable technical cooperation programme to assist developing countries to implement the new Convention,
- further development of integrated, regional mechanisms, and
- a global coordinaton and information clearing-house mechanism established at IMO.

IMO has committed to funding a permanent professional position within the secretariat to coordinate these functions after the end of the current phase of GloBallast. However, the broader scope of this Programme is beyond IMO's mandate and additional resources are required if the demand for technical assistance from developing countries is to be met. It is a design objective of the original Programme that the substantial benefits achieved in the current phase are to be maximized through sustainable continuity of the Programme.

The original timeframe for the GloBallast programme assumed that the new international ballast water Convention would be adopted by IMO member countries in 2001, allowing a smooth transition between the regional replication and convention implementation objectives of the Programme. However, ongoing negotiations between IMO member countries and the complexity of the issue have shifted the date of likely Convention adoption to late 2003. Once the Convention is adopted, it may take some time (possibly another five years) before ratification and entry-into-force provisions are met.

This shift in the timing of the adoption of the new Convention delayed to some extent the implementation of the current phase, but at the same time creates an opportunity for the GloBallast Programme to further enhance its effectiveness and undertake advanced work to assist developing countries to prepare for Convention implementation.

A number of countries have voiced concern that GloBallast will end before the new Convention enters into force, and there will be an ongoing need for the provision of technical assistance to countries and regions in the implementation of the new convention.

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.

It would be a major loss if the momentum that has been generated by the Programme to date, is not exploited to maximum benefit through the development and implementation of GloBallast *Advanced*.

GloBallast *Advanced* provides a programmatic framework for the sustainable continuity of the Global Ballast Water Management Programme, ensuring that maximum benefits accrue from the foundation work achieved in the initial phase.

3 Aims and Objectives

The Aims and Objectives of GloBallast *Advanced* should be a logical extension of the initial Programme, with a greater regional focus and more emphasis on integrated management, as follows:

Aim

To assist developing countries to reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water.

Objectives

To assist developing countries to:

- build regional partnerships towards effective implementation of international arrangements for ballast water control and management.
- develop and implement national and regional integrated invasive marine species strategies and action plans.
- integrate regional ballast water and invasive marine species programmes with other marine and coastal environmental management arrangements.

4 Timeframe

The scope and workplan for GloBallast *Advanced* is broader and larger than that for the initial programme. Should the new ballast water Convention be adopted in late 2003, it may take some time (possibly another five years) before ratification and entry-into-force provisions are met. GloBallast *Advanced* is therefore critical to ensure rapid and effective implementation of the new Convention in developing countries, and a five (5) year timeframe is required, commencing April 2004 (the transition from the initial programme to *Advanced* should be seamless).

5 Regional Implementation

The main focus of GloBallast *Advanced* will be on regional implementation of the new Convention, both within the developing regions represented by the initial six Demonstration Sites and in new regions which have not benefited from the programme to date.

The ballast water problem has a high degree of specificity, due to the fact that invasive marine species do not recognise national boundaries and that the shipping industry also crosses jurisdictional boundaries in the conduct of trade. If the new Convention is only implemented by one or a few countries, it will not be effective. All countries in various regions must work together in order for the Convention to work.

The foundations of the regional approach are being laid by the initial Programme, in the following regions:

- Africa
- Asia/Pacific
- Eastern Europe
- The Gulf (ROPME Sea Area)
- South America
- South Asia

In GloBallast *Advanced*, new regions will need to be added, and two of the initial regions will be split into more logical technical cooperation units, as follows:

- Asia/Pacific into separate East Asia and Pacific Islands regions.
- Eastern Europe into separate Baltic Sea and Black Sea regions, and inclusion of the Caspian Sea in activities covered by the Black Sea region.

Additional new regions will be incorporated as follows:

- Mediterranean Sea.
- Red Sea and Gulf of Aden.
- Wider Caribbean.

The GloBallast *Advanced* workplan will focus on providing institutional strengthening, capacity building and technical assistance in each of these regions, to replicate the successes of the original Demonstration Sites and to develop regional and national activities to implement the new Ballast Water Convention and other invasive marine species programmes.

This will be effected through Regional Invasive Marine Species Task Forces (RIMS Task Forces), which build on the regional frameworks established by the initial phase of the Programme and its Regional Project Task Forces (RPTFs). The RIMS Task Forces will be supported by Regional Invasive Marine Species Coordinators (RIMS Coordinators), funded by the Programme and seconded to relevant existing regional organizations (refer section 9).

6 The Need for Integration

It is increasingly recognised that it may be more effective and efficient to take a more holistic, integrated approach to the management of invasive marine species. Countries that are advanced in this field have already adopted this approach. For example the Australian National Ballast Water Management Programme has become the Australian Invasive Marine Species Programme, addressing all vectors and pathways. The New Zealand ballast water management arrangements are mandated under a holistic biosecurity regime rather than sector-specific maritime legislation. The US ballast water programme falls under the integrated Aquatic Nuisance Species Programme.

In addition, various international guidelines on the management of invasive species promulgate an holistic, integrated approach, including those published by the Global Invasive Species Programme (GISP), the World Conservation Union (IUCN) and technical groups under the Convention on Biological Diversity (CBD).

The GloBallast Programme seeks to address invasive marine species carried by one vector only, ballast water. This in part reflects the mandate of IMO, which does not extend to non-shipping sectors, and also the need to ‘get it right’ for one vector first. It is not appropriate for IMO to take on the roles and responsibilities of other organizations, however IMO should seek to cooperate and collaborate as far as possible with other related programmes and activities.

It is worth noting however, that the GloBallast Programme and the IMO ballast water regime are not entirely sector-specific. Compared with the invasive species management activities under the CBD, the GloBallast concept is at the same time narrower and broader than the CBD. It is narrower in that it seeks to address one vector only. But it is broader in that it seeks to protect all resources and values from invasive species, including ecology, economy and human health, and not just one resource, such as biodiversity.

Never the less, GloBallast *Advanced* should follow the international trend in best practice approaches and begin to adopt a more holistic, integrated approach to the management of invasive marine species, while retaining its technical focus on ballast water management. This can be achieved in a number of ways:

- liaising, coordinating and collaborating more closely with other international groups working on the issue of invasive marine species, such as GISP, IUCN, and United Nations Environment Programme (UNEP) and its CBD, the International Council for the Exploration of the Seas (ICES), the Intergovernmental Oceanographic Commission (IOC), the UN Food and Agriculture Organization (FAO) and the World Health Organization (WHO),
- developing national and regional ballast water arrangements as part of broader national and regional invasive marine species strategies and action plans,
- deploying RIMS Coordinators to each developing region to develop these strategies and action plans and provide the necessary technical assistance (see section 9),
- building on the regional frameworks established by the initial phase of the Programme by developing the Regional Project Task Forces (RPTFs) into more holistic, integrated RIMS Task Forces, and
- forming a strategic alliance with GISP, IUCN and/or UNEP for the employment and deployment of the Regional IMS Coordinators, and for funding the development and implementation of the regional strategies and action plans.

A strategic alliance between IMO/GloBallast and GISP, IUCN and/or UNEP will provide an extremely powerful global mechanism to address invasive marine species in a meaningful way.

7 Institutional Arrangements

The institutional arrangements for GloBallast *Advanced* should comprise:

- A PCU at IMO headquarters in London (see section 9).
- A RIMS Coordinator in each developing region of the world, hosted by existing regional marine environmental programmes (e.g. existing GEF 'sister' programmes or UNEP Regional Seas offices - see section 9)
- A Global Task Force (GTF) based on the model used in the initial programme, comprising all stakeholders, meeting annually or as needed to review and approve PCU workplans and progress, and provide advice and guidance to the programme,
- A RIMS Task Force in each region, comprising all stakeholders, to oversee the development and implementation of the regional strategies and action plans, derived from the Regional Project Task Forces (RPTFs) established under the initial programme.

8 The Role of the Original Pilot Countries

GloBallast *Advanced* will focus on assisting the development of regional frameworks, rather than national activities. However, the Country Focal Points (CFPs) and Country Project Task Forces (CPTFs) established in the six Pilot Countries in the initial phase should be used as a model for national-level activities under GloBallast *Advanced*. Developing countries should be encouraged to adopt similar national arrangements through the RIMS Task Forces.

The initial six Pilot Countries should continue to play a significant role in GloBallast *Advanced*, representing a source of expertise developed through the capacity building activities of the original Programme. The expertise established in the Pilot Countries could be contracted as consultants under GloBallast *Advanced*, to advise and assist neighbouring countries in their respective regions, to chair/facilitate the RIMS Task Forces, to host study tours to their Demonstration Sites and to assist and advise with the development of Regional Strategies and Action Plans. The CFPs and their Assistants can be considered potential resources for the envisaged RIMS Coordinators.

While it is strongly expected that the Pilot Countries will become self-financing in terms of national ballast water management activities at the end of the initial phase of GloBallast, they will require funding under GloBallast *Advanced* for these extra-national, regional leadership activities.

9 Human Resources

One of the “conditions” of GEF funding for GloBallast, is that IMO will establish and maintain an ongoing in-house programme management, technical assistance and global information clearinghouse and communication capability for ballast water management matters. This includes at least one permanent professional position funded from the regular IMO budget.

It is expected that the significant workload of the GloBallast PCU during the current Programme will increase with regional replication and Convention implementation activities in GloBallast *Advanced*. Given this increased responsibility and commitment, one professional position is totally insufficient to meet the demand for GloBallast *Advanced*. As broader commitment to the PCU is beyond the mandate and resources of IMO, additional human resources are therefore required.

These comprise an extension and expansion of the current PCU at IMO headquarters in London, the placement of RIMS Coordinators in each developing region of the world, and the provision of ongoing support to the CFPs in the Pilot Countries to assist the development of regional arrangements. Further details of the human resources required are given below.

Programme Coordination Unit (IMO London)

The current PCU requires evolution in order to meet the demands of GloBallast *Advanced*. The Programme Manager (PM) and his/her Principal Administrative Assistant (PAA) should be permanent IMO positions, according to IMO’s commitment under the original project design. All other PCU staff should be fixed term IMO programme officers, funded by the Programme and engaged for an initial three years with a possible extension of two further years (GloBallast *Advanced* having a timeframe of 5 years). The Maritime Adviser could be seconded from the shipping industry, as part of its support for the Programme.

The required re-organization of the PCU is outlined below.

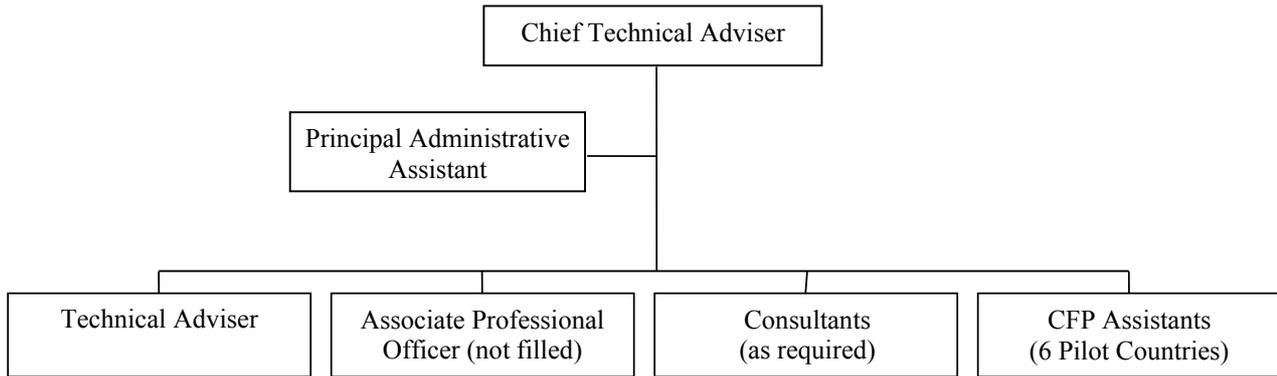


Figure 1: GloBallast PCU - Current Organizational Structure

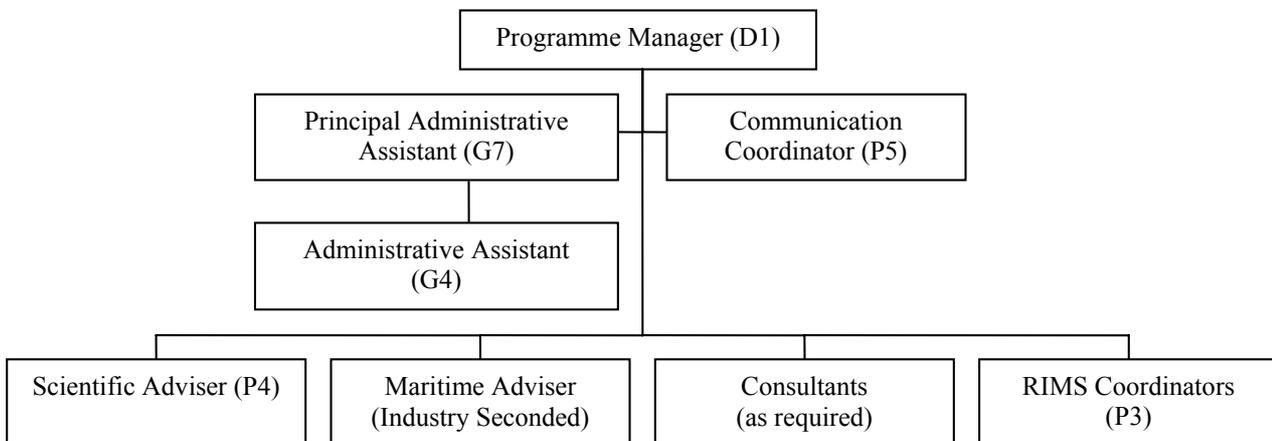


Figure 2: GloBallast PCU – Advanced Organizational Structure

Each of the PCU positions is described in more detail in Appendix One.

Regional Invasive Marine Species (RIMS) Coordinators (11 Developing Regions)

As the main focus of GloBallast *Advanced* will be on regional cooperation and replication, through 11 developing regions, the placement of RIMS Coordinators in each of these regions is necessary. Experience shows that regional programmes will not be developed and effectively implemented if human resources are not dedicated to coordinating the necessary tasks.

For cost-effectiveness and integrated management reasons, the RIMS Coordinators should be based within existing regional marine environment programmes (e.g. GEF ‘sister’ programmes and/or UNEP Regional Seas programmes). The foundation of this integrated, regional implementation approach has been established in the current Programme. For example in developing the first GloBallast Regional Action Plan (RAP) for the Black Sea, the Istanbul Commission/Black Sea Environment Programme is responsible for coordinating implementation of the RAP. Integrating GloBallast with existing regional mechanisms helps to reduce administration costs and create inter-programme synergies. National implementation responsibility remains with individual countries.

The main role of the RIMS Coordinators will be to coordinate the development and implementation of Regional IMS Strategies and Action Plans in each region. These should be holistic, integrated

regional programmes to address IMS from all vectors, not just ballast water. These include other ship-based vectors such as hull fouling, plus non-shipping vectors (see section 6).

A strategic alliance should be formed between GloBallast and GISP, IUCN and/or UNEP for the employment and deployment of the RIMS Coordinators and the funding and implementation of the regional strategies and action plans. This alliance will provide an extremely powerful global mechanism to address invasive marine species in a meaningful way.

The RIMS Coordinators should be funded by the GloBallast *Advanced* (salary, initial equipment grant and basic regional travel budget), under the strategic alliance developed with GISP, IUCN and/or UNEP. They will be provided with office facilities and supported by the relevant host organization (including administrative and infrastructure support). However, they will be responsible for identifying and securing sources of funding for the development and implementation of the Regional IMS Strategies and Action Plans, within each region.

The RIMS Coordinators should be IMO employees at the P3 level, engaged for an initial three years with a possible extension of two further years.

Table 2: Locations of RIMS Coordinators.

Region	Host Organization	Location	Geographical Coverage
Africa	?	?	Africa
Baltic Sea	HELCOM	Helsinki, Finland	HELCOM member countries
Black Sea & Caspian Sea	Black Sea Environment Programme	Instabul, Turkey	All Black Sea and Caspian Sea littoral States.
East Asia	PEMSEA	Manila, Philippines	PEMSEA member countries
Mediterranean	REMPEC	Malta	REMPEC member countries
Pacific Islands	SPREP	Samoa	SPREP Island member countries
Red Sea & Gulf of Aden	PERSGA	Jeddah, Saudi Arabia	PERSGA member countries
ROPME Sea Area	ROPME-MEMAC	Bahrain	ROPME member countries
South Asia	SACEP	Colombo, Sri Lanka	SACEP member countries
South America	?	?	South America
Wider Caribbean	REMPIETC-Carib	Curacao	Wider Caribbean

10 Activities & Workplan

The Workplan for GloBallast *Advanced* is a logical extension of the activities carried out in the initial Demonstration Sites, with a regional, rather than a Pilot Country or Demonstration Site, focus.

At the end of the current Programme (March 2004) the initial Pilot Countries should be sufficiently advanced in ballast water management arrangements to become self-sufficient and not require further assistance from GloBallast. As stated under Section 8 above, the expertise established in the initial Pilot Countries could be contracted as consultants under GloBallast *Advanced* to advise and assist neighbouring countries in their respective regions.

The *Advanced* Workplan can be divided into two components; Global (PCU) Workplan and Regional Workplans. General outline or 'Skeleton' Workplans are presented in Tables 3 and 4 below. These will need to be developed further.

Table 3: Global (PCU) Workplan* (5 year period April 2004 – April 2009)

Activity	Description	Responsible Officer	Budget (US\$)*
Human Resources	Employ/manage PCU staff	IMO/PM	PM and PAA IMO regular budget. AA: 250K CC: 700K SA: 700K MA: Industry.
Hardware	Procure necessary additional hardware for reorganized PCU.	PM	50K
Communication & Information Clearing House (CHM)	Further develop and maintain CHM, including; Web Site, Directories & Databases and Quarterly Newsletter. Further develop extension, outreach and awareness raising materials/activities, with greater focus on mass media.	CC	500K
Global Task Force	Arrange Annual GTF Meetings	PAA	400K
Regional Support Activities.	Support the establishment of the RIMS Coordinators. Support the establishment of RIMS Task Forces. Support the development and implementation of Regional IMS Strategies and Action Plans.	PM/all PCU.	Staff time and travel (see travel budget below).
Ballast Water Risk Assessment	Establish standardised international protocols for carrying out risk assessments. Assist regions to conduct risk assessments.	SA & MA	100K Staff time and travel (see travel budget below).
Port Baseline Surveys, Global Invasions Database and Reporting System.	Assist regions to conduct surveys. Establish global early warning system for invasions and outbreaks.	SA & CC	Staff time and travel (see travel budget below). 150K

Table 3 continued . . .

Activity	Description	Responsible Officer	Budget (US\$)*
Ballast Water Treatment	Maintain Ballast Water Treatment R&D Directory. Organize biannual International Ballast Water Treatment R&D Symposiums. Administer International system for evaluation and approval of new ballast water treatment technologies (establish International Exerts Panel).	SA & MA	Staff time. 100K 200K
Compliance Monitoring & Enforcement (CME)	Assist and coordinate the regional delivery of the model CME 'tool box' developed in the initial Programme. Further develop the model CME 'tool box' in line with the new Ballast Water Convention and technological developments. Develop and maintain directory of national and regional CME systems, and input to CHM.	SA & MA	Staff time and travel (see travel budget below). Staff time. Staff time.
Conferences, Workshops and Meetings	Attend/present at relevant conferences, workshops and meetings.	PM/all PCU	Staff time and travel (see travel budget below).
Liaison, Coordination and Collaboration with Other Programmes.	Link with other relevant programmes such as GISP, IUCN, UNEP CBD etc	PM/all PCU.	Staff time and travel (see travel budget below).
Programme Evaluation & Review	Carry out regular, periodic evaluation and review of the programme at both the global and regional levels.	PM	Staff time and travel (see travel budget below).
Travel	Travel as required to undertake the above activities.	PM/all PCU	500K
Total:			3,650,000.

* Indicative only. Workplan and budget needs to be developed in detail.

Table 4: Regional Workplan* (5 year period April 2004 – April 2009)

Activity	Description	Responsible Officer	Budget (US\$)*
Human Resources (11 x P3)	Employ/establish RIMS Coordinator in each region (UN P3 level or equivalent)	PCU PM with support from host organization.	2M
Hardware	Procure necessary hardware (computer etc) for RIMS Coordinators	RIMS Coordinator and host organization.	10K per RIMSC x 11 = 110K.
Resourcing & Funding	Identify and secure resourcing and funding from multilateral agencies, bilateral donors, regional development banks, private industry and other sources for development and implementation of the RIMS Strategy and Action Plan.	RIMS Coordinator	Staff time and travel (see travel budget below).
Communication	Develop and implement regional CHM, including; Web Site, Directories & Databases and Quarterly Newsletter. Develop and implement regional extension, outreach and awareness raising materials/activities	RIMS Coordinator	50K per region x 11 = 550K.
Regional IMS Task Force	Establish RIMS Task Force. Arrange/support RIMS Taskforce Meetings	RIMS Coordinator	200K per region x 11 = 2.2M.
Regional IMS Strategy and Action Plan	Coordinate the development and implementation of the Regional IMS Strategy and Action Plan. Initial Pilot Countries to advise and assist regional efforts.	RIMS Coordinator Initial Pilot Countries.	Staff time and travel (see travel budget below). 150K per country x 6 = 900K
Conferences, Workshops and Meetings	Attend/present at relevant regional conferences, workshops and meetings when clearly necessary/of benefit to the Programme.	RIMS Coordinator	Staff time and travel (see travel budget below).
Liaison, Coordination and Collaboration with Other Programmes.	Link with other relevant regional programmes.	RIMS Coordinator	Staff time and travel (see travel budget below).
Travel	Travel as required to undertake the above activities.	RIMS Coordinator	50K per region x 11 = 550K
Total			6.31M

* Indicative only. Workplan and budget needs to be developed in detail.

11 Budget and Funding

The budget required for GloBallast *Advanced* as indicated above comes to US\$3.65 million for the PCU Workplan over five years and US\$6.31 million for the Regional Workplans over five years, bringing the total budget required to US\$9.96 or US\$10 million. (NB: This is indicative only. Workplan and budget needs to be developed in detail).

The proposed budget appears to be very reasonable as it covers the entire GloBallast *Advanced* five year programme, compared with the initial allocation of US\$7.39 million for three years. Considering that regional GEF projects such as PEMSEA have received funding exceeding US\$16 million, the proposed budget is both realistic and achievable.

UNDP GEF has indicated that up to US\$6 million might be available from GEF for GloBallast *Advanced*, subject to the normal GEF application and evaluation procedures, and the securing of substantial co-financing.

Clearly, additional sources of funding need to be identified and secured. The PCU is working on this, and the Strategic Directions/Donors Conference planned for 2002/03 will play an important role in this regard.

Potential additional sources of support for GloBallast *Advanced* that should be explored include:

- The international shipping and port industries.
- Regional Development Banks.
- Regional organisations such as EU, APEC, ASEAN etc.
- National Development Cooperation Agencies in developed countries.
- IMO Technical Cooperation Fund.
- Other UN agencies (e.g. UNEP, WHO, FAO).
- Environmental NGOs (e.g. IUCN, WWF).
- Philanthropic foundations (e.g. Packard Foundation).

Appendix 1: PCU Position Justifications

These notes explain the background, need and main duties of each GloBallast *Advanced* PCU position. The justifications are based on a considered evaluation of the workload of the current PCU and the likely workload associated with the implementation of GloBallast *Advanced*. Detailed Position Descriptions needs to be developed for each position.

Programme Manager (PM)

The Programme is currently managed by a Chief Technical Adviser (CTA). However, this role demands a programme management rather than a technical advisory focus. The position needs to be freed from detailed technical functions and day-to-day supervision of individual activities to focus on overall management and delivery of the Programme, workload planning and programming, performance monitoring and reporting, financial management, strategic planning and high-level stakeholder liaison.

In keeping with the original design of the GloBallast Programme and IMO's commitment that a permanent capability will be established at IMO to provide ongoing technical assistance in the ballast water area, the Programme Manager will be a permanent IMO position funded from the regular IMO budget (at D1 level).

Communication Coordinator (CC)

The original GEF/UNDP Project Document clearly identifies the need for broad-band awareness-raising, a global information clearinghouse mechanism (CHM) and other communication functions as being one of the highest priorities of the Programme, and one of the main functions of the PCU.

The demand for this communication function is increasing exponentially and will only continue to increase as the new Ballast Water Convention is adopted and implemented. When considering the plethora of ballast water initiatives manifesting at all levels and in all sectors globally, a truly effective CHM is vital if a standardised global regulatory regime is to be adopted and implemented.

To achieve this, the original project design supports the CTA with a 'Communication Specialist'. This position is nominally responsible for:

- developing and maintaining a contacts database,
- developing and maintaining an information resource centre, clearinghouse and communication function,
- producing an information bulletin (newsletter),
- developing and maintaining a web-site,
- developing education and awareness raising programme, and
- liaising with other organizations.

In practice the 'Communication Specialist' role is being effected by a Technical Adviser (TA) who, in addition to the above, is also handling:

- representation of the programme and IMO at various international meetings,
- chairing/co-chairing of various international working groups/task forces (e.g. ICES/IOC/IMO working group),
- provision of scientific and technical advice to countries and stakeholders,

- development and management of consultancies and contracts,
- Programme planning and management functions,
- significant travel and support to the pilot countries, and
- other duties way beyond the scope of the position description.

It is necessary to split this workload and engage a dedicated Communication Coordinator for all global CHM, awareness-raising and other communication functions. The other non-communication functions carried out by the current TA would be reallocated to the new positions of Scientific Adviser and Maritime Adviser (see below).

The high level of responsibility and technical competence of this position requires that it be designated as P5, funded from the Programme budget.

Scientific Adviser (SA)

During the current phase of GloBallast there has been a significant demand from stakeholders for a high level of scientific expertise within the PCU, in areas such as:

- the ecological impacts of invasive marine species,
- biological field surveys for invasive marine species,
- risk assessment methodologies,
- the technical effectiveness of ballast water management and treatment technologies,
- the development of technical standards and performance criteria,
- ballast water treatment R&D, and
- ballast water sampling procedures and protocols.

A crucial role of the PCU is to undertake global reviews on these scientific issues, identify current world's best practice and establish and maintain databases and directories, organize international meetings and workshops, develop guidelines and manuals, review and evaluate scientific and technical projects, proposals and reports, and provide and coordinate advice to pilot countries and other stakeholders on these matters.

The demand for this function is increasing exponentially and will only continue to increase as the new Ballast Water Convention is adopted and implemented, as GloBallast *Advanced* begins to undertake regional replication activities and more countries plan and conduct scientific and R&D activities.

In addition, in order to achieve relevant requirements of the existing IMO Ballast Water Guidelines and the new Ballast Water Convention, a global system of ongoing port surveys needs be implemented with all major ports in the world using a standardised approach. Results should be fed into a global database of marine introductions. This should be linked to a communication system which allows the international shipping industry to be alerted to outbreaks of harmful species, and to manage their ballast operations accordingly. It would also be used by port and government authorities.

There may also be a requirement to administer the new international system for the evaluation and approval of new ballast water treatment technologies, currently being developed within the context of the new Ballast Water Convention. PCU will need to be strongly supported by scientific expertise.

Finally, IMO and the GloBallast PCU are increasingly expected to liaise and collaborate with other international groups working on the issue of invasive marine species, such as ICES, IOC, FAO, WHO, GISP, IUCN, UNEP and its CBD. Such collaboration is vital to developing a more integrated, holistic response to the threat of invasive marine species (refer section 6). Many of the approaches

being taken by these groups are scientific and most of their senior personnel are scientists. It is necessary for IMO and the PCU to be able to 'speak their language.'

These functions cannot be carried out unless adequate scientific/technical expertise exists within the PCU. Clearly, the workload and the specialised expertise required demands a dedicated Scientific Adviser. A P4 level would be appropriate for this position, funded from the Programme budget.

Maritime Adviser (MA)

Ballast water management is a shipping issue and maritime expertise and experience is therefore a core component of any ballast water management programme.

One of the outputs of the current phase of GloBallast will be modular training courses, designed for use in training the maritime industry (both shipboard and port-side personnel) in ballast water management, consistent with the current IMO Ballast Water Guidelines and the new Ballast Water Convention. Once these training packages are available, the provision and coordination of advice and assistance will be necessary for their global implementation.

A crucial role of the PCU is to undertake global reviews on the maritime aspects of ballast water management; identify current world's best practice and establish and maintain databases and directories; organize international meetings and workshops; develop guidelines and manuals; review and evaluate maritime technical projects, proposals and reports; and provide and coordinate advice to pilot countries and other stakeholders on these matters.

In the context of the likely requirements to administer the new international system for the evaluation and approval of new ballast water treatment technologies, maritime / seafaring expertise will be crucial for the smooth implementation of the anticipated Convention.

Finally, the GloBallast PCU is increasingly expected to liaise and collaborate with international shipping industry groups. It is necessary for the PCU to be able to 'speak their language.'

These functions cannot be carried out unless adequate maritime expertise exists within the PCU. Most of these functions are currently carried out by the existing CTA and TA. Clearly, the workload and the specialised expertise required demands a dedicated Maritime Adviser. It is suggested that the potential for this position to be seconded from the shipping industry, as part of its support for the programme, be explored.

Principal Administrative Assistant and Administrative Assistant (PAA and AA)

Currently, the PCU is serviced by a single Principal Administrative Assistant. Experience has shown the workload requires two assistants. To date, this has been partially addressed by short-term use of a temporary assistant during peak workload periods in implementing the Programme.

With an expanded PCU and workplan, *Advanced* will require at least two full-time administration staff. At least the PAA position should be funded from the regular IMO budget, in support of the PM, which is a permanent IMO position and requires administrative support.

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Appendix 2: Minutes of the Meeting

Wednesday 16 January

Conference Room, Hotel Cidade de Goa (GloBallast team only)

Bilateral meetings PCU/Pilot Countries. The meetings were also attended by the UNDP-GEF representative, the Chairman of MEPC and IMO representatives.

Thursday 17 January

National Institute of Oceanography, Dona Paula, Goa

Opening Session was addressed by:

Mr S Chakrabarty, Country Focal Point, India

Mr M P Pinto, Secretary, Ministry of Shipping, Government of India.

Dr D T Joseph, General Director of Shipping, Government of India.

Shri Shaikh Hassan Haroon, Hon. Minister for Environment, Industries & Cultural Training, Goa State.

Dr E Desa, Director National Institute of Oceanography.

Mr Michael Julian, Chairman, Marine Environment Protection Committee, IMO.

Mr Phil Reynolds, Representative, UNDP – GEF.

Mr Jean-Claude Sainlos, Senior Deputy Director, Marine Environment Division, IMO.

Mr Dandu Pughiuc, Chief Technical Adviser, GloBallast Programme, IMO.

Agenda item 1: Adoption of the Agenda

The agenda was adopted

Agenda item 2: PCU Progress Report & Revised Project Implementation Plan

A comprehensive progress report was presented by the PCU covering the period 1 January to 31 December 2001. The PCU was congratulated on the significant achievements in 2001, although it was noted that actual expenditure was below the planned expenditure for the programme to date. PCU explained that some important payments for activities undertaken in 2001 are due early in 2002 and the real expenditure is higher than that which appears in the report.

The Chairman of MEPC commented that a financial analysis comparing actual with planned expenditure would be useful, and that the progress report should be presented in tabular format, comparing the status of each activity against the approved Project Implementation Plan (PIP). PCU informed that a financial audit and a Project Implementation Review were performed in year 2001. It was agreed that these would be included as part of future PCU progress reports.

The Chairman of MEPC noted that PCU workload had prevented the Ballast Water Treatment R&D Directory and the GloBallast web-site from being updated. He stated that these were most useful core functions of the PCU and that additional human resources should be engaged if necessary to ensure that they are maintained and updated regularly.

As a more general comment the Chairman of MEPC stressed that the objective of GloBallast is to assist developing countries selected as demonstration sites to implement the IMO Resolution A.868(20) so that they are ready when the Convention is adopted and later when it enters into force.

The PCU presented a revised PIP (Revision D) incorporating a 12-month extension (from March 2003-March 2004) to activities, within the available budget.

All countries plus UNDP-GEF expressed their support for the proposed 12-month extension.

South Africa congratulated the PCU and noted that the South African currency had been devalued to such an extent that despite significant activity, funds available under their National budget are almost the same as their original budget. They may be able to release national funds for specific PCU activities and consultants under the 12-month extension.

The PCU advised that countries should revise their National Workplans based on Revision D of the PIP and submit these to the PCU for review as soon as possible.

The UNDP-GEF representative suggested further exploring the possibility of co-operating with IUCN, which could be an appropriate independent reviewer for the ballast water treatment standards developed by IMO and feed back comments from the "consumer's" perspective. He further stated that in revising their National Workplans, countries should clearly show savings achieved and delays incurred, compared to the original Workplans.

South Africa requested the PCU to advise the new total amount of funds available to each country for their revised National Workplans, given the 12-month extension to the PIP and the re-allocation required to fund the extension. The PCU undertook to provide this by the end of the meeting.

The session Chairman concluded that all countries and UNDP supported the proposed 12 month extension and requested comments on the revised PIP be forwarded to the PCU by the first of March 2002. On the basis of these comments and the revised country workplans and budgets discussed under Item 3 below, the PCU would prepare a revised PIP and project budget revision for submission to UNDP/GEF.

Item 3: Country Status Reports, progress to date and forthcoming activities

All six Pilot Countries presented Country Status Reports for the period 1 January to 31 December 2001, and outlined their draft revised National Workplans, incorporating the proposed 12 month extension. Brazil, India and South Africa informed the meeting of significant funding allocated by their Governments to support activities related to ballast water management and control.

UNDP-GEF and the session Chairman congratulated the countries on the significant achievements in 2001, although it was noted that total country actual expenditure was after two years in some cases about 16% of planned expenditure for the programme to date.

UNDP-GEF stated that countries needed to plan expenditure more specifically, and that governmental contributions need to be made clearer, with details of all in-kind and cash contributions to the programme. UNDP and GEF will be looking for clear demonstration of in-country contributions in future reports. It was also suggested that future reports should include comparison between the countries' implementation.

Iran extended an invitation to host the 5th GPTF in Tehran. The offer was well received.

The session Chairman congratulated all countries on their presentations, and requested that revised National Workplans, reflecting Revision D of the PIP, be forwarded to the PCU for review by the first of March 2002.

Item 4: Consultant's presentation and discussions on forthcoming Risk Assessment

The PCU introduced Dr Rob Hilliard of URS Consultants, who had been selected through the IMO tender process to conduct and provide training and capacity building in Ballast Water Risk Assessments for each demonstration site.

Dr Hilliard gave a presentation on the proposed risk assessment methodology (see Appendix 4) and outlined the steps required of each country in preparation for the forthcoming country visits by the URS Risk Assessment team.

The session Chairman requested countries to take note of these requirements and closed the meeting at 19:05.

Friday 18 January 2002

Meeting commenced 08:30

Agenda Item 14 - GloBallast *Advanced*

This agenda item was brought forward as two key participants, Mr Michael Julian and Mr Jean Claude Sainlos, would be leaving in the early afternoon.

The PCU outlined the GloBallast *Advanced* concept as described in the Draft Discussion Paper.

South Africa commented on the need to strengthen regional platforms for coordinating all marine issues, and stated that the proposed Regional Coordinators could be linked with existing Regional Seas Programmes. It was also stated that Africa was too large to be treated as a single region under GloBallast *Advanced*, and comprised at least two regions (east and west), with two existing agreements (Nairobi Convention and Abidjan Convention).

The IMO representative commented that IMO is negotiating a new memorandum of understanding with the UNEP Regional Seas Programme, which might be of benefit to GloBallast *Advanced*.

The PCU commented that the UNEP Regional Seas Programme was only one of several existing regional structures and mechanisms through which GloBallast *Advanced* activities might be delivered. Others include 'sister' GEF IW projects such as PEMSEA and Black Sea Environment Programme (which also corresponds to a UNEP Regional Seas Programme). The PCU suggested that it would be important to take a 'region by region' approach and select the optimum arrangement for each region.

The Friends of the Earth International (FOEI) suggested that the OSPAR region be included. The PCU noted that OSPAR comprises developed countries that are not eligible for GEF assistance and to whom GloBallast is looking for support. Linkages with OSPAR and similar regions will be developed along such lines.

Iran suggested that the present regions should have an important role in the future programme by expanding to include other vectors. The PCU commented that the Programme will remain focussed on Ballast Water but should be linked with other programmes that address other vectors, through strategic alliances with bodies such as IUCN, UNEP, GISP etc.

The Chairman of MEPC stated that the concept of GloBallast represented a totally new approach in IMO's history through providing technical assistance to countries prior to the Convention coming into force and the response from the Pilot Countries was particularly encouraging. IMO is all about the implementation of IMO Conventions. Further funding from GEF for GloBallast *Advanced* would be a significant boost to addressing this problem on a global scale. He also recommended that GloBallast *Advanced* should be planned to last for a period of 3 to 4 years.

In his statement the representative of UNDP-GEF emphasized the need for sustainability and sound management of the human resources if a request for continuation of GloBallast is to be considered by the GEF. He reminded the participants that GloBallast has started with CFPs nominated and funded by the participating governments, which ensured sustainability beyond the life of the project. He

advised to identify similar CFPs in the targeted regions and consider recruiting national assistants if needed. He also advised to redraft the document based on the comments provided by the participants. He suggested that a review of the draft GloBallast Advanced document be undertaken by the independent evaluator appointed to carry out the mid-term review of the current project and that the final text be agreed upon during the next GPTF in Dalian, China. The UNDP-GEF representative was of the view that if the projected Strategic Directions/Donor Conference endorses the final proposal, the document will gain substantial credibility and the chances of it being approved by the GEF Council will increase significantly.

Brazil offered to host the Strategic Directions/Donor Conference in March 2003.

The session Chairman requested all parties to provide detailed comments on the GloBallast *Advanced* Draft Discussion Paper to the PCU by 20 February and concluded by noting the general agreement for GloBallast Advanced Phase, oriented towards regional replication in parallel with the use of the existing national capacities. He did not exclude the possibility of UNEP hosting the regional coordinators from a cost effectiveness point of view, and mentioned similar co-operative arrangements between IMO and UNEP in the Mediterranean Region (REMPEC). He stressed the fact that ballast water issues fall under IMO's mandate and IMO will have to assist its Member States in the implementation process even after the adoption of the anticipated Convention.

Agenda Item 6: Information on the proposed IMO/Pilot Countries MoUs

The PCU presented a paper on this subject.

Several Pilot Countries commented on the status of their MoUs.

The session Chairman concluded that most countries were close to concluding their MoUs and encouraged the CFPs from Brazil and India to expedite the process in their countries.

Agenda Item 7: Port Baseline Surveys

The PCU presented a paper on this subject, including the proposed International Port Survey Workshop planned for Brazil in July 2002.

Brazil confirmed its willingness to host the workshop, subject to obtaining approval from the Lead Agency, and suggested July might be re-considered as it is holiday time in Brazil. The new data for this meeting will be communicated in due time

The other pilot countries supported the proposed workshop.

India mentioned the need for ballast water sampling en route. The PCU stated that there was a significant body of information already and there was no need to duplicate work already done, and that this issue would be considered in more detail under agenda item 9(b).

South Africa and Iran stated that assistance is needed in developing an international network of taxonomists to assist the port survey work. The PCU stated that it was intended to develop this further at the Port Survey Workshop and encouraged the CFPs to share their own networks through the GloBallast web site.

The UNDP-GEF representative suggested that the Biological Diversity division of GEF could be a resource for biodiversity/taxonomy.

IUCN offered its support with regard to surveys and marine taxonomists. The contribution to science from these surveys would be a great service and IUCN would value being involved.

The session Chairman concluded that the PCU should proceed with this activity.

Agenda Item 8: BWM training package

The PCU presented a paper on this subject reporting on the status of this activity.

FOEI stated that the intention is not to train the seafarers directly but to develop training courses to train the trainers (in existing maritime training centres). In turn they will address the seafarers through the traditional channels.

The Chairman of MEPC emphasized that the intention of this activity is to provide training material to the numerous maritime training establishments in the countries hosting demonstration sites. He also stressed the importance of training the shore personnel responsible for implementing the IMO Ballast Water Guidelines.

The PCU confirmed this and stated that every 3 to 5 years seafarers stay ashore and receive refresher courses. The BW training courses could be incorporated in this.

The UNDP-GEF representative stated that the objective was a standardized course which would not be instructor dependent. The first course will be trialed in one location, with participation by all Pilot Countries and subsequently adapted in the remaining countries. He emphasized that the port side of the course is equally important and suggested establishing clear deadlines for the next phases of this activity.

The PCU stated that it is important to bear in mind that the STCW Convention provided the IMO framework for seafarer training and anything developed by GloBallast must be consistent with STCW developments.

The session Chairman concluded that the PCU should proceed with this activity.

Agenda Item 9: Compliance Monitoring & Enforcement

The PCU presented a paper on this subject, and referred to the CME Scoping Study Report which was circulated to all participants. This provides the raw material for a CME system.

INTERTANKO emphasized the need for a harmonization of BW sampling methods.

The PCU stated that all parties should provide comments on the CME Scoping Study Report to the PCU by the end of March.

The Chairman of MEPC requested that the final report eventually be submitted to the Ballast Water Working Group of MEPC, for its information. He indicated that MEPC 48 is expected to agree upon many of the issues currently under debate.

UNDP-GEF stated that the progress of the new Convention and CME are linked. May need to re-schedule this activity in the PIP for year 2003.

The session Chairman concluded that the PCU should proceed with this activity.

Agenda Item 9 (b): Ballast Water Sampling

The PCU presented a paper on this subject, including the proposed International Ballast Water Sampling Workshop planned for Brazil in July 2002 to be held back-to-back with the Port Survey Workshop for cost efficiency reasons.

Brazil confirmed its willingness to host the workshop, and suggested July might be re-considered as it is holiday time in Brazil.

The other pilot countries supported the proposed workshop.

FOEI stated that ship-design expertise should be included in the workshop to provide advice how best to access ballast tanks for optimum sampling and that sampling at the point of discharge should be included.

The session Chairman concluded that the PCU should proceed with this activity.

Agenda Item 10: Legislative Review

The PCU presented a paper on this subject, stated that an Information Paper has been submitted for MEPC 47, and that the full Final Report would be available soon.

FOEI inquired about the possibility of translating the precautionary approach in the legal framework. The Chairman of MEPC suggested that the precautionary approach will be dealt with in a similar manner as it was in the Anti-fouling Convention.

The PCU stated that it was each country's prerogative to determine how it would implement the review findings within its jurisdiction. The issue of how the delay in Convention adoption from 2001 to 2003 affects this activity would need to be considered.

Some Countries expressed a need to employ their Local Legal Consultants at some time in the future for further work on this issue. The PCU advised that the CFPs had delegation to engage such consultants within the established guidelines.

Agenda Item 11: Regional Cooperation & Replication

The PCU presented a paper on this subject.

The discussion regarding regional linkages reported under agenda item 14 were confirmed.

India informed the meeting that there was dialogue between India and SACEP.

The PCU stated that countries could select their partners based on existing regional structures, practicalities and chances of success, and not on artificial divisions.

Iran stated that their region should be referred to as either 'Persian Gulf' or 'ROPME Sea Area'.

Brazil suggested that an international consultant should facilitate reaching an action plan. UNDP suggested invitations to regional conferences could be extended to other Pilot Countries so that they can gain experience.

Some countries queried what was intended under the 'study tours' activity of the regional replication component of the programme. The PCU advised that the original intention was to fund 'study tours' by personnel from neighbouring countries to each demonstration site, to enable them to learn from the pilot countries. However, the PCU suggested that it might also be valuable for the programme to partially fund a study tour for two representatives from each pilot country, to one of the developed countries recognised as being advanced in ballast water management (e.g. Australia), with supplementary support from that country.

UNDP-GEF noted the need for PCU to schedule to work with individual countries to jump-start regional replication activities and strongly encouraged the CFPs to include clear timing in the proposed regional activities included in the revised National Workplans.

The PCU suggested that for those pilot countries where there had been limited regional progress to date, a more systematic approach be adopted. The lessons learnt in the Black Sea and Baltic Sea should be considered, noting that each region is different.

Agenda Item 12: Resourcing & Financing

The PCU presented a paper on this subject.

The PCU stated that Case Studies had been completed for all six countries and would be published in first quarter of this year. These could be used by the countries to raise political awareness and engender financial support from government.

The PCU noted that the Black Sea had been successful in reaching agreement on the Regional Action Plan but needed financial resources to implement. There was a plan to approach EU to obtain funding.

India suggested that PCU needed to develop models for resourcing and financing.

The PCU advised that it proposed to award a consultancy in early 2002 to review resourcing and financing mechanisms and develop models for potential use of countries during and beyond the life of the Programme.

IUCN suggested they might help in providing an environmental economist for this study.

UNDP stated that a strategy for co-funding was needed at country level, developed by each CFP. The Donor Conference should only endorse what has already been agreed with the donors.

The Chairman of MEPC, who was due to leave, commented that the meeting had been very productive and thanked the PCU and India. He asked that MEPC be kept informed, as the programme was assisting not just the developing countries and assured the participants that he will continue to promote GloBallast from his office.

The IMO representative, who was also due to leave, congratulated everyone on their work for success of the meeting and was impressed by the volume of work achieved by the PCU and the pilot countries. He stated that Ballast Water is high on IMO's agenda and this GEF Project is part of the strategy of IMO to address the issue.

The last session of the meeting was chaired by the UNDP-GEF representative.

Agenda Item 13: TV Documentary

The PCU presented a paper on this subject.

Several countries supported the concept in principle, subject to various issues being addressed.

South Africa expressed concerns about the level of the budget required (US\$500K).

The PCU stated that if the Programme provided US\$200K in seed-funding, a further US\$300K would be sought from co-financiers. Approximately US\$80K of the seed-funding could come from re-allocation of the PCU communication budget, and each country could allocate US\$20K from its national budget to make up the \$200K.

INTERTANKO stated that it has investigated producing documentaries in the past and that the proposed budget seemed realistic. INTERTANKO also stated that it supported the concept and would consider co-sponsoring production.

Several countries stated that in order to support this activity, the documentary would have to be produced in their languages as well as English (e.g. dubbed or sub-titles) and available for broadcast on their national networks.

UNDP-GEF stated that copyright must remain with the programme or UNDP-GEF would not fund it. UNDP-GEF also advised that an arrangement had been entered into with National Geographic Channel to produce a documentary on the UN Atlas of the Seas project, under which copyright remained with the UN. This provides a potential model.

FOEI representative suggested that the TV documentary will contain aspects that can appeal to the spiritual and cultural traditions of the target audience.

It was agreed that the PCU would develop the project document to address these comments, and re-circulate for all parties to consider further. In the meantime, each country would reserve US\$20K from its national budget for potential use for this activity.

Agenda Item 5: NGO/Industry information papers regarding involvement in the ballast water issue

Presentations were received from INTERTANKO, IUCN and FOEI.

A feature of the INTERTANKO presentation was the design of open bow vessels as a potential alternative to ballast exchange at sea.

A feature of the IUCN presentation was general endorsement and support for the GloBallast Programme and identification of areas of potential collaboration between IUCN and the Programme. The PCU agreed to follow this up with IUCN.

Other matters

As a general comment the FOEI representative stated that whether the GloBallast Project has had a significant impact on preventing the introduction of harmful aquatic organisms would only be known in the long term. In the case of ballast water introductions perhaps the journey will have been more important than the arrival.

The UNDP-GEF representative and session Chairman summarized the discussions on the future time schedule by stating that the independent evaluation of the programme by UNDP-GEF would be sometime in September 2002. An additional agenda item on this subject would be needed for the next GPTF. He also stressed that an exact date for the 4th GPTF in China is urgently needed. With regard to resourcing and financing he suggested that it would be necessary to visit individual donors. If the Strategic Directions/Donor Conference is in 1st quarter 2003, the donor mission should be in December 2002. An appropriate consultant may be able to help with this. PCU was advised to draft a budget description and Terms of Reference for the conference consultant.

PCU informed that the revision of the PIP and budget to account for the 12 month extension leaves a total of US\$636,000 available for each country, and advised CFPs to revise their National Workplans accordingly, including reserving US\$20K for the documentary. PCU thanked all parties and especially India for ensuring a highly productive meeting and made a plea to the CFPs to submit their revised National Workplans and budgets as soon as possible.

The session Chairman expressed his satisfaction with the substantial achievements of GloBallast and the very productive meeting, which was described as a real success. He also addressed a vote of thanks to the representatives of the host country and to the PCU for their efforts in organizing the meeting.

**Appendix 3:
Project Implementation Plan (PIP)
(January 2002)**

UNITED NATIONS DEVELOPMENT PROGRAMME

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

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

Project Title:

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

Project Short Title:

Global Ballast Water Management Programme (GloBallast)

The project document for this project (signed 2 February 2000) is hereby reviewed to reflect:

1. The revision of the Project Implementation Plan (PIP) and the project budget to reflect the extension of the duration covered by the project document until 29 February 2004 and the changes made to the "Revised Indicative Three Year Workplan" (July 2000) and to incorporate the newly recommended activities in accordance with the recommendations of the 16-18 January 2002 Global Project Task Force Meeting held in Goa, India (revision D); (see revised PIP, Attachment 1).
2. The revision of the project budget to correspond with the revised PIP (see budget in Attachment 1).

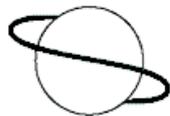
Current Budget (A)	US\$ 6,720,000
Revised Budget (B)	US\$ 6,720,000
Net increase/decrease	US\$ 0
Current AOS (A)	US\$ 672,000
Revised AOS (B)	US\$ 672,000
Net increase/decrease	US\$ 0

On behalf of:	Signature	Date	Name/Title
UNDP	_____	_____	Andrew Hudson Principal Technical Adviser International Waters
IMO	_____	_____	Koji Sekimizu Director, Marine Environment Division



Project Implementation Plan (PIP)

(January 2002)



A cooperative initiative of
the Global Environment Facility, the United Nations Development Programme and the
International Maritime Organization

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1. Introduction & Background

A full description of the GEF/UNDP/IMO project ‘Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries’ (hereafter referred to by its short-title of ‘Global Ballast Water Management Programme’) is contained in the UNDP Project Document GLO/99/G31/A/1G/19. That document outlines the following elements of the project:

- A. Context;
- B. Strategy;
- C. Development Objectives; Immediate Objectives; Outputs and Activities;
- D. Inputs;
- E. Risks and Prior Obligations;
- F. Institutional Framework, Coordination and Administration;
- G. Monitoring, Reporting and Evaluation;
- H. Legal Context;
- I. Work Plan; and
- J. Budget

It was endorsed by the six pilot countries (Brazil, China, India, Iran, South Africa and Ukraine), approved by the GEF Council and signed by UNDP and IMO in 1999.

With the establishment of the Programme Coordination Unit (PCU) at IMO and the commencement of project execution, one of the first tasks of the PCU has been to review the Project Document and to develop from it a practical Project Implementation Plan (PIP). The PIP is based on the Project Document but updates the Outputs and Activities components of section C and sections I. Workplan and J. Budget. The other sections of the original Project Document are not repeated in the PIP. The Project Document should be referred to in relation to those sections.

The PIP is intended to improve programme delivery by streamlining and rationalising implementation as far as possible. The original Project Document is found to be too complex and repetitive for day-to-day implementation purposes of the PCU and Country Project Task Forces (CPTFs). Some components and activities present significant opportunities for streamlining (e.g. the original Project Document repeats the establishment of in-country Lead Agencies and Country Focal Points in both Activities 1.A.5 and 1.B1, whereas the PIP rolls these into a single Activity 1.B.1. Original Activities 1.B.2, 2.1 and 2.2 have been integrated to form part of a new Component 2).

Some of the proposed activities required reconsideration from a technical perspective, and other activities that are essential to the success of the programme were not included in the original Project Document (e.g. risk assessment and port baseline surveys). The PIP requires a re-allocation of budget to accommodate these updates, whilst staying within the overall original budget and programme design. .

2. Development Objectives

The broad development objectives of the programme are:

In the long-term;

- assist developing countries to reduce the transfer of harmful organisms from ships’ ballast water.

In the nearer term;

- increase adherence by these countries to the current IMO *voluntary* guidelines on ballast water management, and

- assist these countries to prepare for the implementation of the IMO *mandatory* regime when it comes into force.

3. Immediate Objectives

In order to achieve the broad development objectives, the programme has a number of Immediate Objectives, which are reflected in the programme Components and linked to specific Outputs and Activities. These are:

- Objective 1: Establish effective programme coordination, management and support mechanisms at the national, regional and global levels.
 - Objective 1.A: Establish a Programme Coordination Unit (PCU) and a Global Information & Communication Network at IMO.
 - Objective 1.B: Establish and support a Lead Agency, Country Focal Point and multi-sectoral Country Project Task Force (CPTF) in each country.
 - Objective 1.C: Establish and support a Global Project Task Force to review the programme and to advise the general directions to be followed.
- Objective 2: 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.
- Objective 3: Undertake an initial risk assessment and information gap filling exercise at each demonstration site to provide a clearer understanding of the level and types of risks of introductions that each port faces, as well as the most sensitive resources and values that might be threatened, and the management responses required.
- Objective 4: 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.
- Objective 5: Develop and implement generic and country/port specific compliance monitoring and enforcement programmes, to increase compliance with IMO guidelines and protect identified, country specific most sensitive values at risk.
- Objective 6: Where appropriate, establish and support Regional Project Task Forces to increase regional awareness and cooperation and eventual replication of programme results across each region.
- Objective 7: Identify and secure opportunities for self-financing of the programme during its lifetime and for the sustainable continuation of IMO, Global, regional and national efforts to implement IMO ballast water management provisions.

4. Programme Components, Outputs and Activities

In order to achieve the seven Immediate Objectives, the programme is divided into seven equivalent Components, each with a set of Outputs and Activities, as described below and the following Summary Tables.

Component 1: Programme Coordination & Management

No programme can be effective without coordination and management mechanisms. For this programme, coordination and management mechanisms are divided into 3 sub-components; 1.A: Programme Coordination Unit, 1.B: In-Country Coordination Arrangements and 1.C: Global Coordination Arrangements.

Sub-component 1.A: Programme Coordination Unit

The first step towards implementing the programme is to create an IMO based Programme Coordination Unit (PCU). The PCU will ensure effective programme coordination and support (information, communications, expert assistance, program implementation capacity and evaluation and assessment) and bring cohesiveness and consistency to programme implementation through the establishment of a global support system .

This sub-component, among other things, creates within the IMO in London a PCU comprised of two (2) professionals, an Associate Program Officer (provided a donor can be found), requisite administrative and technical support and backstopping support from the permanent staff of the IMO. The work of the PCU is supported by the programme over the four years of the programme on a declining basis. It is particularly important that IMO be centrally involved as they create for the programme, as noted by the GEF STAP review, access to officials and programs in countries where many ships are registered, such as Panama, Liberia, and Norway, whose positions, along with classification societies, will be crucial for the development of future regulations.

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

Sub-component 1.B: In-Country Coordination Arrangements

Work undertaken during the PDF-B phase of the programme (GLO97/G41) found that no country's single agency had been given or had assumed lead responsibility for work related to the ballast water issue. Without delegation or assumption of leadership on the part of any specific agency, it is impossible to address the issue effectively or at all. One of the priority recommended barrier removal activities is the creation of a Lead Agency in each pilot country that has overall responsibility for development of the port-specific and country-specific strategies that are the principal objective of this programme. The Lead Agency, through a Country Focal Point (CFP), would be responsible for the creation and convening of the necessary inter-ministerial and multi-sectoral Country Project Task Force (CPTF) and would also be responsible for the development and implementation of the necessary informational, educational and participation activities that are key to programme success. Provision of GEF resources would enable recruitment of a CFP Assistant in each country to assist in the coordination and implementation of programme activities.

Sub-component 1.C: Global Coordination Arrangements

The Global Project Task Force (GPTF) will be the highest advisory body of the project. This will comprise representatives of GEF, UNDP, IMO and the six participating countries. The shipping industry, environmental NGOs and possible other parties that are able to contribute to the programme in a meaningful way will also be invited. The GPTF will meet once a year, and be hosted either by IMO or one of the pilot countries. The PCU will act as the Secretariat to the GPTF.

Component 2: Communication, Education and Awareness Raising

The most significant barrier to action on ballast water transfer has been identified within the PDF-B process, and by other observers, as the lack of awareness about the existence and potentially catastrophic

consequences of the introduction of unwanted organisms. Without adequate information on the actual and potential seriousness of impacts, actions to remediate the problem will not be taken.

The PCU will assume an important role in the activities related to this component through the coordination and communication of real-life case studies that demonstrate the threats and impacts posed by introduced marine species. These case studies will be as relevant as possible to the six demonstration sites. They will be undertaken by consultants on contract to the PCU, with significant input and support from each CFP/CPTF. Communication of the case studies to all stakeholders will receive highest priority.

The participating countries are likely to have few if any education and awareness raising materials to address or describe problems associated with unchecked ballast water releases. Increasingly, however, there is a growing body of case studies, research, control programs, and public education and information programs that have been and continue to be developed in countries such as Argentina, Australia, Canada, Israel, New Zealand, Brazil and the United States. The PCU will make maximum use of existing case studies and public information and education programmes to generate generic communication, education and awareness raising materials, for use by the pilot countries and others, and will be able to ‘tailor’ materials to meet country-specific needs.

In addition, each pilot country should develop a country/port specific communication workplan. This will be done through a country communication workshop, to be held in each pilot country early in the programme. These workshops will be assisted by the PCU (in particular the Technical Adviser, who has primary responsibility for communication matters in the PCU), and involve the CFP and relevant members of the CPTF, as well as national authorities on communication, education, public participation and community consultation.

Significant resources will be made available by the programme for the implementation of each country’s communication workplan. In addition, the Information/Communication Network established by the PCU under Activity 1.A.3 will play a major part in Component 2 as well.

Component 3: Risk Assessment.

After communication, education and awareness raising, the next foundation for the programme at the port/country level is to conduct port-specific Ballast Water Risk Assessments for each demonstration site. This is important for establishing the level and types of risks of introductions that a particular port faces, as well as the most sensitive resources and values that might be threatened. These will differ from site to site, and will determine the types of management responses that are required.

The current IMO ballast water management guidelines offer states significant flexibility in determining the nature and extent of their programmes. This flexibility is warranted given that nations are still experimenting with approaches. A pilot country may wish to apply its programme uniformly to all vessels which visit or it may wish to attempt to assess the relative risk of vessels to valuable resources and apply the programme selectively to those which are deemed of highest risk.

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

Some nations are experimenting with systems to allow more selective applicability based upon voyage-specific risk assessments because this approach offers to reduce the numbers of vessels subject to ballast water controls and monitoring. The prospect of reducing the numbers of ships to which the program applies is especially attractive to nations that wish to eliminate introductions of target organisms such as

toxic dinoflagellates. More rigorous measures can be justified on ships deemed to be of 'high risk' if fewer restrictions are placed on low risk vessels. However, this approach places commensurate information technology and management burdens on the host country/port and its effectiveness depends on the quality of the information supporting it. The approach may also leave the country/port vulnerable to unknown risks from non-target organisms.

For countries/ports which choose the selective approach, it will be essential that each demonstration site establish an organized means of evaluating the potential risk posed by each vessel entering their port, through a Decision Support System (DSS). Only in this way can they take the most appropriate decision regarding any required action concerning that vessels' ballast water discharge. The DSS is a management system that provides a mechanism for assessing all available information relating to individual vessels and their individual management of ballast water so that, based upon assessed risk, the appropriate course of action can be taken.

Before a pilot country decides on whether to adopt the 'blanket' (i.e. all vessels) approach or to target specific, identified high risk vessels only, a general, first-past risk assessment should be carried out. This should look at shipping arrival patterns and identify the source ports from which ballast water is imported. Once these are identified, source port/discharge port environmental comparisons should be carried out to give a preliminary indication of overall risk. This will greatly assist the government to assess which approach to take. The programme will support these initial, 'first-past' risk assessments as a consultancy on contract to the PCU. The CFP/CPTF, including the local port and shipping industry, will play a key role in providing data on shipping movements, source ports, ballast water management patterns, and coastal and marine resources and environmental conditions. The PCU consultant, in conducting the risk assessment in each pilot country, will identify country counterpart(s) and include them in the study process as part of the capacity building objectives of the programme, so as to allow each country to undertake its own risk assessments in future.

It is also necessary to conduct baseline port biota surveys in each demonstration site. This is vital for assessing existing natural conditions and the presence or absence of introduced marine species. Such surveys are fundamental to the programme. The programme will support initial baseline surveys in each port, through provision of an expert to assist in survey design and to provide in-country training, and through provision of US\$50K per demonstration site. The PCU will also provide standardised port survey protocols, including for data management. Actual in-country work should be undertaken by the in-country marine science community (a member of the CPTF). Once the initial baseline surveys are conducted with programme support, they should be conducted on an ongoing basis, as a long-term biological monitoring programme for the port. This will allow any existing introductions to be tracked and managed and any new introductions to be detected and responded to. This ongoing effort will have to be resourced in-country.

All outputs of Component 3 will be vital for identifying information gaps and defining and clarifying the nature of the threats posed by ballast water introductions and the most sensitive resources and values at risk at each demonstration site. This component is therefore vital to shaping the development of each country's response to the issue.

Component 4: Ballast Water Management Measures

The essence of this programme is twofold. First it is intended to result in the development of a generic, developing country based, ballast water management measures which can be adopted in other countries. Second, and to the extent possible, the programme will facilitate the development of country and port specific measures, including national legislation, to achieve effective ballast water management consistent with IMO provisions. Work undertaken in the PDF-B phase of the programme and a review of existing ballast water control programs is indicative of the overall strategy that should form the basis for programme development. Ballast water management measures should seek to avoid the adverse economic, environmental, and human health impacts of unwanted, introduced marine species. Such measures should

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

Development and implementation of the actual ballast water management measures that are necessary to minimise the risk of introduced marine species constitutes the ‘backbone’ of the programme at each demonstration site. It is these measures that will produce the practical benefits of the programme, in order to achieve the near-term development objectives of the programme:

- To increase adherence by countries to the current IMO *voluntary* guidelines on ballast water management, and
- To assist countries to prepare for the implementation of the IMO *mandatory* regime when it comes into force.

Ballast water management measures that are developed and implemented at each demonstration site should therefore initially be consistent with the IMO voluntary guidelines (A.868(20)) and eventually adopt the provisions of the IMO mandatory regime as it comes into being. Fortunately, the IMO voluntary guidelines already contain recommended ballast water management measures, and these are supported by Model Shipboard Ballast Water Management Plans already developed by industry. There is no need to develop new measures. What is required is to adapt these measures to local situations and develop activities to implement these measures at each demonstration site effectively. It is of paramount importance that nothing is developed or implemented that is inconsistent with the standardised IMO regime, and that activities are coordinated across all demonstration sites.

To this end, the programme contains a number of activities. These include broad distribution and communication of the current IMO voluntary guidelines and other existing templates and models to all stakeholders (Activity 4.1), and the development and delivery of education and training packages to Lead Agency, port and shipping personnel on how to implement these (Activity 4.2). This will make use of the UN Train-X decentralized course development and sharing system to help participating countries create and adapt course packages which, together, will form a targeted education and training programme.

This component also includes resourcing for a review of existing legislation and regulations relating to ballast water in each pilot country, providing recommendations on what each country needs to do to implement any necessary regulatory changes (Activity 4.3).

In addition, under Component 4 the programme will sponsor a Global Research and Development Symposium (Activity 4.4). This is because existing ballast water management and control methods do not currently provide adequate protection from marine introductions, even when fully implemented. Research and development (R&D) of new ballast water treatment technologies is urgently required. There are currently a range of R&D projects underway by various groups around the World. These are often not well coordinated and some duplication may be occurring. They may also be focussed on conditions prevailing in developed rather than developing countries. An important objective of the programme is to act as a central coordination point, clearing house and knowledge broker for such research, and to ensure that at least some of this R&D is targeted towards the needs of developing countries. The R&D symposium will bring leading authorities on ballast water R&D together, along with pilot country representatives; to review current state of knowledge, enhance networking, communication and cooperation between R&D groups and the programme participants, encourage R&D groups to establish R&D projects in partnership with the pilot countries, establish PCU as central coordination point, clearing house and knowledge broker, help shape R&D agenda to suit developing countries’ needs and communicate outcomes to all stakeholders.

Finally, the National Workplans developed under Activity 1.B.4 will include provision for the implementation of country/port specific ballast water management measures.

Component 5: Compliance Monitoring and Enforcement

Effective implementation of country/port specific ballast water management measures is not possible without compliance monitoring and enforcement (CME) systems.

It is essential that, as each country assesses what it deems to be the most appropriate array of control options, effective CME is established to accomplish two objectives. First, monitoring will be important for each country to measure the extent of compliance with the established requirements. Without monitoring to inform of successful compliance, replication of programme results may not be warranted. Second, country-specific compliance monitoring can serve as an important research tool that can be used to assess the relative efficacy of ballast water management options in a variety of situations, as represented by the six demonstration sites. Thus effective monitoring can both inform and form the ongoing effort to minimize the global risks associated with the ballast water transfer of organisms.

Fortunately, the existing IMO guidelines and related templates and models such as the ICS/INTERTANKO model shipboard ballast water management plan already provide some of the basic components of a compliance monitoring system. In addition, many countries such as Australia, Canada, the EU, New Zealand and the USA already have well developed compliance monitoring systems. The programme will utilise these to develop generic CME systems based on the existing IMO guidelines and the draft Convention currently being developed by the IMO Marine Environment Protection Committee. However, each country will have to assume responsibility for resourcing and financing CME activities after the adoption of the anticipated Convention.

Component 6: Regional Cooperation & Replication

The countries and ports that have chosen to participate in the programme are taking an important first step to facilitate local and national compliance with the current IMO guidelines and expected new international legal instrument. Ports are competitive and it is possible that a port participating in the programme will enact certain requirements that will make other regional ports more attractive to shippers. Regional or Sub-Regional initiatives will be necessary to minimize the possibility that participating ports will be penalized in any way for their programme participation. Further, the programmes that will be developed in each of the six participating countries and ports should to the extent possible be replicated across the region. The formation of the Regional Project Task Forces (RPTFs) is intended to facilitate this process.

Component 7: Resources and Financing

This programme is intended to provide the resources necessary to catalyse national, regional and global action in response to the ballast water issue. It will run for a set time only. Each country and region will have to assume responsibility for resourcing its ballast management arrangements progressively as the programme proceeds, and over the longer term when the programme is completed. A Donor conference is scheduled towards the completion of the programme to establish the benchmarks and medium and long term strategies regarding Ballast Water Management and Control.

This will be progressed through two Activities, Activity 7.1: National Resourcing and Financing and Activity 7.2: Global Donor Conference. The former will focus on breaking dependence on donors and will review the opportunities for self-financing of programme components and future ballast water management arrangements at the national level, on an ongoing basis, pinpointing the potential economic sources and mechanisms. These will be based on the principles of user-pays and polluter pays. The latter will comprise a donor conference using the on-going GEF programme as leverage for the creation of necessary additional donors and the securing of loans, and confirm IMO's support for the continuation of post-programme activity from its regular budget.

Summary Tables Revised Programme Components, Outputs and Activities (January 2002)

COMPONENT 1: Programme Coordination & Management

No programme can be effective without coordination and management mechanisms. For this programme, coordination and management mechanisms are divided into 3 sub-components: 1.A: Programme Coordination Unit, 1.B: In-Country Coordination Arrangements and 1.C: Global Coordination Arrangements.

Sub-component 1.A: Programme Coordination Unit

The first step towards implementing the programme is to create an IMO based Programme Coordination Unit (PCU) to bring cohesiveness and consistency to programme implementation through the establishment of a global support system.

	Success Criteria:	Responsible Parties	Partners	Budget (US\$K)	Budget Notes
Outputs: <ul style="list-style-type: none"> • Programme coordination and management mechanism established and functioning; • Effective coordination between and among all stakeholders. • Programme performance improves over time with input from evaluation and review. 	<ul style="list-style-type: none"> • PCU established and operational. • Info/Coms Network established and functioning. • Programme evaluation and review procedures operating. 			CTA: 600 TA: 00 PA: 214 S Trm Cnsltns: 195 Total: 1009	Salary/benefits. Paid by IMO (ex prog. budget). Salary/benefits. Outsourced support as required.
Activities: Activity 1.A.1: Human Resources: Recruit and hire PCU staff: <ul style="list-style-type: none"> • Chief Technical Advisor (CTA) • Technical Advisor (TA) • Programme Assistant (PA) • Necessary outsourced services Activity 1.A.2: Hardware Organise physical hardware and set-up office at IMO and at each demonstration site.	IMO, UNDP			Hardware: 50 Total: 50	PCU & field IT, comms, furniture etc
Activity 1.A.3: Information and Communication Network (Info/Coms). Develop the information and communication mechanisms necessary for effective programme implementation and replication, including communications and data transfer within and among all stakeholders. <ul style="list-style-type: none"> • Web site/web links/databases/internet communications groups. • Quarterly newsletter. • Library collection and bibliographies. 	PCU/IMO with CFP, CPTF & RPTF support.	Other governments and institutions (esp. Australia, USA and EU), Industry, NGO's.		Web/internet: 5 Newsletter: 100 Docs purchase: 5 Other costs: 40 Total: 150	IMO costs to establish. Compilation, design, layout, printing and distribution, 4/yr x 4 yrs. For library collection. Outsourced support/hardware/database and web-site development.
Activity 1.A.4: PCU Travel Provide resources to enable PCU staff to travel to demonstration sites and other destinations as part of programme coordination role, including attending CPTF/RPTF and other meetings.	PCU			Travel: 200 Total: 200	Airfares, DSA etc over 4 yrs.
Activity 1.A.5: Programme Evaluation and Review. Establish the mechanisms necessary for assessing the successes and areas for improvement as the programme progresses. Arrange annual programme review visits. <ul style="list-style-type: none"> • Communicate review outcomes for programme implementation. 	IMO, UNDP, consultants			Eval. missions: 80 Total: 80	Programme review visits to each country/yr for 4 yrs.

Sub-component 1.B: In-Country Coordination Arrangements

Successful implementation of the programme is vitally dependent on effective in-country coordination arrangements. Without a Lead Agency, Country Focal Point, multi-sectoral Country Project Task Force and other institutional arrangements in each country, the demonstration sites cannot succeed. In-country parties are responsible for developing and implementing country work plans and supporting regional activities.

	Success Criteria: <ul style="list-style-type: none"> Lead Agency and CFP designated and functioning effectively in each country. CFP Assistant engaged and functioning effectively in each country. CPTF formed and functioning effectively in each country. 		Budget (US\$K)	Budget notes
Outputs:	Responsible Parties:	Partners		
<ul style="list-style-type: none"> In-country arrangements established and functioning in each country. 	Country governments with PCU and UNDP support.	Nil	Nil	Country governments to cover costs.
Activities: Activity 1.B.1: Establish Lead Agency and Country Focal Point (CFP) Designate Lead Agency and CFP from that agency in each country. Activity 1.B.2: Support CPTF and CFP Assistant Hire and deploy CFP Assistant in each country. <ul style="list-style-type: none"> Each CFP's to nominate shortlist to PCU. PCU/IMO select/engage. Lead Agency to house Programme to support CPTF and CFP Assistant's activities. 	PCU with CFP, IMO and UNDP support.		Support: 794 Total: 794	Salary, office hardware and support for each CFP Assistant and general CPTF support for 4 yrs.
Activity 1.B.3: Support CPTF Meetings <ul style="list-style-type: none"> Form CPTF in each country. Should be inter-ministerial and cross-sectoral in nature, meet at the call of the Lead Agency and chaired by the CFP or senior representative of the Lead Agency as appropriate. Responsible for programme development, implementation and oversight in each country. Hold meetings. PCU to support meetings. 	CFP to coordinate with PCU support. CPTFs to include all relevant government, industry and NGO groups (refer PCU CPTF Guidelines).	IMO, UNDP Country Offices, CPTF members.	CPTF mtngs: 137,230 Total: 137,230	Basic meeting costs.
Activity 1.B.4: National Workplans Develop and implement a National Workplan for in-country implementation of each of the relevant activities under Components 2 to 7 below.	CPTF – develop and implement. PCU – provide template and support.	CPTF members.	Dev & imp w/plans: 688,370 Total: 688,370K	Support CPTF to develop & implement w/plans

Sub-component 1.C: Global Coordination Arrangements

The Global Project Task Force (GPTF) will be the highest advisory body of the project. This will comprise representatives of GEF, UNDP, IMO and the six participating countries. The shipping industry, environmental NGOs and possible other parties that are able to contribute to the programme in a meaningful way will also be invited.

Success Criteria:		Budget (US\$K)		Budget notes
Outputs: <ul style="list-style-type: none"> GPTF formed and functioning effectively. 		Partners Industry NGO's Sponsors		1 meeting/year for 4 years. 40K per meeting. Travel & meeting costs and correspondence groups as required.
Activities: Activity 1.C.1: Global Project Task Force (GPTF). Establish and run GPTF to formulate and review the programme and advise the general directions to be followed. Seek advice from scientific and technical advisory groups as required. <ul style="list-style-type: none"> Form GPTF and advisory groups. Organize and hold meetings Communicate GPTF outcomes for programme implementation. 		Responsible Parties: PCU – secretariat. Comprises CFPs, UNDP, IMO, Industry, NGOs, Sponsors.		
		GPTF meetings: 160 Adv groups: 80 Total: 240		

COMPONENT 2: Communication, Education and Awareness Raising (CEAR)

Work undertaken during the preparatory phase of the programme resulted in a finding that information about the dangers of ballast water transfers was poor to non-existent in many countries, and constituted a major barrier to action. This lack of information and low level of general awareness of the issue is seen as an extremely important, early priority of the programme to address. One of the priority recommended barrier removal activities is the development of communication, education and awareness raising activities in each pilot country. Accordingly, the following Activities are included in the programme to address communication, education and awareness raising.

<p>Outputs:</p> <ul style="list-style-type: none"> Level of awareness about the ballast water issue, its impacts and potential solutions is raised amongst all stakeholders in participating countries, resulting in increased commitment to implementing the programme and addressing the issue in general 	<p>Success Criteria:</p> <ul style="list-style-type: none"> Programme identity established Case studies completed and communicated to stakeholders. Generic communication materials produced. Country communication workshops held and workplans developed. Country communication workplans implemented. 	<p>Partners</p>	<p>Budget (US\$K)</p>	<p>Budget notes</p>
<p>Activities:</p> <p>Activity 2.1: Programme Identity Design and implement programme identity, including logo, stationary and standards for application.</p>	<p>PCU, external suppliers.</p>		<p>Design/develop: 3 Total: 3</p>	<p>Materials to be developed and produced professionally using external supplier(s).</p>
<p>Activity 2.2: Generic Communication, Education and Awareness Raising Materials PCU to produce a range of generic communication, education and awareness raising materials for use by PCU, IMO and in countries, in suitable languages.</p> <ul style="list-style-type: none"> Standardised slide presentations. Programme brochure. Educational posters, pamphlets and other products. TV documentary. 	<p>PCU, external suppliers – carry out. PCU, IMO, countries and others to use.</p>	<p>Industry, IMO-MEPC, Australia, EU, US, other countries with relevant experience.</p>	<p>Develop/produce: 113,335 Total: 113,335</p>	<p>Materials to be developed and produced professionally using external supplier(s) where necessary. Maximum use to be made of existing materials, outputs of Activity 2.2. and internal/IMO expertise and facilities.</p>
<p>Activity 2.3: Case Studies. Review and prepare case studies demonstrating the economic, environmental and public health dangers of ballast water introductions (focused on/relevant to demonstration sites).</p> <ul style="list-style-type: none"> Carry out case studies. Communicate to all stakeholders. 	<p>PCU – manage. Consultants – carry out. CFP – assist.</p>	<p>IMO-MEPC, Australia, EU, US, other countries with relevant experience.</p>	<p>Total: 102 Contracts: 102 Total: 102</p>	<p>Fees/travel to research, prep & communicate case studies, ongoing.</p>
<p>Activity 2.4: Country Communication Workshops & Workplans Workshop in each country to develop national communication workplans, including strategies and activities for education and awareness raising and community participation.</p> <ul style="list-style-type: none"> Plan workshops. Hold workshops - develop National Communication Workplans. Include utilisation of outputs of Activity 2.3. 	<p>CFP/CPTF with PCU support.</p>	<p>Industry, NGOs, community groups.</p>	<p>Wkshps: 46 Total: 46</p>	<p>In-country workshop costs.</p>
<p>Activity 2.5: Implement National Communication Workplans. Implement the activities contained in the workplans.</p>	<p>CFP/CPTF with PCU support.</p>	<p>Industry, NGOs, community groups.</p>	<p>Implementation: 517,665 Total: 517,665</p>	<p>Countries to develop National budgets within their Workplans</p>

COMPONENT 3: Risk Assessment

After communication, education and awareness raising, the next foundation for the programme at the port/country level is to conduct port-specific Ballast Water Risk Assessments for each demonstration site. This is important for establishing the level and types of risks of introductions that a particular port faces, as well as the most sensitive resources and values that might be threatened. These will differ from site to site, and will determine the types of management responses that are required.

It is also necessary to conduct port biota surveys in each demonstration site. This is vital for assessing existing natural conditions and the presence or absence of introduced marine species. Such surveys are fundamental to the programme, and should be conducted on an ongoing basis, as a long-term biological monitoring programme for the port. This will allow any existing introductions to be tracked and managed and any new introductions to be detected and responded to.

Accordingly, the following Activities are included in the programme to address risk assessment:

<p>Outputs:</p> <ul style="list-style-type: none"> All levels of management and all stakeholders have a clearer understanding of the level and types of risks of introductions that each port faces, as well as the most sensitive resources and values that might be threatened, and the management responses required. 	<p>Success Criteria:</p> <ul style="list-style-type: none"> Risk assessment completed for each demonstration site. Baseline port biota surveys completed for each demonstration site. System in place for future surveys. Information gaps identified and activities defined to fill gaps. 			
<p>Activities</p>	<p>Responsible Parties</p>	<p>Partners</p>	<p>Budget (US\$K)</p>	<p>Budget notes</p>
<p><i>Activity 3.1: Ballast Water Risk Assessment</i> Review existing information regarding the quantity, quality and sources of current ballast water discharges at each demonstration site and use source port/dischage port environmental comparisons to determine the existing and potential threats on the economy, environment, and human health. Include training/capacity building of country counterparts.</p> <ul style="list-style-type: none"> Determine/agree optimum risk assessment methodology and adopt standard protocol. Undertake risk assessment. Communicate findings to stakeholders. 	<p>PCU – manage. GPTF Adv. Grps – advise. Consultants – undertake. CFPs/CPTF’s and industry – assist/support.</p>	<p>IMO/UNDP Country Offices/WHO/FAO</p>	<p>PCU contracts: 265 In-country costs: 16,000 Total: 281,000</p>	<p>Fees, travel and costs to undertake the risk assessments, including training and capacity building of country counterparts.</p>
<p><i>Activity 3.2: Port Baseline Surveys</i> Undertake review of existing data on native biodiversity and introductions at each site and implement long-term port survey programme to detect introductions.</p> <ul style="list-style-type: none"> Determine/agree optimum port survey methodology and adopt standard protocol. Undertake port surveys – inc. training of in-country marine science capability. Communicate findings to stakeholders. 	<p>PCU – manage. GPTF Sci. Adv. Grp – advise. Consultant – training/advise. In-country marine science community – implement. CFP/CPTF – support.</p>	<p>Countries with port survey experience (e.g. Australia, USA).</p>	<p>Contracts: 100 1st surveys: 391,400 Total: 491,400</p>	<p>To set-up survey protocols and train/advise in-country survey teams. Includes travel to countries. 50K per port, includes field sampling, analysis, archiving and reporting. Additional funds required for future annual surveys (should be an ongoing programme).</p>
<p><i>Activity 3.3: Information Gap Filling</i> Use outputs of Activities 3.1 and 3.2 and ongoing review of all activities to ascertain existing information gaps at each site and define the activities needed to fill those gaps.</p>	<p>PCU with CFP/CPTF support.</p>	<p>IMO/UNDP Country Offices</p>	<p>Nil</p>	<p>No explicit costs, part of general, ongoing PCU, CFP and CPTF activities.</p>
<p><i>Activity 3.4: International Port Survey Workshop</i> Build on GloBallast Port Surveys to develop regional/global survey and early warning system.</p>	<p>PCU with host country support.</p>	<p>Other countries advanced in surveys..</p>	<p>50K</p>	<p>Travel and workshop costs.</p>

COMPONENT 4: Ballast Water Management (BWM) Measures

Development and implementation of the actual ballast water management measures that are necessary to minimise the risk of translocation of harmful aquatic organisms constitutes the ‘backbone’ of the programme at each demonstration site. It is these measures that will produce the practical benefits of the programme, in order to achieve the near-term development objectives of the programme:

- To increase adherence by countries to the current IMO *voluntary* guidelines on ballast water management, and
- To assist countries to prepare for the implementation of the IMO *mandatory* regime when it comes into force.

Ballast water management measures that are developed and implemented at each demonstration site should therefore initially be consistent with the IMO voluntary guidelines (A.868(20)) and eventually adopt the provisions of the IMO mandatory regime as it comes into being. Fortunately, the IMO voluntary guidelines already contain recommended ballast water management measures, and these are supported by a Model Shipboard Ballast Water Management Plan already developed by industry. There is no need to develop new measures. What is required is to adapt these measures to local situations and develop activities to implement these measures at each demonstration site effectively. It is of paramount importance that nothing is developed or implemented that is inconsistent with the standardised IMO regime, and that activities are coordinated across all demonstration sites.

<p>Outputs:</p> <ul style="list-style-type: none"> • Effective ballast water management measures are implemented at each demonstration site to reduce the transfer of aquatic organisms in ballast water, consistent with IMO guidelines and standards. 	<p>Success Criteria:</p> <ul style="list-style-type: none"> • IMO guidelines & industry models widely promulgated. • Education and training packages developed and delivered, with system for ongoing delivery. • Legislation reviews completed for each country and recommendations considered. • Global R&D Symposium held. 	<p>Partners</p> <p>Industry.</p>	<p>Budget (US\$K)</p> <p>Translatios: 20 Distribution: 2 Total: 22</p>	<p>Budget notes:</p> <p>Outsourced. Postage etc.</p>
<p><i>Activity 4.1: Translate/disseminate IMO Voluntary Guidelines & ICS/INTERTANKO Model</i></p> <p>Enhance use of existing guidelines and model at the demonstration sites:</p>	<p>PCU – manage. CFPs/CPTF’s – promulgate.</p>	<p>Industry.</p>	<p>Dev T-X methods: 50 Crse dev wkshp: 70 Nat training: 180</p>	<p>Contract fees/travel. Run wkshp. Deliver 1st training courses in each country. Additional resources required for ongoing delivery of training courses.</p>
<p><i>Activity 4.2: Education and Training Packages</i></p> <p>Develop and deliver generic and adaptable course packages for targeted education and training of ship operators, masters and crews, port authorities, lead agencies and other parties, on the ballast water issue in general and on the practical implementation of the IMO guidelines and the anticipated Convention.</p> <ul style="list-style-type: none"> • Develop package, considering UN TRAIN-X methodology and in-country maritime training institutions. • Deliver training courses in each country and validate. • Ongoing delivery by national/regional training units. 	<p>PCU – manage. Consultant – develop. Country training institutes – deliver. WMU, IMA, CPF/CPTF – support.</p>	<p>Industry.</p>	<p>Total: 300</p>	<p>Local enstlnts: 155K Advice/coordn: 30K Total: 185K</p>
<p><i>Activity 4.3: Legislation and Regulations</i></p> <p>Review existing domestic legislation and regulations relating to ballast water and recommend any changes necessary for the implementation of the IMO voluntary guidelines.</p> <ul style="list-style-type: none"> • Consultant to review existing legislation. • CPTF’s to consider/ implement recommendations. 	<p>PCU – manage. Consultants – undertake. CPTF – implement.</p>			

Component 4 continued.

Activities:	Responsible Parties	Partners	Budget (USSK)	Budget notes:
<p>Activity 4.4 Global R&D Symposium Hold a Global symposium to bring together leading authorities on ballast water treatment R&D;</p> <ul style="list-style-type: none"> • review current state of knowledge, • enhance networking, communication and cooperation between R&D groups, • establish PCU as central coordination point, clearing house and knowledge broker, • help shape R&D agenda to suit developing countries' needs and • communicate outcomes to all stakeholders. 	<p>PCU – plan and hold workshop</p>	<p>R&D community. Industry. Country governments.</p>	<p>Symposium: 60 Total: 60</p>	<p>Travel and holding of 1st symposium. Co-sponsors to be found for subsequent symposiums.</p>
<p>Activity 4.5: National Ballast Water Management Plans Assist each pilot country to develop a National Ballast Water Management Plan</p> <ul style="list-style-type: none"> • develop template and provide to countries • use template to develop National plans • get plans approved by government • implement plans 	<p>PCU & consultant – develop template and assist countries to use it. CFP Assistants/CPTFs - develop plans etc</p>		<p>10 Total: 10</p>	<p>10K. Implementation of the plans to be a National responsibility.</p>

COMPONENT 5: Compliance Monitoring and enforcement (CME)

Effective implementation of ballast water management measures under the IMO guidelines is not possible without compliance monitoring and enforcement systems.

Outputs:		Success Criteria:		
<ul style="list-style-type: none"> Generic Compliance Monitoring and Enforcement Systems developed. 		<ul style="list-style-type: none"> Pilot countries prepared to adapt generic CME systems after adoption of the anticipated Convention. 		
Activities:	Responsible Parties	Partners	Budget (US\$K)	Budget notes:
<p><i>Activity 5.1: Develop generic CME Systems.</i></p> <ul style="list-style-type: none"> Consultant to adapt relevant components of IMO guidelines and other standardised protocols to develop compliance, monitoring and enforcement system. 	PCU – manage. Consultant – develop procedures. Lead Agency, CPTF – Support.	Industry.	Contracts: 20 Total: 20	Fees/travel to develop system.
<p>Activity 5.2: Ballast Water Sampling Equipment</p> <ul style="list-style-type: none"> Purchase ballast water sampling equipment for use in compliance monitoring at each site. 	PCU – purchase/provide equipment.	Industry. Countries with relevant experience – Australia, Canada, EU, New Zealand and USA,	Equipment: 60 Total: 60	10K/site.
<p>Activity 5.3: In-country CME Personnel & Training</p> <ul style="list-style-type: none"> Lead agency to designate compliance monitoring and enforcement officials for placement at the demonstration sites, PCU to coordinate training of these personnel in the CME system and use of ballast water sampling equipment by organizing international workshops. 	Lead Agency – recruit/designate personnel. PCU – resource and support training		Training costs: 180 Total: 180	Funds for initial training in each country. Countries to resource thereafter.
<p>Activity 5.4: Adapt and Implement CME Systems in each pilot country</p> <ul style="list-style-type: none"> Support Lead Agency to implement compliance, monitoring and enforcement system at each site after the adoption of the anticipated Convention. 	Lead Agency – implement. PCU – support		Implement the systems: 120 Total: 120	20K is available per country to initiate this.
<p>Activity 5.5: International Ballast Water Sampling Workshop</p> <p>Review and establish international standards for ballast water sampling equipment and methods and train GloBallast Pilot Countries in these techniques for implementation in home countries and regions.</p>	PCU with host country support.	Countries advanced in BW sampling.	Workshop: 50K Total: 50K	Travel and workshop costs.

COMPONENT 6: Regional Replication

A key objective of the programme is to replicate successes at each demonstration site throughout each region represented by these sites. Creation of effective and active Regional Project Task Forces will help to reduce the extent to which competing ports in the region may adopt the lowest common denominator in regard to ballast water controls to lure business away from pilot demonstration sites. Regional Project Task Forces are instrumental in efforts to replicate programme results beyond the participating countries.

<p>Outputs:</p> <ul style="list-style-type: none"> • Creation of a regional support base for the work of the programme. • Increased likelihood of regional cooperation on the ballast water issue. • Creation of mechanisms to ensure regional level replication of programme demonstration site results. • Facilitated process of regional level involvement in the implementation of IMO ballast water related provisions. • Creation of an ongoing, ballast water related communications capacity at the regional level. <p>Activities:</p> <p>Activity 6.1 Form Regional Project Task Forces Create as appropriate and in cooperation with participating countries, six regional or sub-Regional Project Task Forces (RPTFs) to support and learn from the experience of the participating countries and ports.</p> <p>Activity 6.2. <i>RPTF Meetings and Study Tours</i> Provide for RPTF meetings and ensure effective communications between RPTF and the programme</p>	<p>Success Criteria:</p> <p>Demonstration sites are protected against competing regional ports abiding by poor to no ballast water management practices.</p> <p>Programme outputs employed by other regional countries.</p> <p>A formalized communications system through identified lead agencies is in place and functioning at the regional level.</p> <p>Programme regions are an increasingly forceful and effective presence in international/IMO fora where the ballast water issue is being discussed and policy formulated.</p>	<p>Partners</p> <p>Governments in regional countries</p>	<p>Budget (USSK)</p> <p>Travel: 100</p> <p>Total: 100</p> <p>537K</p>	<p>Budget notes:</p> <p>Travel to initiate RPTFs.</p> <p>Study tours and meetings</p>
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COMPONENT 7: Resources and Financing

In addition budgetary resources provided through GEF and the participating countries for 4 years, 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.

Outputs: <ul style="list-style-type: none"> Potential resourcing and financing mechanisms are identified for national, regional and global ballast water management arrangements in accordance with IMO guidelines/requirements. 	Success Criteria: <ul style="list-style-type: none"> Potential in-country resource and financing mechanisms identified. Identification of specific interested donors. Active participation of a broad array of donors at the donor conference. Active participation of developing countries from all regions. Specific commitments of donors (including IMO) to continuing post programme work. 			
Activities: <p><i>Activity 7.1: National Resourcing and Financing</i> Review the opportunities for self-financing of programme components and future ballast water management arrangements at the national level on an ongoing basis, pinpointing the potential economic sources and mechanisms. Based on the principles of user-pays and polluter pays, consider potential for port fees/shipping levies.</p> <p><i>Activity 7.2: Donor Conference</i> Hold Donor conference of all relevant stakeholders, including potential donors, to consider the future of GloBallast, based on the GloBallast Advanced concept, and identify resourcing and financing options.</p>	Responsible Parties	Partners	Budget (US\$K)	Budget notes
	PCU – advise. Lead Agency/CPTF – support and implement.	Industry, IMO, UNDP, WB, Regional Development Banks, National and International Donors.	In country staff time	Donor Conf: 68 Total: 68 Costs of the conference.

Acronyms in this Table: APR = Annual Project Review. BW = Ballast Water. BWM = BW Management. CEAR = Communication, Education & Awareness Raising. CFP = Country Focal Point. CME = Compliance Monitoring & Enforcement. CPTF = Country Project Task Force. DSA = Daily Subsistence Allowance. GPTF = Global Project Task Force. PCU = Programme Coordination Unit. RPTF = Regional Project Task Force(s). TPR = Tripartite Review

REVISED INDICATIVE FOUR YEAR WORKPLAN (January 2002)

		2000												2001											
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
PERSONNEL																									
Chief Technical Advisor	1.A.1																								
Technical Adviser	1.A.1																								
Consultancies: Short-term; Miscellaneous	1.A.1																								
Consultancies: Info/Comms Network	1.A.3																								
Consultancies: Develop Train-X methodology	4.2																								
Administrative Assistant	1.A.1																								
MONITORING AND EVALUATION																									
Evaluation: TPR, APR missions	1.A.5																								
PCU travel and DSA	1.A.4																								
Travel to establish RPTFs	6.1																								
Travel, Donor Conference	7.1																								
CONTRACTS																									
Prepare Case Studies	2.3																								
Develop & implement National Workplans	1.B.4																								
Support CPTFs including hiring of assistants	1.B.2																								
Programme Identity & CEAR Materials + TV Doco.	2.1/2.																								
Implement National Comms Workplans	2.5																								
Conduct Risk Assessments	3.1																								
Coordinate Port Baseline Surveys	3.2																								
Conduct Legislation/Regulation Reviews	4.3																								
Develop CME Systems	5.1																								
Implement CME Systems	5.4																								
In-country CME Personnel & Training	5.3																								
BWM Train-X course development workshop	4.2																								
Deliver In-country BWM Training (Train-X)	4.2																								
MEETINGS																									
CPTF	1.B.3																								
GPTF	1.C.1																								
Country Communication Workshops	2.4																								
R&D Symposium	4.6																								
RPTF and Evaluation	6.2																								
Donor Conf.	7.2																								
Int. Port Survey Workshop	3.4																								
Int. BW Sampling Wkshop.	5.5																								
EQUIPMENT																									
Expendable Equipment (PCU)	1.A.2																								
BW Sampling Equipment	5.2																								
MISCELLANEOUS																									
Miscellaneous & Sundries																									
Reporting Costs																									

2002												2003												2004				
J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M		
																												PERSONNEL
																											1.A.1	Chief Technical Advisor
																											1.A.1	Technical Adviser
																											1.A.1	Consultancies: Short-term; Miscellaneous
																											1.A.3	Consultancies: Info/Comms Network
																											4.2	Consultancies: Develop Train-X methodology
																											1.A.1	Administrative Assistant
																												MONITORING AND EVALUATION
																											1.A.5	Evaluation: TPR, APR missions
																											1.A.4	PCU travel and DSA
																											6.1	Travel to establish RPTFs
																											7.1	Travel, Donor Conference
																												CONTRACTS
																											2.3	Prepare Case Studies
																											1.B.4	Develop & implement National Workplans
																											1.B.2	Support CPTFs including hiring of assistants
																											2.1/2.	Programme Identity & CEAR Materials + TV Doco.
																											2.5	Implement National Comms Workplans
																											3.1	Conduct Risk Assessments
																											3.2	Coordinate Port Baseline Surveys
																											4.3	Conduct Legislation/Regulation Reviews
																											5.1	Develop CME Systems
																											5.4	Implement CME Systems
																											5.3	In-country CME Personnel & Training
																											4.2	BWM Train-X course development workshop
																											4.2	Deliver In-country BWM Training (Train-X)
																												MEETINGS
																											1.B.3	CPTF
																											1.C.1	GPTF
																											2.4	Country Communication Workshops
																											4.6	R&D Symposium
																											6.2	RPTF and Evaluation
																											7.2	Donor Conf.
																											3.4	Int. Port Survey Workshop
																											5.5	Int. BW Sampling Wkshp.
																												EQUIPMENT
																											1.A.2	Expendable Equipment (PCU)
																											5.2	BW Sampling Equipment
																												MISCELLANEOUS
																												Miscellaneous & Sundries
																												Reporting Costs

REVISED PROGRAMME BUDGET (US\$) (January 2002)

Budget Line	Description/Activity	Act. No.	Total	2000	2001	2002	2003	2004
	PERSONNEL							
	International Experts							
11.01	Chief Technical Advisor	1.A.1	600,000	134,484	118,005	150,000	150,000	47,511
11.02	Technical Adviser	1.A.1	IMO					
	Consultants							
11.51	Consultancies: Short-term; Miscellaneous	1.A.1	195,000	37,572	50,407	50,000	50,000	7,021
11.52	Consultancies: Info/Comms Network	1.A.3	150,000	21,344	42,321	43,167	43,167	
11.53	Consultancies: Develop BWM Train-X	4.2	50,000	--		50,000		
	Administrative support personnel							
13.01	Administrative Assistant	1.A.1	214,000	23,904	50,390	60,000	60,000	19,706
	Monitoring and evaluation							
15.01	Evaluation: TPR, APR missions	1.A.5	80,000	46	22,536	20,000	20,000	17,418
	Mission costs							
16.01	PCU travel and DSA	1.A.4	200,000	42,867	34,617	45,000	45,000	32,516
16.02	Travel to establish RPTF's	6.1	60,000	27,979	24,288	7,733		0
16.03	Travel, Donor Conference	7.1						0
	SUB-TOTAL PERSONNEL		1,549,000	288,196	342,564	425,900	368,167	124,173
	CONTRACTS							
21.01	Prepare Case Studies (PCU)	2.3	100,000		26,700	73,300		
21.01	Prepare Case Studies (Pilot countries)	2.3	2,000		2,000			
21.02	Develop & implement National Workplans	1.B.4	688,370	91,918		215,800	241,570	139,082
21.03	Support for CPTFs including hiring assistants	1.B.2	794,000		254,199	250,000	2,500	287,301
21.04	Programme Identity & CEAR Materials	2.1/2.2	116,335		27,264	50,000	25,736	13,335
21.05	Implement National Communication Plans	2.5	517,665		3,009	250,000	250,000	14,656
21.06	Conduct Risk Assessments (PCU)	3.1	265,000			265,000		
21.06	Conduct Risk Assessments (Pilot Countries)	3.1	16,000			16,000		
21.07	Coordinate Port Surveys (PCU)	3.2	100,000		100,000			
21.07	Conduct Port Surveys (Pilot countries)	3.2	391,400		161,461	224,939	5,000	
21.08	Conduct Legislation Reviews (PCU)	4.3	30,000			30,000		
21.08	Conduct Legislation Reviews (Pilot Countries)	4.3	155,000		344	154,656		
21.09	Reprint IMO BWM Guidelines	4.1	22,000		812	21,188		
21.10	Develop CME Systems	5.1	20,000			20,000		
21.11	Implement CME Systems	5.4	120,000				120,000	
21.12	Develop National BWM Plan Template	4.5	10,000				10,000	
	SUB-TOTAL CONTRACTS COMPONENT		3,347,770	91,918	575,789	1,570,883	654,806	454,374
	TRAINING/MEETINGS							
32.01	Training							
32.02	In-country CME Personnel & Training	5.3	180,000		80,000		100,000	
32.03	Course Dev. Workshop – BWM Train-X	4.2	70,000	34,285		35,715		
32.04	Deliver In-country Training - BWM Train-X	4.2	180,000	29,268		75,000	75,000	732
	Meetings							
32.05	CPTF	1.B.3	137,230	1,703	7,860	70,000	50,000	7,667
32.06	GPTF	1.C.1	240,000	3,300	108,324	80,000	40,000	8,376
32.07	Country Communication Workshops	2.4	46,000			46,000		
32.08	Global R&D Symposium	4.4	60,000		28,361	31,639		
32.09	RPTF	6.2	537,000			291,480	101,030	144,490
32.10	Donor Conference (PCU)	7.2	50,000				50,000	
32.10	Donor Conference (Pilot Countries)	7.2	18,000				18,000	
32.11	Int. Port Survey Workshop	3.4	50,000			50,000		
32.12	Int. BW Sampling Workshop	5.5	50,000			50,000		
	SUB-TOTAL TRAINING/MEETINGS		1,618,230	68,556	224,545	679,834	434,030	211,265

Budget Line	Description/Activity	Act. No.	Total	2000	2001	2002	2003	2004
	EQUIPMENT							
41.01	Expendable Equipment (PCU)	1.A.2	50,000	52,664	-2,664			
42.01	BW Sampling Equipment	5.2	60,000	4,935	22,151	32,914		
	SUBTOTAL EQUIPMENT		110,000	57,599	19,487	32,914		
	MISCELLANEOUS							
51.01	Sundries		35,000	229	1,360	10,000	5,000	18,411
52.01	Reporting costs		30,000	322	179	10,000		19,499
53.01	Miscellaneous		30,000		8,377	10,000	10,000	1,623
	SUB-TOTAL MISCELLANEOUS		95,000	551	9,916	30,000	15,000	39,533
	TOTAL:		6,720,000	506,820	1,172,301	2,739,531	1,472,003	829,345
	Executing Agency support 10%		672,000					
	GRAND TOTAL		7,392,000					

REVISED BUDGET NOTES (New Budget Lines on right hand side)

Activity 1.A.1: Human Resources	US\$1,009,000	
Covers salary, benefits, travel for PCU, necessary administrative/secretarial personnel, and international short-term consultancies. The CTA absorbs nearly half the amount in salary and benefits alone.		
a) Salary for CTA	US\$600,000	11.01
b) Salary for Administrative Assistant	US\$214,000	13.01
c) Salary and travel for short-term consultants who will assist the CTA to get the programme off the ground	US\$195,000	11.51
Activity 1.A.2: Hardware	US\$ 50,000	41.01
Cost of IT equipment, office fittings and supplies, telephones etc in PCU and field offices.		
Activity 1.A.3: Info/Comms Network	US\$150,000	11.52
Costs to establish web-site, global information clearing-house and communication system, including hardware and contracting in of consultant(s), plus production of quarterly newsletter and procurement of publications for library collection.		
Activity 1.A.4: PCU Travel	US\$ 200,000	16.01
Airmiles, daily subsistence allowance and other travel costs for PCU travel throughout the programme.		
Activity 1.A.5: Programme Evaluation & Review	US\$80,000	15.01
Travel and other costs for UNDP, IMO etc for tripartite and annual programme evaluations and reviews.		
Activity 1.B1: Establish Lead Agencies and CFP's	In-country cost	
Activity 1.B.2: Support CPTF's and CFP Assistants	US\$794,000	21.03
Salary, benefits, travel and other costs for CFP Assistant in each pilot country at UN local staff level plus general support CPTF activities.		
Activity 1.B.3: CPTF Meetings	US\$137,230	32.05
Funds to support basic meeting costs for CPTFs in each country, based on US\$3,000 per meeting, 10 meetings over 4 years for 6 pilot countries.		

Activity 1.B4: Develop & Implement National Workplans	US\$688,370	21.02
<p>US\$125,000 per country to assist each CPTF in developing and implementing its National Workplan for the programme. It should be noted that the National Workplans will be implementing many of the activities under programme components 2 to 7, which have separate budgets, so total resources available for National Workplan implementation are significantly greater than the funds available under Activity 1.B.4 alone.</p>		
Activity 1.C.1: Global Project Task Force	US\$240,000	32.06
<p>Travel, DSA and other costs for holding GPTF meetings, based on \$40,000 per meeting and 1 meeting per year for three years, plus an additional \$120,000 to cover the costs of Advisory Group or Sub-Committee meetings that may be required.</p>		
Activity 2.1: Programme Identity	US\$3,000	21.04
<p>Costs of engaging external suppliers to develop programme logo, stationary and standards for application.</p>		
Activity 2.2: Comm, Education and Awareness Raising Materials	US\$113,335	21.04
<p>Costs of producing a range of communication, education and awareness raising materials for use by PCU, IMO and pilot countries in suitable formats and languages, including standard slide presentations, brochures, educational posters, pamphlets and other products. To be developed and produced professionally using external suppliers but utilising existing materials from countries that are advanced in this area.</p>		
Activity 2.3: Case Studies	US\$102,000	21.01
<p>Contract fees for consultant to research and compile case studies demonstrating the economic, ecological and human health impacts of ballast water introductions plus costs of publishing and communicating the case studies to all stakeholders in the pilot countries.</p>		
Activity 2.4: Country Communication Workshops	US\$46,000	32.07
<p>\$20,000 per country to hold national workshops to develop National Communication Workplans, including in-country strategies and activities for education and awareness raising and public participation.</p>		
Activity 2.5: Implement National Communication Workplans	US\$517,665	21.05
<p>Approximately \$86,000 per country to assist with implementing the workplans developed from activity 2.4.</p>		

Activity 3.1: Ballast Water Risk Assessment **US\$281,000** **21.06**

Consultancy fees and costs to undertake a ballast water risk assessment for each demonstration site (\$50,000 per port). Each CPTF to support this task through provision of data and information.

Activity 3.2: Port Baseline Surveys **US\$491,400** **21.07**

\$100,000 consultancy fees and costs to design and coordinate the surveys and provide in-country training. \$391,400 to support in-country marine science community to undertake biota surveys at each demonstration site.

Activity 3.3: International Port Survey Workshop. **US\$50,000** **32.11**

Workshop costs.

Activity 3.3. Information Gap Filling **No explicit cost.**

Most activities under the programme will identify information gaps as a matter of course and the PCU with support from the CPTFs will undertake ongoing review of all activities to ascertain these and define activities needed to fill these gaps.

Activity 4.1: Translate/Disseminate IMO Guidelines **US\$22,000** **21.09**

The major focus of the programme is on assisting the pilot countries to implement the IMO ballast water management guidelines. In order to do this, the guidelines must be made widely available. Costs of translating the guidelines and distributing them.

Activity 4.2: BWM Education and Training Packages **US\$300,000**

It is necessary to train Lead Agency, port and shipping personnel in each pilot country in ballast water management, consistent with the IMO guidelines. This training has three components:

Consultant to develop generic package, using TRAIN-X methodology:	\$50,000	11.53
Hold workshop to finalise course package:	\$70,000	32.03
Deliver initial training course in each country and validate:	\$180,000	32.04
Ongoing training to be in-country responsibility.		

Activity 4.3: Legislation and Regulations **US\$185,000** **21.08**

\$25,000 per country for in-country consultants/institutions to review all existing national and local legislation and regulations relating to ballast water and recommend any changes required to mandate national ballast water management arrangements developed under the programme. \$30,000 for expert advice and coordination on contract to PCU.

Activity 4.4: Global R&D Symposium	US\$60,000	32.08
Costs of holding the symposium, inc. travel and DSA.		
Activity 5.1: Develop CME Systems	US\$20,000	21.10
Consultant fees and costs to adapt relevant components of IMO guidelines and other standard protocols to develop compliance monitoring and enforcement (CME) generic system.		
Activity 5.2: Ballast Water Sampling Equipment	US\$60,000	42.01
\$10,000 per country to purchase standard ballast water sampling equipment for use in CME activities.		
Activity 5.3: In-Country CME Personnel and Training	US\$180,000	32.02
To train CME personnel designated by Lead Agency/port authorities in CME procedures and use of BW sampling equipment.		
Activity 5.4: Implement CME Systems	US\$120,000	21.11
\$20,000 per country to assist with implementing CME systems.		
Activity 5.5: International Ballast Water Sampling Workshop	US\$50,000	32.12
Workshop costs to review and establish standards fro BW sampling equipment and methods and train GloBallast Pilot Countries.		
Activity 6.1: Form Regional Project Task Forces	US\$60,000	16.02
Travel to establish RPTFs.		
Activity 6.2: RPTF Meetings and Study Tours	US\$537,000	32.09
Travel and other costs to hold RPTF meetings and for study tours by personnel from neighbouring countries to the initial demonstration sites.		
Activity 7.2: Donor Conference	US\$68,000	32.10
Travel and other costs to hold conference.		

**Appendix 4:
Introductory Presentation –
Agenda Item 4**

GloBallast Programme

Activity 3.1

BALLAST WATER RISK ASSESSMENT

Six Demonstration Sites

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Ballast Water Risk Assessment

Risk = Type of Hazard x Chance (probability) of Occurrence

- To Define the Hazard --> Define the "End Point"...
 - Discharge of BW containing viable (undamaged) organisms of any Non-Indigenous Species (NIS)...?
 - Discharge of BW containing viable (undamaged) NIS recognised as a potential pest ('Risk Species') or already known/declared a pest ('Target Species')...?
 - Establishment of a local population of any NIS...?
 - Establishment of a local population of any unwanted Risk or Targeted Species...?
 - A new NIS population actually causes an unacceptable ecological, fishery or health impact and economic loss...?

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Risk = Defined Hazard x Chance (probability) of it Occurring

- For the GloBallast 'First Pass' Risk Assessment, the defined Hazard (= 'End Point') is the:

"Discharge of BW likely to contain viable (undamaged) life stages of at least one NIS that is considered a **High Risk* Species**"

* = a species considered capable of establishing a new population at the port, with suspected or known 'pest' and 'nuisance' credentials.

[for some demonstration sites, the list of 'High Risk' species will include taxa already being specifically 'targeted' by some nations - e.g. Zebra mussel; *Memniopsis* comb jelly, some toxic dinoflagellates, etc]

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Ballast Water Risk Assessment

Risk = Type of Hazard x Chance (probability) of it Occurring

- Determining the Chance of the defined Hazard occurring...
 - For transfer of a High Risk species into a port, the chance of establishment increases with:
 - frequency of BW discharges sourced from ports in regions containing High Risk species;
 - number of organisms per discharge, i.e. those surviving BW uptake and tank confinement (depends on voyage length, tank size/locations, BW exchange effectiveness, etc)

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- the Chance for these organisms to subsequently establish a population and cause an impact, also requires:
 - similar environmental conditions permitting survival, growth, reproduction and successful recruitments.
 - an ability to increase in numbers, occupy habitats and overcome / displace the native biota and communities;
 - an ability to cause unacceptable changes and losses.

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Types of BW Risk Assessment

- Qualitative Risk Identification ('low', 'medium', 'high'). Based on subjective parameters drawn from previous experience, scientific opinion, 'expert' inputs, etc.
- Semi-Quantitative Ranking of Risk (to minimise subjectivity wherever possible; such as including a multivariate Environmental Similarity Analysis).
- Quantitative Risk Assessment (QRA). For BWRA this requires emerging procedures requiring 'Target' species, large amounts of data collation, and evaluation and input of all uncertainties.

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Four Objectives of the GloBallast 'First Pass' Risk Assessment

- 1) Identify the trading routes and vessel types that represent the Highest Risk of Introducing a Pest;
- 2) Training and familiarisation In Risk Assessment terminology, approach and methods;
- 3) Providing a 'Demonstration Tool' that allows each Pilot Country to undertake further risk assessments in future, including for other ports in their country and region;

and...

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- 4) Providing information allowing the Pilot Country to decide on the need and value of adopting either:
 - a 'blanket' approach to BW management; or
 - a vessel/voyage specific and 'target species' approach.

NB. The 2nd approach is expensive to set up and operate. Its effectiveness also needs to be proven (e.g. how to deal with a non-targeted, 'surprise' pest?). However the targeted approach does offer potential long term cost savings in BW monitoring and management.

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Three Components Required for the GloBallast First-Pass Risk Assessment

- 1) Determine the 'Inoculation' Potential;
 - Sources, frequencies and quantities of BW discharges;
 - **Optional:** Evaluate conditions affecting survival of organisms during voyage:
 - voyage duration and route,
 - tank size and location,
 - was BW exchanged?
 - was BW treated?

- 2) Determine the presence of High Risk species at the source ports (or in the bioregion of the port if there is inadequate port information).
- 3) Determine the Environmental Similarity of the receival and donor ports (by multivariate analysis).

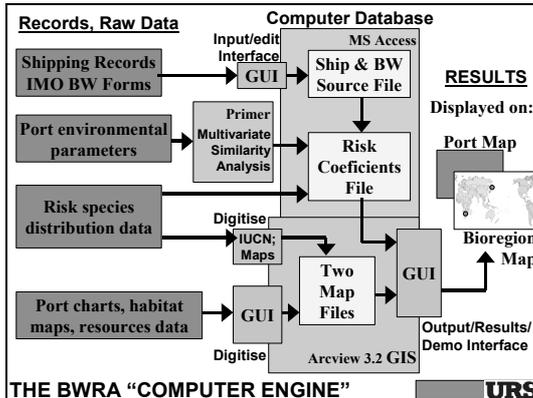
Use the above information to identify the relative risks for each port (with respect to each of its main BW donor and destination ports)

Six Main Activities for achieving the First-Pass Risk Assessment:

- 1) Establish GIS system and map the port's facilities, local marine habitats and resources, to show the port's deballasting/ballasting patterns. [use ESRI Arcview 3.2] = PCU ToR Tasks 1,2
- 2) Establish a computer database that contains the port's shipping and BW data (from the IMO BW Reporting Form plus port records), to use for identifying the port's main BW Source Ports and the BW Destination Ports. [use MS Access 2000] = PCU ToR Tasks 2,3,4,5

- 3) Collate the environmental data (10-15 parameters) for the port and each of its main source and destination ports, for input to PRIMER database; [use MS Excel] = PCU ToR Task 6
- 4) Undertake the Environmental Similarity Analysis (by multivariate technique); then: [use Primer 5.2.8] = PCU ToR Task 7

- 5) Collate risk species distribution data and add to a world IUCN bioregion map on the GIS [with CSIRO input] = PCU ToR Task 8
then:
- 6) Use the GIS to undertake and display the Risk Assessment, using the results from Activities 1-5. = PCU ToR Task 9



1st Visit (5 work days at each port):

Install & check computer software; digitise port map (as much as possible); review all relevant data and databases; set up BWRP database; identify information gaps and work required.

2nd Visit: (10 work days per port):

Complete digitising of port map; install bioregional map on GIS; add risk species to GIS database; perform Environmental Similarity Analysis; undertake Risk Assessment; Evaluate Results; Reporting.

'Hands-on' use and training for the country's BWRA team will be undertaken for all activities during both visits.

It is hoped that a Reporting Workshop can be held in Fremantle [Australia] for 3 reps from each Demo Site to share, compare & debrief results and recommendations...



More Information?

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