BUILDING PARTNERSHIPS TO ASSIST DEVELOPING COUNTRIES TO REDUCE THE TRANSFER OF HARMFUL AQUATIC ORGANISMS IN SHIPS' BALLAST WATER (GLOBALLAST PARTNERSHIPS)

An Independent Terminal Evaluation

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Project Outline

Project Title: Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)			
Countries	Global	GEF Project ID	2261
GEF Implementing Agency	UNDP	Agency Project ID	00058008
Executing Partner	International Maritime Organization		
GEF Focal Area	International Waters		
Original Project Document Figures (i.e. Prior to agreed extensions)			
ProDoc Signature Date	Sept 2007	GEF Budget	USD 6.387 Million
		IA/EA Own	USD 4.318 Million
Operational Closure (Proposed)	Sept 2012	Government	USD 9.849 Million
		Other	USD 3.533 Million
Operational Closure Actual)	June 2017	Total Co-financing	USD 17.701 Million
		Total Budget	USD 25.410 Million

N.B. Actual Co-financing figures realised by the end of the 'extended' project are discussed in the relevant section(s) below

Acknowledgments

The Evaluator would like first to acknowledge the overall highly professional level of preparation by the Project Coordination Unit, Implementing Agency, Executing Agency and all of the stakeholders that has gone into the planning and implementation of this Evaluation. All of the documentation required to undertake a comprehensive evaluation process was provided in a most timely manner and all queries and requests answered efficiently and quickly. It was a pleasure to meet with all of the various national focal points and other project stakeholders in Panama and on skype calls, all of whom spoke highly of the project and its management and administration. It is quite obvious that both IMO (as the Executing Agency) and UNDP (as the Implementation Agency) have given significant attention and support to this complex and demanding global project. In particular though, I would wish to acknowledge the tremendous efforts of the PCU staff, Antoine Blonce and John Alonso, and their friendliness and willingness to assist and support the evaluation process. Thank you and good luck to all!!

David Vousden, Grahamstown, June 2017

Acronyms and Abbreviations

APR/PIR	Annual Progress Report (also sometimes referred to as a PIR (Project Implementation Report)
AWP	Annual Work-Plan
BW	Ballast Water
BWM	Ballast Water Management
BWMS	Ballast Water Management Systems
BWWG	Ballast Water Working Group
CaspEco	The Caspian Sea Project for Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework
CME	Compliance, Monitoring & Enforcement
CPPS	Permanent Commission for the South Pacific
DSS	Decision Support System
EA	Executing Agency
EBRD	European Bank for Reconstruction and Development
EMSA	European Maritime Safety Agency
ExCom	Executive Committee
FAO	United Nations Food and Agricultural Organisation
GBP	GloBallast Partnerships
GEF	Global Environment Facility
GIA	Global Industrial Alliance
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GloFouling	Global Fouling Project (UNDP-IMO-GEF)
GloMEEP	Global Maritime Energy Efficiency Partnerships Project
Glo-X	Three-tier management system adopted for GloBallast Projects
GMEIS	Globallast Marine Electronic Information System
GPTF	Global Project Task Force
IA	Implementing Agency
IAEA	International Atomic Energy Association
IAS	Invasive Alien Species
ICES	The International Council for the Exploration of the Sea
ICZM	Integrated Coastal Zone Management
IMAREST	Institute of Marine Engineering, Science & Technology
IMO	International Maritime Organization
IMS	Information Management System
IOC	International Oceanographic Commission
IOI	International Ocean Institute
ITCP	Integrated Technical Cooperation Programme
ITF	International Task Force
IW:LEARN	International Waters: Learning Exchange and Resources Network
KIOST	Korea Institute of Ocean Science & Technology
LME	Large Marine Ecosystem
LPC	Lead Partnering Country
LPIR	Legal, Policy and Institutional Reforms
MARPOL	International Convention for the Prevention of Pollution by Ships
M&E	Monitoring and Evaluation
MEPC	Marine Environment Protection Committee

MTR	Mid Term Review
NBWMS	National Ballast Water Management Strategy
NFP	National Focal Point
NSBWO	North Sea Ballast Water Opportunity
NTF	National Task Force
PC	Partner Country
PCU	Project Coordination Unit
PTA	Project Technical Advisor
QPR	Quarterly Progress Report
RCO	Regional Coordinating Organization
R&D	Research and Development
REMPEC	Regional Marine Pollution Emergency Centre for the Mediterranean Sea
ROPME	Regional Organization for Protection of the Marine Environment - Kuwait
RSP	Regional Seas Programme
RTF	Regional Task Force
SAP	Strategic Action Programme
SafeMed	Euromed Cooperation on Maritime Safety and Prevention of Pollution from Ships
SMART	Specific, Measurable, Achievable, Relevant, Time-bound
SPREP	Secretariat of the Pacific Regional Environment Programme
TCD	Technical Cooperation Division
TDA	Transboundary Diagnostic Analysis
TE	Terminal Evaluation
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme (now called UN Environment)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
TT	Tracking Tool
WCAR	West and Central Africa Region
WGBOSV	Working Group on Ballast and Other Ship Vectors
WMO	World Meteorological Organisation
WMU	World Maritime University

Executive Summary

This Project was formally launched in October 2007 with the Project Document Signature. It was initially planned as a five-year project and was therefore scheduled to close in October 2012. However, the Project Executive Committee agreed to extend the Project until June 2017. This lengthy extension of the Project was deemed necessary in order to continue to provide support to countries in achieving ratification of the Ballast Water Convention including the development and adoption of national Ballast Water Management Strategies. A 'no-cost' extension was agreed by UNDP and GEF in 2012. This was made possible through the IMO Technical Cooperation Fund and a number of other co-financing partners agreeing to support significant number of the activities which allowed the Project to stretch out the use of the GEF funds over a much longer period.

The overall objective of the GloBallast Partnerships Project has been to assist developing countries to reduce the risk of ballast water mediated bio-invasions and to prepare the countries for implementation of the IMO Ballast Water Management Convention and compliance with its requirements at all levels. In order to achieve this, the GBP has supported and promoted the development of uniform legal, policy and institutional frameworks in several developing countries, and has undertaken a major capacity-building programme in over 70 countries.

In the achievement of this Objective, four Outcomes have been included in the Project as follows:

1. Learning, evaluation and adaptive management increased
2. BWM strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level.
3. Knowledge management tools and marine monitoring systems are effectively utilised to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, end enhance maritime sector communications
4. Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions.

Each of these Outcomes has a corresponding set of outputs and activities which are captured in detail in the Project Logical Results Framework (See Annex 1).

CONCLUSIONS OF THE EVALUATION PROCESS

The overall Conclusions of this Evaluation, based on the findings discussed in this Report are very simple and do not need to be unnecessarily protracted and sustained in their presentation. This Project has been frequently described within the international oceans management and governance community as a 'Game-Changer' for the shipping industry and for the maritime community as a whole. The GBP project was given an enormous task to do with very little time originally and very limited resources. The GloBallast family and their various institutional representation at the global, regional and national level have done an outstanding and exemplary job in delivering on this almost-impossible original expectation. Much of this success story revolves around the 'ownership' and family nature of this project and the skills and professionalism of those who have managed it. In realising the inappropriate nature of one or two of the original activities and targets, as well as the need for significant extension(s) to the project, definitive decisions were made based on an adaptive management approach and the endorsement of the appropriate administrative authorities were sought and granted. The Project then went to lengths to negotiate and successfully

secure the necessary co-financing to support those decisions as required. The Implementation/Execution team of UNDP and IMO are to be congratulated on supporting this approach within what can all-too-frequently be a somewhat restrictive environment of the United Nations under their strict administrative rules and regulations and auditing processes, and without contravening any of those rules and regulations. The individuals staffing the PCU (both current and past serving members) also deserve enormous praise for their abilities to match professionalism and expertise with diplomacy and understanding in order to meet the needs and demands of the various stakeholders and consistently deliver on the targets and indicators as defined in the Results Framework.

LESSONS LEARNED AND BEST PRACTICES

- As with so many projects of this nature, there is a need to develop buy-in at the higher, Ministerial and decision-making/policy-making level from the very beginning. It is hard to 'sell' a project of this nature and its activities when 'pushing up' from the technical or management level. The use of Policy Briefing documents is one tool that can assist with this and this can be a valuable lesson for both GloMEEP and GloFouling.

- The Three-Tier Management Partnership developed though the Project (PCU to RCO to LPC and National Task Forces) has been an excellent model that has been praised by all stakeholders. This is now being used for GloMEEP and doubtless will be (should be) modified as necessary to fit GloFouling.

- There is always a 'political' risk for any project of this nature that is addressing long-term issues. Awareness raising can be very effective and successful but it is an on-going 'no exit' activity in light of political cycles in countries. One tool that GloBallast develop (somewhat incidentally in the context of addressing political sustainability but nonetheless valuable) was involving financial institutions such as EBRD. These financial institutions can provide significant leverage at the financial and thus political level when it comes to compliance and to requiring the embedment of global agreements into national policy and legislation. As with EBRD, most banks and financial institutions jealously guard and protect their reputations and the conditions placed on loans and other financial instruments can reflect this through the requirement to comply with such international treaties.

- As with many IW projects, the twinning Component has been seen to be very valuable. It is really useful and important to transfer knowledge and share lessons and experiences across projects and regions. The 'Twinning' Concept should be captured in a Project Document of this nature from the beginning.

- The Train-the-Trainers programme has also been very successful and many of the countries now appreciate the fact that they have skills and experience resident within their regions that they can use and which understand the specific issues of their countries. The Trainers should go to the trainees in regions and/or countries rather than the other way around as this is more cost-effective and can deal in-country or in-region with more relevant sectors. Furthermore, over 2,000 people have now been through the GloBallast E-learning process. This really needs an IW:LEARN Experience Note. Also, as much as would be feasible, more mentoring of trainees would have been useful in a Project for this nature and should be considered for future similar approaches.

- Continuity of involvement can pose a problem. There needs to be a clearly designated NFP as a person (and not just as an Institute) with a nominated alternative. Communications and

invitations should be directed to that person. One of the problems experienced during the project by some countries/NFPs was that an invitation would go to the Ministry that was the National Focal Institution and then the senior person would select who should attend a course and it might often not be the correct person or the NFP. This is also not good for developing or maintaining networking within the regional stakeholders. In future, a project should specify the attendance of the NFP (where appropriate) and, if the country wants to send someone else then it must pay for that person.

- Some stakeholders noted that one valuable lesson learned in setting up the National Task Forces was to do this through a senior Ministry such as Foreign Affairs as this gave the task force more credibility and was more likely to encourage membership at the right level of seniority rather than junior staff being allocated. This approach has been noted as a valuable lesson in many IW Project now. Generally, it is important to have support and understanding at the high-level right from the beginning of such a project.

- Some countries were in favour of using more video conferencing in future, in view of the global and regional nature of the GloBallast family. This would be a valuable consideration for the GloFouling Project as and when it is launched.

- Some countries also felt that a great deal can be achieved even without the national legislation being in place (through a precautionary approach). Port States can adopt and use Guidelines as the Flag States are required to comply with the Convention in any case if they have agreed to accession. However, others felt that compliance (and its associated legislative foundation) is at the core of the Convention to ensure industry engagement in the GloBallast approach.

- The tendency for GEF to only support 5-year project cycles or less can be a major constraint to projects like this dealing with international conventions and associated legislation and institutional reforms. Such projects require more than 5 years to address these reforms and realignments at the national and regional levels in order to reflect global criteria and needs. In the case of the GloBallast programme (i.e. both projects) it was fortunate that the process from recognising the need for a Convention to the Convention coming into force (17 years) was not dependent on GEF funding alone but was able to leverage its own support from various sources or this could have created a serious situation whereby the Project(s) were operationally closed before the countries had significantly ratified let along the Convention being in force, which could have then been deemed a failure on the part of the GEF and its partners. Without this independent co-funding source(s) this Project would have certainly failed.

- Adoption and implementation of a regulation or treaty that relies on 'aspirational' technology is short-sighted and inappropriate if all stakeholders are to give support and if the said treaty or convention is to be 'reasonably' compliable and thus enforceable. If necessary, the treaty should not be able to come into force without agreement on the ability for compliance and enforcement including appropriate technology and training. This is a serious lesson that needs to be captured somehow within the GloFouling Project design.

- Awareness raising within the shipping industry could have been stronger and more effective and this was also noted in the context of IMO's own divisions where some stakeholders felt that improved awareness on GloBallast and, in future, GloFouling, would be beneficial and should be targeted.

- Having the PCU based in IMO HQ: PCU benefitted from the technical knowledge of MEPC and IMO Secretariat while IMO benefitted from the implementation support of the PCU for ITCP activities. Doubtless this lesson is not lost on IMO and UNDP and will be repeated as appropriate in future.

- It is regrettable after nearly two decades of evaluating GEF projects to note that transition time between the GEF projects/phases is still frequently unacceptably long. This concern has been raised time and time again in evaluations of GEF Project. The risks to ownership, awareness, continuity, lost capacity and to the overall investment seem obvious and significant, at least to all other partners and stakeholders. Despite these major risks there seems to be little appetite to address this concern. Although this is therefore a Lesson Learned from many GEF Projects and is frequently the subject of concern in Terminal Evaluations, is does not seem to be the focus of any attempts to resolve, or even for the Implementing Agencies to open a dialogue with the GEF on what is frequently and strongly an issue raised by the countries themselves.

OVERALL RECOMMENDATIONS ARISING FROM THE EVALUATION

The following Recommendations are targeted at either the Executing Agency, the Implementing Agency, the countries or a combination of these entities

No.	1. RECOMMENDATION	TARGET GROUP
	2.	
1	The ITCP and the Technical Cooperation Division of IMO now represents the primary vehicle for continued technical assistance in relation to ballast water issues. What is now needed is a more modular and sequential plan and road-map for this support process and less 'one-off' *ad hoc* activities. To achieve this, the Marine Environment Division and the Technical Cooperation Division (TCD) need to collaborate closely so that when a country that has no experience or expertise in developing a BWM strategy seeks help, they can react jointly with a standard work-plan. The RCOs can also be very instrumental in this process by alerting IMO to the regional needs rather than just focusing on national requirements.	IMO
2	IMO needs to adopt a work-plan to transfer the lessons learned through the LPCs and PCs to other countries and thereby generally keep the momentum going for ratification of the Convention, or accession once the Convention has come into force. Then there needs to be a monitoring plan to ensure that this workplan is delivered	IMO
3	Stakeholders felt strongly that an interim moratorium period should be established (once the Convention is in force) whereby the shipping industry is not financially or legally penalised if the Convention requirements are not precisely met (or are 'construed' to be not precisely met) and sampling results are not used to support criminal actions for a period (e.g. 18-24 months). This could be seen as a 'shake-down' period to iron out any glitches in sampling and treatment processes. This would also serve to boost industry confidence and trust in this Convention which would help to strengthen support and buy-in for GloFouling (and probably GloMEEP also). Presumably this would need to go through the MEPC	IMO

4	It was proposed by some stakeholders that the World Health Organisation needs to be more of a partner in Ballast Water Management as a number of pathogens are already being identified in ballast water.	IMO
5	The BBC video production of 'Invaders from the Sea' was praised by all parties and is, indeed, an excellent awareness tool. Consideration should be given now to updating this with the progress of events and with the Convention about to come into force. Careful consideration should be given both to the 'branding' and to the potential audience. It may be worth considering a short 5-minute version for policy-makers?	IMO
6	The Risk Assessments and Economic Assessments were geared toward providing a 'counter' defence to the cost of ballast water management implementation in the context of the value of renewable living marine resources that may be lost as well as the threats to industry. However, the PCU and IMO noted that the results of these assessments should ideally have been refined into short but concise Briefing documents targeted at policy-level decision-makers (e.g. Ministers or Directors-General). This can and should still be done through the creation of short, concise Briefing Documents aimed at policy-makers (both for GloBallast and GloFouling as well as GloMEEP if this is not already being done).	IMO
7	In a similar context, all national studies highlighted the significant risks to the economies and environment of the countries. However, stakeholders felt that, although it was an excellent start, they need A. further research on this and in more detail, in order to drive home the importance of the Ballast Water Management and B. to get this information to where it is most needed at the national policy and decision-making level through short, sharp, concise Briefing documents of a 'brochure' nature for senior management and decision-makers both within and outside of Governments.	IMO + COUNTRIES
8	There is also a need to review and update some of the strategies as some were written long enough ago that they are no longer valid to the current Convention. With the Convention now coming into force, it would make sense for the countries to review them again to see if they are still 'fit-for-purpose'. This would benefit from an independent peer-review process to ensure compatibility and quality, and to ensure that they are in line with any more recent developments in Research and Development. This is important if the implementation of the Convention is to be considered as credible by the shipping industry. As noted above under the review of Outcome 2, It would be a valuable exercise now if a Panel of Experts were to review the various BWM Strategies that were originally created by the countries to see if A. they are still 'fit-for-purpose' as the Convention comes into force and B. How much the Strategies have been adopted/implemented by the countries, and to make recommendations on improvements where necessary.	IMO + COUNTRIES
9	It may be worth considering using the existing RCOs and Task Forces from GloBallast for GloFouling so as to take advantage of these ready-made bodies as well as to ensure their sustainability. IMO is already planning to replicate the Glo-X structure from Global to Regional to National levels. A strong focus should go on ensuring good multi-	IMO + COUNTRIES

	sectoral and inter-ministerial representation on the national task forces. Also, the Regional Seas Programmes need to be more closely involved with and through the RCOs which has not happened during GloBallast Partnerships Project despite attempts by the PCU and IMO to organise closer involvement of UNEP and the RSPs. It was noted, however, that the Project Design could have been improved through the inclusion of pre-negotiated and more formal and detailed Terms of Reference for the RCOs at the time of submission/endorsement.	
10	There is an apparent need to ensure better standardisation of monitoring (at port level as a baseline and at ship level as ballast water monitoring itself) as well as a better understanding of the application of the standards for compliance at the port level. The industry needs to have more confidence in the ship monitoring process and that it is both reliable and comparable across all ports and vessels. In this context also, the inspectors and the countries do require more technical training related to compliance, monitoring and enforcement as the ballast water management process evolves alongside the Convention itself. The Port Baseline work still falls short of what is needed as has been noted by the stakeholders. Further training and further funding support for in-field work and analysis is an important requirement. Each country was required to complete a Maritime Profile which highlighted what the national requirements were in terms of training and other assistance and this should be updated.	IMO + COUNTRIES
11	The shipping industry deserves some recognition publicly for the important steps it has taken with IMO to bring this Convention into force. Some means of highlighting those ships or companies that are making extra efforts to comply would be a valuable public relations tool and further build confidence and buy-in.	IMO AND SHIPPING INDUSTRY
12	This has been a 'model project for demonstrating successful interaction and partnering with industry. UNDP should consider opening a dialogue with industry and GEF over the potential for a broader scale and more comprehensive industry interaction project at the level of International Waters. This would inevitably include such partners as IMO and other GloBallast 'family' members but would extend beyond just the shipping industry and reach out to the energy and mining industry as well as fishing and tourism within the umbrella concept of interactive and collaborative ocean governance. The objective of such a project could be to demonstrate effective engagement of industry sectors into the overall aims and targets of the International Waters portfolio, possibly focused initially on LME and ecosystem-based collaborative management and governance.	UNDP
13	The Ballast Water Management Infrastructure Investment Guidance prepared on behalf of EBRD should be circulated to all LME projects for their consideration and appropriate action within their regions. This is a valuable set of guidelines that can provide strong support within the Blue Economy arena which is growing fast and which recognises the need for private sector investment in marine ecosystem and marine living resources sustainability.	UNDP
14	UNDP should include a standard format for Quarterly Progress Reports as part of the Project Document Annexes to ensure that format and quality is consistent and to reduce the work-load for Project Managers	UNDP

15	IMO and UNDP need to talk with IW:LEARN about creating appropriate Experience Notes from this very successful Project. There are many lessons that can be captured and only some of this have really surfaced during this evaluation.	UNDP + IMO
16	There may now be a case for seeking funding from GEF and/or other potential donors to support elements of GloBallast and future Convention implementation. There are still a number of outstanding issues identified within this evaluation that donors may wish to consider supporting in order to build on and consolidate this impressive investment project. For example, there is now a wealth of scientific literature and discussion regarding the growing concerns about the impacts of climate change on the potential for invasive species migration and successful colonisation[1] and a number of potential donors might be interested in supporting further work in this area which will undoubtedly impact on the ability of invasive species to colonise from ballast water (and hull-fouling).	UNDP + IMO

PROJECT RATINGS:

Rating Project Performance	
Criteria	**Rating Type**
Monitoring and Evaluation	
Overall quality of M&E	Highly Satisfactory
M&E design at project start up	Satisfactory
M&E Plan Implementation	Highly Satisfactory
Implementing Agency/Executing Agency Project Execution	
Overall Quality of Project Implementation/Execution	Highly Satisfactory
Implementing Agency Execution	Highly Satisfactory
Executing Agency Execution	Highly Satisfactory
Quality of Project Outcome	
Overall Quality of Project Outcomes	Highly Satisfactory
Effectiveness	Highly Satisfactory
Efficiency	Highly Satisfactory
Relevance	Relevant
Likelihood of Sustainability	
Overall Likelihood of a Sustainable Future	Likely
Financial resources	Likely
Socio-economic	Likely
Institutional framework and governance	Likely
Environmental	Likely

[1] For an introduction see http://www.mccip.org.uk/media/1391/non-natives-report-from-cambridge-university.pdf

Overall Impact of Project	
Overall Impact on and through Process	Significant
Overall Project Results	**6 – HIGHLY SATISFACTORY**

It is rare indeed to give a Project a **Highly Satisfactory** rating and probably even rarer to have such an 'across-the-board' and conclusive set of ratings for each Performance Indicator. Such 'scores' are not given lightly but, in this case, most deservedly as is clear from the discussions, findings and conclusions of this Evaluation.

INTRODUCTION

1.1 Purpose and Objective of the evaluation

UNDP Project evaluations aim to assess the efficiency and effectiveness of a project in achieving its intended results. They also assess the relevance and sustainability of outputs as contributions to medium-term and longer-term outcomes, and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. GEF requires that its projects should be monitored and evaluated for their contribution to global environmental benefits

The Terminal Evaluation (TE) of a project must be carried out during the period 6 months before and 6 months after project operational closure and is to be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the **UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects[2].**

The Terms of Reference for the GEF-UNDP-IMO Project on ‘Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships’ Ballast Water (GloBallast Partnerships) set out the expectations for this Terminal Evaluation and are provided as Annex 3.

1.2 Scope & Methodology

This Terminal Evaluation (TE) compared planned outputs of the project to actual outputs and assessed the actual results to determine their contribution to the attainment of the project objectives. The Evaluation also reviewed and assessed the efficiency of project management, including the delivery of outputs and activities in terms of quality, quantity, timeliness and cost efficiency as well as features related to the process involved in achieving those outputs and the impacts of the project. The Evaluation further addressed the underlying causes and issues contributing to targets not adequately achieved. The Evaluator has strived to follow a participatory and consultative approach ensuring engagement with the project team, project partners and key stakeholders in the region covered by the project.

This Terminal Evaluation is an evidence-based assessment which relies heavily on feedback from persons who have been involved in the design, implementation, and supervision of the project, either directly in a management /coordination role, or more indirectly as stakeholders (i.e. government, private sector, academic and scientific institutions, etc.). It is also based on a review of documentary evidence as well as personal observations and investigative interviews and questionnaires.

An Evaluation Matrix template was provided to the Evaluator as part of the ToR and this was adapted and completed by the Evaluator to suit the requirements of this evaluation process (see Annex 8).

All evidence used in the findings and conclusions of the evaluation was cross-checked and validated across as many sources as was practicable using the following methodologies:

[2] (http://web.undp.org/evaluation/documents/guidance/gef/undp-gef-te-guide.pdf)

1. A General Questionnaire for all stakeholders
2. A more detailed questionnaire for the Implementing Agency, Executing Agency and Funding Agency representatives
3. Confidential interviews with selected stakeholders (country focal points, RCO representatives, GPTF members, Industry representatives, co-founders, etc. Approx. 55 in total - see Annex 6)
4. Attendance at the 5th GloBallast Partnership Task Force meeting and Panama Maritime Conference XIII in Panama City between 11th – 21st March, 2017 for confidential interviews with project stakeholders
5. Mission to IMO Headquarter London between 2nd and 7th April 2017 for consultations and interviews with IMO and PCU staff
6. A detailed review of documentation relating to monitoring and evaluation (e.g PIRs, Quarterly Reports, Mid-Term Reviews for both project phases and the Terminal Evaluation from phase one, GPTF minutes, GEF Tracking Tool, etc. – see full list under Annex 7)
7. A detailed review of 'information and guideline' documents, media and internet sites (e.g. IMO and national websites, various monographs and publications, visual media, etc. – see also Annex 7)

Triangulation of findings for validation purposes was therefore provided through verbal consultations. written questionnaires and investigative reviews of documentation. Furthermore, the project Logical Results Framework was used to support this process and to assess achievement of project objectives and targets through approved indicators. The Evaluator has maintained a detailed and accessible auditing trail of documentation and evidence to support all of the evaluation's findings.

1.3 Structure of the evaluation report

The Evaluation Report is structured so as to cover the project description and its aims and objectives first, then to review the original Project Document and its relevance, the problems it is addressing, the stakeholders that will be involved and the expected results. The MTR Report then considers the design and formulation of the project (the Results Framework, assumptions and risks, etc.) before moving on to a discussion of the actual project Implementation process and then the actual review of the project results and achievements and the ratings and actual assessment. There is a specific section that assesses sustainability of the project and beyond and then the main Report finishes with its Conclusions and Recommendations as well as any Lessons. Appropriate Annexes are attached.

2. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

2.1 Project start and duration

The Project was formally launched in October 2007 with the Project Document Signature. It was initially planned as a five-year project and was therefore scheduled to close in October 2012. However, the Project Executive Committee agreed to extend the Project until June 2017. This lengthy extension of the Project was undertaken in 3 steps (first until October 2014, then October 2016 and finally June 2017) and deemed necessary in order to continue to provide support to countries in achieving

ratification of the Ballast Water Convention including the development and adoption of national Ballast Water Management Strategies. A 'no-cost' extension was agreed by UNDP in 2012, 2014 and 2016 respectively. This was made possible through the IMO Technical Cooperation Fund and a number of other co-financing partners agreeing to support significant number of the activities which allowed the Project to stretch out the use of the GEF funds over a much longer period.

2.2 Problems that the project sought to address

The history of the GEF-UNDP-IMO Global Ballast Water partnership extends back to the turn of this century and revolves around two major initiatives (projects) that have helped to create a global partnership for addressing the threats from Ballast Water and invasive species. The ultimate aim of these projects and the evolved Partnerships is to protect marine ecosystems, and the sectors and livelihoods that depend upon them, from negative impacts of invasive species, estimated at USD 100 billion per year. Marine bio-invasions are the source of significant environmental and socioeconomic impacts. As well as the reduction in fisheries production due to competition or predation, there have also been recorded impacts on aquaculture and coastal infrastructure.

The year 2000 saw the launch of the first 4-year Global Ballast Water Project – the "Removal of Barriers to the Effective Implementation of Ballast Water Control and Management Measures in Developing Countries". The aim of this project was to assist developing countries to implement effective measures to control the introduction of foreign marine species. Representative demonstration sites were selected in countries chosen from the six main developing regions of the World (China, Iran, India, Ukraine, South Africa and Brazil). To deliver this project, The Global Environment Facility provided funding and support through the International Maritime Organization (IMO) and the United Nations Development Programme (UNDP) working closely with member governments and the shipping industry to demonstrate how to tackle the ballast water problem, particularly in the less-industrialised countries. Importantly, this first 4-year project was instrumental in the development of voluntary guidelines aimed at minimising the risk of introducing harmful marine organisms in ships' ballast water, and aided considerably in the formulation of the IMO International Convention for the Control and Management of Ships Ballast Water & Sediments whereby such voluntary guidelines would evolve into formal legal commitments through such an international treaty. In fact, the development and adoption of this Convention proved far more complex than envisaged by IMO's Marine Environment Protection Committee (MEPC). A major difficulty for MEPC proved to be selecting and agreeing on appropriate standards for ballast water treatment while recognising the safety implications and limitations of ballast water exchange to ships at sea. Nevertheless, the GloBallast Programme clearly acted as a catalyst for accelerating the Convention development process and the Convention was finally agreed and Brazil joined Spain in January 2005 to become the first two States to ratify the BW Convention.

In order to build on the progress made through the first project and to encourage and support national adoption and ratification of the Ballast Water Convention, a new initiative '*Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water*' (now simply referred to as GloBallast Partnerships, or GBP) was agreed with GEF and commenced in late 2007.

2.3 Immediate and development objectives of the project

The overall objective of the GloBallast Partnerships Project has been to assist developing countries to reduce the risk of ballast water mediated bio-invasions and to prepare the countries for implementation of the IMO Ballast Water Management Convention and compliance with its

requirements at all levels. In order to achieve this, The GBP has supported and promoted the development of uniform legal, policy and institutional frameworks in several developing countries, and has undertaken a major capacity-building programme in over 70 countries.

Recent accession by Finland has triggered the entry into force of the Ballast Water Management (BWM) Convention on 8 September 2017. The BWM Convention is a key international measure for environmental protection that aims to stop the spread of potentially invasive aquatic species through ships' ballast water. The BWM Convention was adopted in 2004 by the member states of IMO, the United Nations specialized agency with responsibility for developing global standards for ship safety and security and for the protection of the marine environment and the atmosphere from any harmful impacts of shipping. Under the convention's terms, all ships in international trade will have to manage their ballast water and sediments to certain standards, according to a ship-specific ballast water management plan.

The primary Objective of the Project is to assist vulnerable developing states and regions to implement sustainable, risk-based mechanisms for the management and control of ships' ballast water and sediments, in order to minimize the adverse impacts of aquatic invasive species transferred by ships.

In the achievement of this Objective, four Outcomes have been included as follows:

5. Learning, evaluation and adaptive management increased.
6. BWM strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level.
7. Knowledge management tools and marine monitoring systems are effectively utilised to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, end enhance maritime sector communications.
8. Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions.

Each of these Outcomes has a corresponding set of outputs and activities which are captured in detail in the Project Logical Results Framework (See Annex 1).

2.4 Baseline Indicators established

Primary Objective: By the end of the project, all partnering countries can demonstrate significant improvement in legal, policy and institutional structures, with corresponding reduced risk of ballast water borne marine bio-invasions

Outcome 1: The project team at global, regional and local levels is effectively coordinating the project, with objectives met, and outputs completed in time and within budget.

Outcome 2: At project conclusion, each LPC is implementing an effective program of ballast water management in line with the IMO Convention and any Regional Strategies. During the project, each LPC is sharing the lessons learned with other countries in the region

Outcome 3: Sufficient information is available by the end of the project for LPCs to implement risk-based ballast water management systems. All LMEs and regional Seas programs globally have raised

ballast water management as an important coastal zone concern, with their members taking steps to address the issue. Momentum on GBM is sustained in the GB pilot regions.

Outcome 4: Cost effective technology solutions and testing standards are developed, tested and promoted through a successful partnership with industry

Annex 1 provides a review of all the Indicators established for each Output/Activity under each of the Outcomes.

2.5 Main stakeholders

The Project Document identifies the expected main stakeholders to be:

- Maritime administrations
- Environmental agencies
- Ministries of agriculture (fisheries)
- Ministries of health (quarantine and sanitary services)
- Coast-guard and navy
- Parliamentary committees for environmental protection
- Shipping and port industry
- Oil and gas industry
- Mining industry
- National and regional marine research institutions
- Technology Developers
- Regional and international organizations involved in ballast water management and control
- Relevant NGOs
- Local government agencies
- Donor community and international financial institutions.

The actual Stakeholder Participation Plan is discussed under section 3.6 Stakeholder Participation (below) and the actual stakeholder involvement and interaction during the project is reviewed under section 4.2 Stakeholder Engagement (below)

2.6 Expected Results

The GloBallast Partnerships project represents a unique example and a model of GEF assistance being used during the early stages of implementation of an international treaty related to GEF aims and objectives, with most of the burden associated with Convention Implementation activities shared by the responsible UN Agency (IMO) together with the respective developing countries. The project was planned to provide an opportunity for GEF to continue to catalytically pursue its priorities related to Invasive Aquatic Species (IAS) and to follow up on its own strategic priorities related to enabling long term policy reforms “on the ground” at country level contributing to significant global environmental

benefits due to the very global nature of international shipping. The project aimed to optimize benefits from and continue the momentum generated by the GEF investment in the pilot phase. The GEF intervention was designed to demonstrate how GEF financing of some incremental costs can massively catalyse major achievements at the national level relating to one of GEF's key strategic priorities. Global, regional, national and local benefits would all derive from a successful reduction in the risk of IAS carried by ships' ballast water

GloBallast Partnerships aims to assist developing countries to reduce the risk of aquatic bio-invasions mediated by ships' ballast water and sediments and to expand and build on a successfully completed GEF-UNDP-IMO pilot project (GloBallast Project). With the help of tools developed and lessons learned from the pilot project, the GloBallast Partnerships project sets out to expand government and port management capacities, instigate legal, policy and institutional reforms at the country level, develop mechanisms for sustainability, and drive regional coordination and cooperation. The project is designed to encourage global efforts to design and test technology solutions, and to enhance global knowledge management and marine electronic communications to address the issue. The partnership effort is three-tiered and involved global, regional and country-specific partners, representing government, industry and non-governmental organizations. The project also aims to achieve effective private sector participation through establishing a GloBallast Industry Alliance (GIA) with partners from major maritime companies.

3. PROJECT DESIGN / FORMULATION

3.1 Overall Feedback on Original Project Design

This project built on the results of the Pilot project although there was poor transition between the two timewise due to inefficiencies in the GEF Project Cycle and approval process. Nevertheless, this second phase (GloBallast Partnerships) was specifically designed to support to Convention and its ratification and coming into force. And many of the tools and training activities that were developed in the first (pilot) phase were still relevant and useful for the second phase, so there was good replication and catalytic transfer from the first phase to the second phase. Some countries even managed to leverage their own funding to support ballast water management after the first phase. Mauritius was a good example of this and IOI (International Ocean Institute) which is one of the project partners, has supported training in Mauritius to assist them in training others in the region. This has helped to alleviate the sense that the regions did not really benefit from the pilot phase and that it had just focused on the six pilot countries.

The second phase of the GloBallast intervention (i.e. GloBallast Partnership) was felt by stakeholders to be more mature and now better prepared following on from the first Pilot phase. The materials and guidance were much improved based on the lessons learned from the first phase. However, many stakeholders felt that the original Project Document was far too optimistic in the allocated timescale and the relatively small amount of funding provided by GEF. This may well reflect GEF's policy of 'setting the bar high' in the belief that this will encourage countries and IA/EAs to put more effort into delivery so as to ensure that they meet the targets set in the LogFrame. However, this can also have a negative effect in that it frequently leads to constant revision of LogFrames at Mid Term Review to reduce the `height of the bar' to a more realistic level which, although in itself is 'adaptive' and not unacceptable, does tend then to undermine the initial strict application of GEF policy and criteria (although it does eventually allow the countries and agencies to find their appropriate level of credible delivery). A more 'appropriate' and fairly negotiated agreement on such matters as timing and targets at the Project development and submission stages could reduce the submission time (less review responses) and create better opportunities for projects to deliver realistic targets and on time (as opposed to the constant requirement for extensions and for changes in the LogFrame at MTR).

Generally, stakeholders were of the opinion that they were adequately involved in the design stages as well as in the early 'set-up' of the Project, and that IMO had done a good job of overcoming some of the time constraints encountered in the early implementation days. Both through effective administrative practices and through a flexible 'adaptive management' approach. Stakeholders felt that the Project Document was reasonably user-friendly, although it had very demanding tasks and activities in it for the timeframe, especially in view of the different cultures, legislative and political processes. The consensus has been that this has required a tremendous effort from the countries, but this was well supported and ably assisted by IMO and the PCU. Regional bodies focused hard on delivering what the document required. This was a relatively 'easy sell' for the countries that were high-risk (e.g. Bahamas which has a lot of shipping moving through its waters as well as a flag-ship registry). Most countries and Regional Coordination Organisations (RCOs) had a very clear understanding of what the project was aiming to deliver and what needed to be done and the requirement for a uniform, standard approach to dealing with the GloBallast issues. However, this was not originally so in the context of all the RCOs at Project inception. The Project Document notes that "During the 1st six months of the Inception Phase, formal arrangements, including as necessary the development of Memorandums of Agreement will be established with each Regional Coordinating Organization" and this did, indeed, happen and finally relieved this problem. However, the Project Design could have been improved through the inclusion of pre-negotiated and more formal and detailed Terms of Reference for the RCOs at the time of submission/endorsement.

3.2 Amendments to Proposed Evaluation approach

There were no amendments to the original evaluation approach as defined in the Inception Report and as outlined above under 1.2 Scope and Methodology.

3.3 Analysis of LFA/Results Framework

The following Table is a summary assessment of the original Results Framework to assess whether it was designed effectively around the expected SMART Targets for Indicators. The full review of Indicators and Targets is included as Annex 1. Actual delivery on these indicators is analysed in Section 5. Project Results. The table reviews the targets for various activities under each outcome as a percentage of their effectiveness as SMART indicators of delivery

OBJECTIVES AND OUTCOMES	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENT
To assist vulnerable developing countries to implement sustainable, risk-based mechanisms for the management and control of ships' ballast water and sediments in order to minimize the adverse impacts of aquatic invasive species transferred by ships	100%	100%	100%	100%	100%	All indicators at the overall Objective level are SMART

Learning, evaluation and adaptive management increased	80%	80%	80%	1000%	100%	Use of terminology like "Low staff turn-over' and 'High Country buy-in" is not specific or measurable and the overall timescale was clearly not achievable, therefore the target was not
BWM Strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level	87.5%	94%	100%	100%	94%	Facilitation of participation of other countries by RCOs is not Measurable (no actual numbers) and there is no timescale given. Also, the requirement for all LPCs to adopt new legislation etc. is not specific and should have related specifically to legislation required by the Convention. PBBS should have had a 'specific' requirement for capture of lessons into guidelines (in the event GBP did this anyway)
Knowledge management tools and marine monitoring systems are effectively utilized to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, and enhance maritime sector communications.	100%	100%	100%	100%	80%	A GMEIS system was apparently not Achievable or Relevant HOWEVER something similar by way of a database was required – just a matter of terminology and function. Use of "Timely' is not really a Time-Bound indication
Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions	100%	100%	100%	67%	50%	Sediment handling pilot site not relevant and guidelines much more appropriate. Also, just providing funding for 10 tech. projects etc. is not relevant. No assurance of value and no defined datelines/timescales

In general, the Indicators, or more specifically, their targets have been SMART by design with a few minor exceptions and this is generally a well-designed Results Framework in the context of its measurable/verifiable indicators.

3.4 Assumptions and Risks

The following Table lists the primary risks and assumptions related to the overall objective and each of the four outcomes, along with the measures taken to overcome the risks and to confirm the accuracy of assumptions.

RISK OR ASSUMPTION IN PRODOC	REALIZATION AND MITIGATION
IMO Member States will continue to develop and finalize all BWMC guidelines.	This assumption has been accurate in that, as countries ratify and the Convention comes into force they will be obliged to incorporate these guidelines into national policy and legislation

Approved BW Treatment Technology solutions will be available in time for the shipping industry prior to the BWMC entering into force	This has been a major risk and concern and is still ultimately being addressed. Approved technologies are available but are not always appropriate and still having 'teething' problems as well as significant associated costs. This is an 'on-going' process – inevitably
Flexibility is built into the project for adaptive management. IMO Office of BWM offers significant backstopping support	This assumption has been wholly accurate with excellent flexibility in terms of adaptive management and equally efficient back-stopping by IMO
Country buy-in and political support is paramount to ensure LPIR and planning recommendations get carried out	Country buy-in has clearly been substantial and all country focal points and stakeholders are fully supportive of the process
Amongst the partnering regions, the aim is for countries to develop and agree on a regional BWM strategy. Support of Contracting Parties of the Regional convention for adopting the Regional Strategy is essential, for sustainability of efforts	Regional Task Forces have been adopted for seven regions and regional strategies and/or action plans have been developed for 12 Convention regions
Flexibility for adaptive management is assumed, with the PCU empowered to respond to information requests from (not yet participating) LMEs, and able to build in opportunities for GB pilot country experts to assist in regional and global activities.	The adaptive management process has been superlative and is one of the outstanding features for this Project as noted by all stakeholders
The GloBallast Industry Alliance is developed early during year 1 and forms a close partnership, meeting regularly with GPTF	GIA is an active and effective partner which does indeed cooperate and collaborate closely with the GPTF and is a model that can be used for other Projects that are/will be working with the private sector

In looking at other challenging areas that may not have been considered during the original project design, political risk appears to have been one of the primary risk issues encountered. In some areas where the Project was implementing activities, a considerable amount of political instability arose during the Project lifetime (particularly in some of the Arabic-speaking countries such as Yemen and Egypt) which created unexpected constraints and delays in implementation, and in signature/ratification of the Convention. The Arab Spring phenomenon certainly interfered with potential delivery of project activities in some areas, while political unrest and uncertainty generally (e.g. Venezuela and later Turkey) delayed the process.

One other risk that may have not been foreseen, but which was raised during the course of the evaluation process, was the inevitable concern which countries may have had over the potential economic implications of ballast water management requirements to the shipping industry and how this might possibly reflect on their own national economies. The Risk Assessments and Economic Assessments were geared toward providing a strong case to support the economic advantage of effective ballast water management in terms of the value of renewable living marine resources that may be lost as well as the threats to industry. However, the PCU and IMO noted that the results of these assessments should ideally have been refined into short but concise Briefing documents targeted at policy-level decision-makers (e.g. Ministers or Directors-General).

In the context of potential future risks, if (for some reason) the proposed GloFouling project does not go ahead then this could stand to undermine the entire shipping Industry / Invasive Species control efforts. Undoubtedly, there have been obvious successes achieved in the context of ballast water management and associated invasives. A lack of control and management of those potential invasive

species being transmitted through hull-fouling would create yet another route for this pernicious process of alien colonisation with the associated threats and impacts.

Climate change may be an additional, exacerbating factor in the ballast water and invasive species issue. There is evidence beginning to show up in the scientific literature that climate change may be opening up more viable areas for invasives where they could not previously have established. It does seem like the Arctic is now going to be an important focus for controlling invasives introduced through ballast water as it becomes more open to shipping routes.

3.5 Lessons from other relevant projects

The Project Document does not list specific lessons that could be transferred or captured from other relevant projects. This, however, not too surprising as this is a unique global project working closely with industry partners to evolve mechanisms that ensure ratification and entry-into-force of a new Convention on mitigating the effects from invasive species. The only real comparison is with the previous 'pilot' phase project and the Project Document does make it clear that the GBP Project will build on the achievements and momentum, and utilizing the capacity and talent generated by the pilot phase.

3.6 Stakeholder participation

The Project Document includes an annexed Stakeholder Involvement Plan that identifies clearly the fact that Ballast water problems are inter-disciplinary in nature and that the success of the project depends on the full involvement of a broad group of stakeholders. It further notes that the experience from the pilot phase has provided a good indication of the main actors that should be involved and lists those same stakeholders (without precluding the participation of additional partners). The list provided is also linked to the expected roles of specific partnering organisations in the Project. The Stakeholder Plan then continues with a review of the consultation process that has taken place during the project design phase. Listing the regional workshops and meetings that were held in the high-priority regions to discuss GBP participation, to secure engagement and commitment from the Governments, to identify and agree on the regional coordinating organization (RCO) and to identify key stakeholders and partners, including shipping industry. It then lists the stakeholder engagement activities planned during implementation and evaluation, including topics, groups involved, and outcomes and provides a discussion on the intended long-term involvement of stakeholders in decision making and implementation. The Plan concludes with a description of the expected impacts of the Project on beneficiaries and vulnerable groups, especially indigenous communities, women and displaced households.

3.7 Replication approach

This entire project has a major focus on replication and one of the objective approaches listed in the Project Document is that of 'Replication of best-practices and technical activities in newly identified beneficiary countries with the view to stimulate policy reforms at national level'.

Since the pilot phase reached a successful conclusion and since the BWM Convention was adopted, IMO has received overwhelming demand from developing countries worldwide for programmatic support for replication of GloBallast activities and technical assistance. During its July 2003 session, the Marine Environment Protection Committee (MEPC) of IMO acknowledged the substantial contribution of GloBallast in addressing ballast water related problems and requested IMO to

approach UNDP, GEF and other potential donors and partners to explore the possibilities for upscaling and replication of the successful activities initiated during the pilot phase.

Consequently, the GloBallast Partnerships project has been designed to provide a programmatic framework for the sustainable replication of ballast water management and control measures, ensuring that maximum benefits accrue from the foundation work achieved in the pilot phase.

The Project Document notes that replication is a key feature of the three-tier implementation modality being adopted for GloBallast Partnerships. In that respect, it further notes that this globally directed, regionally coordinated and country-based project is ideally suited to replication and the sharing of best practices.

The Project Document explains that replication will be enabled through the following mechanisms:

- The work done by the LPCs will be shared regionally with other partner countries (PCs) and replicated. All countries that endorse the project in the priority regions will be treated as an active partner and provided with information.
- The training approach taken for LPIR and CME development is a 'train-the trainers' approach, with project mechanisms in place to ensure that trained experts can in turn train other regional and national colleagues.
- The close linkages being established with the Regional Seas and LMEs aims to ensure the replication of project activities on a much broader scale.
- Replication will be further enhanced through the networking efforts of the PCU and partners.
- While the main focus is on 6 regions, there are 8 additional regions directly involved (from the pilot phase countries and through the EBRD supported training workshops). This wide level of inclusion encourages and supports replication of lessons learned and best practices.
- Through the GloBallast website / GMEIS portal, the GBP quarterly newsletters and the several reports to be prepared as IMO monographs, there have been many opportunities for other interested countries to learn from the GBP efforts and replicate them.
- The project has been designed to provide useful lessons that can be adapted to other countries and regions. GloBallast Partnerships aims to share its experience and findings with other GEF International Waters projects involved in marine and coastal management (ICZM and LME) and to provide the necessary tools to address the ballast water issue in an integrated manner.
- The project aims to promote dissemination and replication of its best practices and lessons learnt through the GloBallast Web Portal, and through specialized communication projects such as GEF IW: LEARN. The training package designed in the pilot phase can be enhanced and delivered at new locations and made available worldwide through the maritime training institute networks as well as through an e-learning module.

3.8 UNDP comparative advantage

There is no direct discussion in the Project Document regarding the UNDP comparative advantage in being the Implementing Agency for this project. However, UNDP has many years of experience working in the International Waters arena and is best placed to provide support to a development-related project of this nature which will need to work closely with many stakeholders and particularly the private sector. UNDP has an established partnership already with IMO through the successful first 'pilot' phase of GloBallast which has worked well and could therefore be expected to continue to do so throughout the GBP project. The working relationship and linkages between UNDP and IMO are discussed later under Section 4.7: UNDP and Implementing Partner implementation / execution, coordination, and operational issues.

3.9 Linkages between project and other interventions within the sector

Generally, the GBP Project maintained a strong link with GEF International Waters portfolio and its projects, particularly the Large Marine Ecosystem projects. Representation from the PCU regularly attended the biennial International Waters Conferences as well as the annual LME consultative meetings.

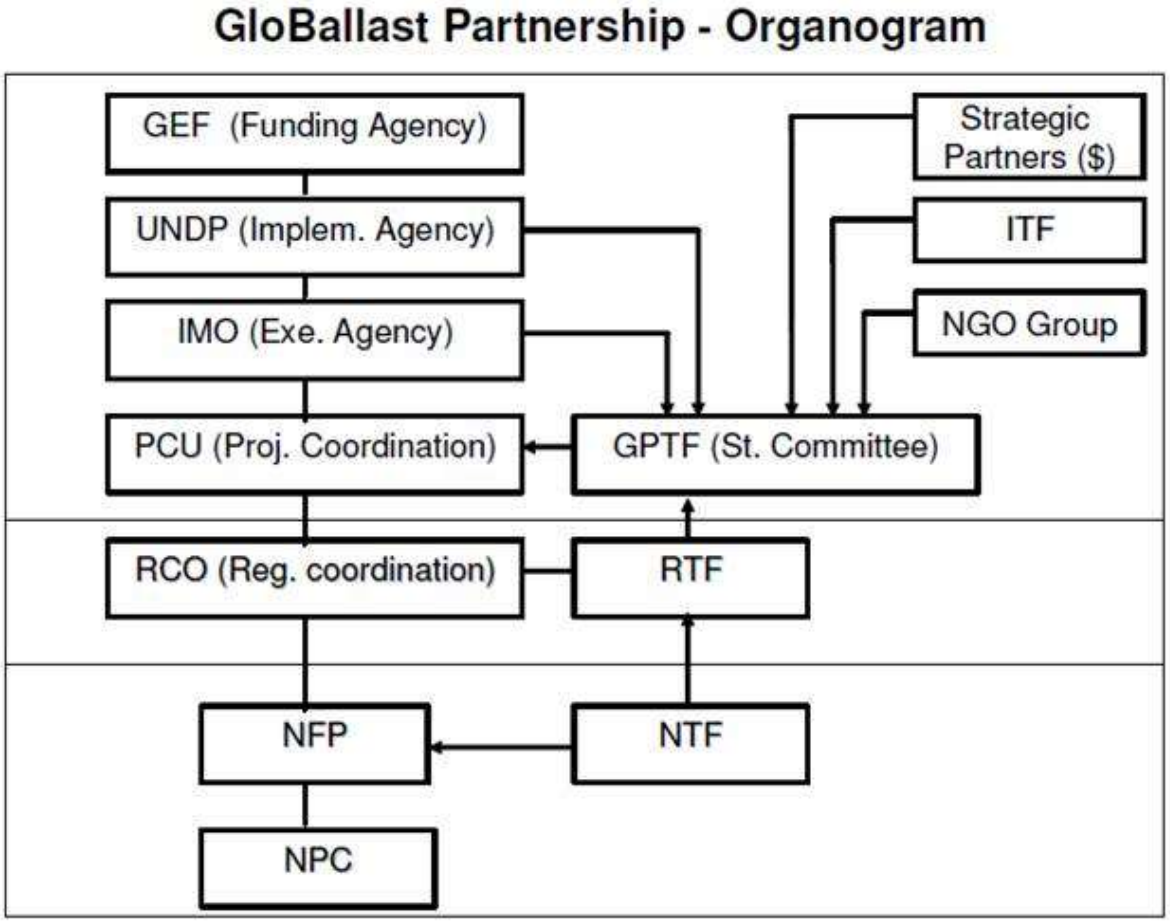
New or follow-on LME projects (particularly those focusing on SAP implementation) have generally included activities related to BWM and the GloBallast process to ensure that participating countries are ready for the Convention to come into force. Generally, there are several references to GloBallast and its inclusion in the LME management process in the TDA/SAP documentation arising from these LME projects.

Some of the specific partnerships with other donors and projects that have been listed by the Project included:

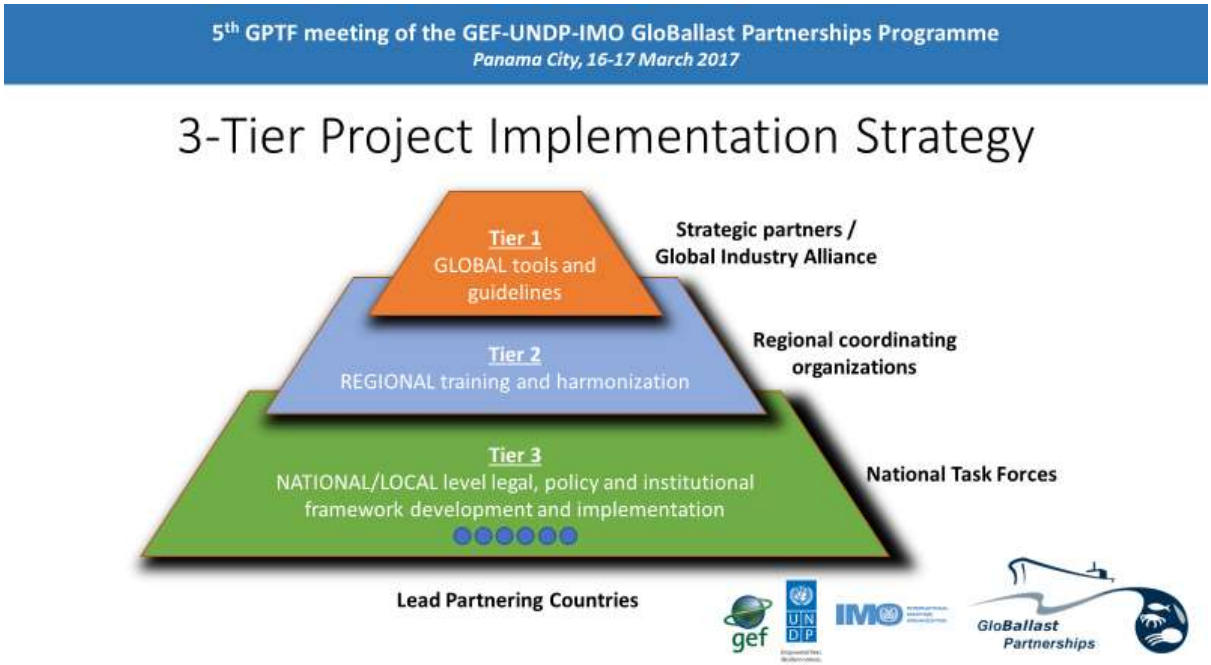
- SafeMed I, II and III (EU-funded BWM regional activities for the Mediterranean) in partnerships with REMPEC and EMSA
- Convention on Biological Diversity - UN inter-agency liaison group on Invasive Alien Species (IAS)
- The International Council for the Exploration of the Sea (ICES) Working Group on Ballast and Other Ship Vectors (WGBOSV)
- Guinea Current LME project, Benguela Current LME project, Humboldt Current LME project, the Agulhas and Somali Current LMEs project.
- GEF Caspian Sea - CaspEco Project (BWM component)
- India-ASEAN Partnership on BWM
- North Sea Ballast Water Opportunity (NSBWO) Interreg Project

3.10 Management arrangements

The following organisational diagram is taken from the original Project Document and highlights the interactive management arrangements for delivering the various activities of the GBP Project and its management and administrative process at three levels (global, regional and local/national). See **Acronyms and Abbreviations** for full names.



The following slide is taken from a presentation given at the 5th and final GPTS meeting and demonstrates more clearly the three-tier management approach to this project



This management structure (now referred to as the Glo-X structure) was considered by all stakeholders to be an excellent one and one that should be considered as a model for other global projects. By being based at the global/international level (and through its location at IMO) the Project had access to the MEPC which is one of the main IMO Committee under which the BWM Convention is discussed. Some stakeholders did feel however that, although it was a very efficient model, the potential weak link was at the regional level and that this needed strengthening while the global level (PCU/IMO) and national level (National Focal Points and National Focal Institutions) were very effective in terms of management. In some areas, the regional components actually fell under the responsibility of Regional Seas Programme consultants who had only been seconded to their posts for a period of 18 months and therefore had limited background knowledge and no continuity or sustainability. It was also noted that it would have been useful to have an alternative National Focal Point identified at the beginning of the Project so that such a person could be copied into communications and could represent the primary NFP in that person's absence while maintain an overall understanding and linkage to the project.

A flexible Adaptive Management approach was clearly adopted by the PCU and by IMO. All of the countries noted that they were very responsive to the needs and unique challenges of each country. Countries further noted that, if they brought any project-related problems to the attention of the PCU and IMO, they received an immediate response and support as appropriate.

Also, it was noted that the Regional Coordination Organisations, as partners in the management process, were a valuable link between the global level management strategy (i.e. the PCU and IMO) and the national level focal points once they were fully up-to-speed and capacitated. The RCOs created opportunities for harmonised and coordinated regional events and support and now, with the Convention entering into force, they will be in a position to sustain the momentum.

One disadvantage of working within a large UN agency can often be the challenges resulting from the somewhat complex and time-consuming recruitment processes and associated post classifications. This is a common constraint noted in many Projects but is balanced by more effective execution by a GEF-recognised body with sufficiently comprehensive auditing and regulatory processes to ensure transparency and due process. Such due process is necessary but can be time-consuming and there

can sometimes be a risk within such an organisational arrangement that everything has to be signed off at a high level, despite the budget and work-plan having been pre-approved by the Executive Committee. This can be overcome through the allocation of greater responsibility for such decisions to the Project Managers themselves, which is a useful lesson that has been learned through a number of similar GEF projects.

So, generally, the Project and its PCU were seen to provide very good feedback and response to any requests for assistance. The PCU was also considered to be very effective at following up on such responses as well as diplomatically chasing the progress of activities that needed to be carried out both at the national level and in the region. IMO also had a very visible presence in the Project and UNDP consistently attended the GPTF and other regional and global level meetings.

Several stakeholders referred to the use of the term "GloBallast Family" as indicative of the excellent relations between the countries and the PCU at IMO. They were variously described as being "a pleasure to work with", "very trustworthy and honest", etc. The real concern among all of the stakeholders was the potential loss now of the PCU (and the excellent support service that it has provided) with the closure of the Project. Serious consideration needs to be given to maintaining this support process through some mechanism at this crucial juncture as the Convention comes into force and as more and more countries and stakeholders will be seeking advice and guidance on BWM issues.

The role of the GPTF and the Executive Committee are discussed in more detail under Section 4.6: Monitoring and Evaluation: design at entry and implementation (below).

4. PROJECT IMPLEMENTATION

4.1 Adaptive management and actions taken on feedback from M&E

Although stakeholders were frequently of the opinion that this was an extremely optimistic and complex project with a lot of varied tasks, it was also the general opinion that this complexity was balanced by the actively adaptive management approach used by the PCU and other project management and advisory groups. It was considered unusual for a Project of this nature (requiring so much activity and delivery at the level of the developing countries) to be able to delivery so effectively, especially the BWM strategies. Having the Project hosted by the organisation that was overseeing the negotiation of the Convention and having the links to the Technical Cooperation Division of IMO was enormously valuable for coordinating the Project with Convention development. In essence, this gave the Project direct links to the 172 IMO member states. Inevitably, the Project also then had the back-up and assistance of the entire IMO administration and technical staff which, as the prime international agency dealing with the shipping industry and maritime affairs, was also of enormous value and support to the Project. Then, having the Regional Coordinating Organisations (RCO) as the next-level entry into the regions helped to continue this coordination process down to the country level.

One of the primary and outstanding adaptive management actions taken as a result of feedback from the monitoring and evaluation process was that of extending the project in parallel with the ratification of the Convention and the research and development process for treatment mechanisms. The various project extensions were a necessary and important requirement to allow enough countries to ratify to bring the Convention into force, while improvements and advances were being made to the technology and to the capacity to implement the requirements of the Convention.

Many of the countries felt that it was asking too much for them to meet the requirements of the Project within the 5-year timescale in view of the requirements for Port Assessments, Economic Assessments and then legislative reforms and institutional realignment and strengthening within a Ballast Water Management Strategy (the latter part requiring formal approval at the higher ministerial level). In this context, it was a very steep learning curve for the National Task Forces and one of the big challenges was raising awareness enough to ensure understanding and support at all levels. The Political cycle and associated changes in senior ministerial personnel also created awareness problems. The various extensions then were necessary to sustain the momentum and delivery of the project at a critical 'half-way' point. Notably, these were 'no-cost' extensions made possible through careful management of the project budget but also through substantial co-financing support, primarily from IMO, the GIA and EBRD as well as some other partners.

Another excellent example of Adaptive Management by the project was the creation of GloBal TestNet. As the Project Document recognised:

> *A crucial part of the effort to reduce the threat of invasive alien species carried by ballast water is in the area of research and development into cost effective treatment solutions and the proper disposal of ballast water tank sediments. GBP is planned to commence early in 2007, running until 2012. As indicated in the BWM Convention, ships less than 5000 metric tons (inclusive) will be required to have on-board treatment systems in place by 2009, with larger ships having an extended deadline until 2012. This means that during the period of GBP, it is essential that the current technology hurdles are overcome, and effective treatment solutions have been scale tested and installed.*

The industry recognised the potential concern here in the context of identifying suitable on-board treatment mechanisms and making them available and practical for use on ships. It opened up a dialogue on this area of concern with IMO and the GloBallast Project and the outcome of this process was the development and establishment of GloBal TestNet "To promote comparable and accurate test results on the performance of ballast water management systems for certification, through an open exchange of information, transparency in methodologies and advancing the science of testing." (http://www.globaltestnet.org/home). The Global Ballast Water Test Organizations Network aims to increase levels of standardization, transparency and openness in testing ballast water management systems. Various ballast water management systems are currently being developed by several organizations to cater to the emerging ballast water treatment market. Such treatment technologies are required to undergo a rigorous testing and approval process but comparability between test results needs improvement.

The GloBal TestNet network was officially formed in October 2013 when representatives of 16 ballast water treatments system testing organizations came together to sign a Memorandum of Understanding whereby they agree to.

- discuss or share methods, analyses, procedures and protocols used to support certification testing, and provide insight and lessons learned, to help improve the overall quality and efficiency of Ballast Water Management Systems (BWMS) testing by:
- participation in quarterly correspondence by each Member via website, email list, conference calls etc.
- participation in annual meetings by each Member, but representatives do not need to attend in person.

- build awareness of, and coordinate where appropriate with, various Member testing activities;
- work together toward consensus on standardization, to the extent possible, of test and analytical methods and approaches, to increase the comparability and accuracy of results among tests;
- when possible, participate in cross-training and inter-calibration among the Members to increase comparability and consistency within GloBal TestNet;
- when appropriate, assist in vetting or validation of new testing methods and analyses; and
- encourage diverse input from scientific experts, including those outside the ballast water testing community;

GloBal TestNet now operates independently from the project and from IMO. It has its own MoU, along with a Chair and Vice Chairs representing 3 regions. The Secretariat and the Chair are rotational (secretariat currently with Plymouth Marine Laboratories (PML). TestNet also has its own bye-laws and its own website. It is possible that this model and the GIA itself as well as TestNet could become a vehicle to develop other new partnerships related to biosafety.

Another logical 'adaptive management' decision taken by the Project (and endorsed by the Executive Committee) was to drop the original requirement for a Sediment Handling Pilot activity. This threatened to use up substantial GEF funds and was considered an unnecessary expense for the Project. The process is very straightforward and depends primarily on identifying a holding area reasonably close to a dry-dock. Instead, the Project focused on providing specific guidelines for sediment reception facilities, which were published as GloBallast Monograph 23: "Guidance on Best Management Practices for Sediment Reception Facilities under the Ballast Water Management Convention".

Yet another example which shows a direct response to a request through an M&E process is from the 4th GPTF of November 2014 whereby one of the Priority actions as per the previous 3rd GPTF list of actions and new requests from LPCs and RCOs included the request to "Update the CME training package, in particular to include a module on sampling". In response to this the PCU made sure that a new Section 5.8 was included in the Module 5 of the GloBallast CME training package, developed by an Expert Task Force which met at IMO just after the adoption by MEPC 65 of the Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2) (BWM.2/Circ.42) and served as guidance for hands-on sampling and analysis training courses. Budget amendments were identified and agreed to send experts on training on sampling and analysis of ballast water at the national level.

Furthermore, and in relation to this decision, it was decided (at the same GPTF4) that each LPC will receive a dedicated workshop on Sampling and Analysis of ballast water including a hands-on training on board a ship. However, due to the logistical challenge to organize such activity in the additional countries 13 countries (Colombia and Jordan having already received such training in 2014) in the remaining timeframe of the Project and considering the availability of the few international consultants able to deliver such trainings, the PCU proposed to amend this activity and instead to organize a "train-the-trainer" workshop where experts from each LPC will be trained on this topic, so that these trained experts can deliver any follow up national trainings.

To limit the cost and to have less participants and a better interaction during the training, it was decided to organize 2 events: one in the US for the South American and Wider Caribbean countries, and one in Turkey for the Mediterranean, Red Sea and Gulf of Aden and West and Central African countries. The issue was raised that LPCs specifically requested training on this topic at the national level and not at the regional level during the GPTF, but the fact that this "train-the-trainer" activities are expected to be followed by national activities would mitigate the risk from such a change. In fact, the most important aspect was to ensure the proper delivery of the outcomes for the Project, using adaptive project management. The new activities were therefore endorsed by the ExCom on the condition that a special letter to the LPCs and RCOs was be sent by the PCU to explain this new concept, and that the participants to these events will be selected with extra care to ensure that the future "trainers" will be the correct people (PSCOs and marine biologists)." The Letter was then circulated to all the LPCs and RCOs and the two regional Train-the-Trainers' workshops were consequently organised and successfully delivered. The follow up at the national level has already been conducted in 13 out of our 15 LPCs. These training activities were "hands-on", with all participants being trained on-board a ship and in specialised marine biology laboratories.

GMEIS (the Global Marine Electronic Information System) was a requirement within the Project Document but was never really appropriate for this project as A. It was a very 'optimistic' requirement in view of the limited dollars that had been allocated in the Project Document for this activity and B. such databases already existed and it was more a case of bringing these together and discussing what might be needed by the ballast water management process. This adaptive management decision-making process is discussed in more detail under 5.1 Overall Results and is yet another example of sensible adaptive management decisions supported by formal consensus and agreement.

The Project was also adaptively implemented in such a way that a Lead Partner Country could step back (if, for example, it was not finding it possible to meet the commitments of LPCs to the Project) and change places with a Partner Country which, in turn, could step forward and take on the full commitments of an LPC. Also, there were initially only 13 LPCs identified in the Project Document. Both Panama and Nigeria were added after the Inception phase at their request. Good interaction was also developed between the LPCs and the PCs through twinning activities.

The extension of the project worked out effectively for a number of reasons. It used existing human resources within IMO rather than having to extend funding to cover positions, which constituted additional co-funding without any requirement for GEF additional support. IMO's Technical Cooperation Fund also provide support for activities while countries were required to provide support though venues for training, workshops, etc. For example, ITCP (Integrated Technical Cooperation Programme - IMO) provided funding through REMPEC (Mediterranean) RCO to assess the level of implementation of the Mediterranean Strategy on Ships' Ballast Water Management. Although this is still on-going, it should be completed this year.

Generally, most stakeholders have noted the flexibility of the Project in addressing constraints and concerns and the willingness to adapt aspects of the ProDoc and its delivery to changing circumstances. This is a very important 'adaptive management' requirement for all projects and staff working on other similar projects (especially the Project Manager) as well as the Executing Agency need to recognise this requirement for flexibility and adaptiveness in such a Project that if not necessarily always in line with the core EA company values and 'career' based attitudes. This also reflects the need for more training for Project staff at the inception and early implementation stage in order to impress these values into the project. The overall stakeholder consensus was that the management of the project by IMO and by the PCU was very responsive and well-calculated, and this was significant in helping to build partnerships and in the development of country support and ownership.

4.2 Stakeholder Engagement

As noted above, the Project Document includes a Stakeholder Participation Plan. Furthermore, during the PDF-B phase, regional workshops / meetings were held in the high priority regions to discuss GBP participation, to secure engagement and commitment from the Governments, to identify and agree on the regional coordinating organization (RCO) and to identify key stakeholders and partners, including shipping industry.

When the project began, a comprehensive set of stakeholders were invited to assist in the development of the Implementation Plan. Stakeholders were also involved in the National Task Forces at the country level through specific requirements of membership laid down by IMO. The Project was, in fact, instrumental in bringing together the maritime and marine private sector with the Ministries of Shipping and the Ministries of Environment as well as academia and scientists.

As one of its Indicators, the Project had the requirement that, by end of year 2, more than 250 stakeholders from pertinent ministries, industries and training institutes have participated in BWM modular course. In fact, the confirmed list of stakeholders engaged in the training processes and modular courses during the project is significantly greater than this.

The MEPC of IMO was kept informed of the progress of the Project and its various activities and outcomes, but there was no formal or required interaction between MEPC and the Project.

As a result of lessons from GloBallast, goth the 'offspring' Projects (GloMEEP and GloFouling) will also engage industry at an earlier stage.

It is reasonable to conclude that stakeholder engagement has been comprehensive and successful throughout this project, unsurprisingly so as one of the prime objectives was partnerships and collaboration with all stakeholders

4.3 Partnership arrangements

A number of stakeholders drew attention to the fact that the Project had managed to use its position within IMO to help to create strong working partnerships with industry and particularly the Global Industry Alliance. The overall GloBallast 'family' atmosphere of the project was cited by many stakeholders and partners.

One valuable lesson captured through the GBP Project has been that partnerships do not always need to be formal in nature and simple agreements between two bodies with mutual interests can be just as efficient. An example cited was the relationship with EBRD in which agreement was reached over the supportive activities that were needed and EBRD was able to channel the funds to support such activities directly to the countries without having to raise and agree a formal MoU with IMO which would have been time-consuming and complicated by legal concerns and constraints.

In 2010, GloBallast and the European Bank for Reconstruction and Development (EBRD) along with Royal Haskoning DHV formed an innovative partnership to build ballast water management related capacity. The partnership (entitled the IMO-EBRD Marine Biosafety Initiative - MBI) consisted of GloBallast agreeing to provide all the training materials to conduct training courses and EBRD agreeing to promote ballast water management throughout its donor and recipient countries and to provide funds to organize training programmes. The partnership uses a series of capacity building tools

developed by the GloBallast Partnership Project and targets a broad group of stakeholders in the selected countries, with a strong focus on the private sector. This series of training courses has been aimed at assisting the member countries to put in place appropriate legal and policy frameworks that will drive the compliance process and at the same time prepare the ground for investment in related infrastructure such as sediment reception facilities, shipping fleet modernisation and technology development and commercialization. The capacity building activities have also provided the private sector with the right technical and institutional skills to meet the international requirements of the countries they trade with. The primary objective is that this will lead to the protection of the regional shores, coastal economies and public health from the biosecurity risks related to the transfer of harmful organisms and pathogens by ships' ballast water and sediments. Somewhat innovatively, the project didn't bother to develop or sign any MoUs which would have taken time and legal input. Instead, EBRD channelled its support funding (an initial $350,000) directly into the countries where GloBallast was working and which were eligible for EBRD support. The GloBallast project then provided the training course guidelines etc. They started with Russia, Ukraine and Turkey, funding the consultants and training workshops with assistance given by IMO in identifying the right experts. This was organised through the EBRD resident officers in-country and alongside the RCOs for the relevant countries. EBRD found the GloBallast training modules to be of a high quality and very practical in nature. This proved to be such a successful model that EBRD then went on to do further countries (e.g. Georgia).

EBRD, as a major financial institution, has a strong ethic focusing on compliance and reputation. This includes the need to do Social and Environmental Screening on all projects and funding initiatives. EBRD provides financial assistance to the maritime and shipping industry. If a company needs to build new ships, refit older vessels of if a country wants to build a port then they may approach EBRD for funding. In this context, when dealing with the shipping and maritime sector, it has been pushing hard for the private sector to comply with the expectations of the Convention although this has often required EBRD to support this with training and awareness raising as well as guidance on how the industry can and should comply. Now, with the Convention coming into force, this is no longer a case of negotiating such a condition on a loan or financial instrument, this is an actual legal requirement which now makes EBRD's compliance requirements a non-negotiable, mandatory condition of any financial agreement and places the onus on the client to take the necessary measures to be able to meet the compliance standards.

Furthermore, EBRD then partnered in the development of a model on how to invest in ballast water management and shared this with other regional banks as the 'Ballast Water Management Infrastructure Investment Guidance'. This document explains the Ballast Water Convention from the point-of-view of the banking and investment sector and what it means in terms of compliance within the industry sector as well as highlighting the opportunities for investment related to the Convention and ballast water management *per se*. In effect, this is a proactive approach to leveraging investment in ballast water management driven by the financial institutions. Several bankers and financial institutes have already been discussing this modality with EBRD and seeking further advice on the financial implications of the Convention. This is an important potential sustainability tool for GloBallast. It is understood that EBRD and IMO are now negotiating an MoU whereby EBRD will provide similar support and leveraging of finance in relation to all of the Conventions and Protocols that fall under IMO's remit.

Industry has three groups of partners working with the Project. The Research and Development partners, the equipment manufacturers, and the shipping and maritime industry itself. The development of the various treatment systems has required a lot of interaction between the Project, the Research and Development companies and the shipping/maritime sector and has helped to evolve good partnerships within industry and between industry and the countries. Generally, the Project and

its activities and the requirement for the development of technology has created a stronger relationship with the shipping industry.

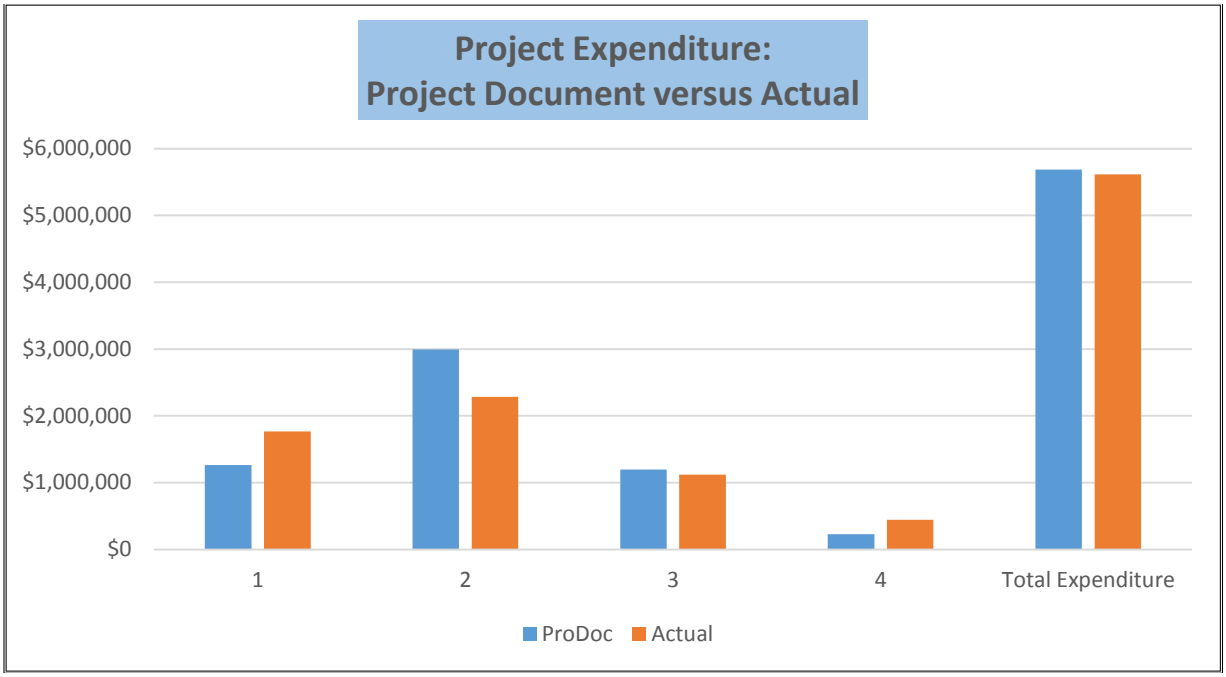
In summary, it was notable from the evidence that there had been good outreach by the project to all countries and stakeholder partners. The PCU and its associated activities helped significantly in developing good working relations and interactions across and between countries and with the various private sector partners.

4.4 Project Finance

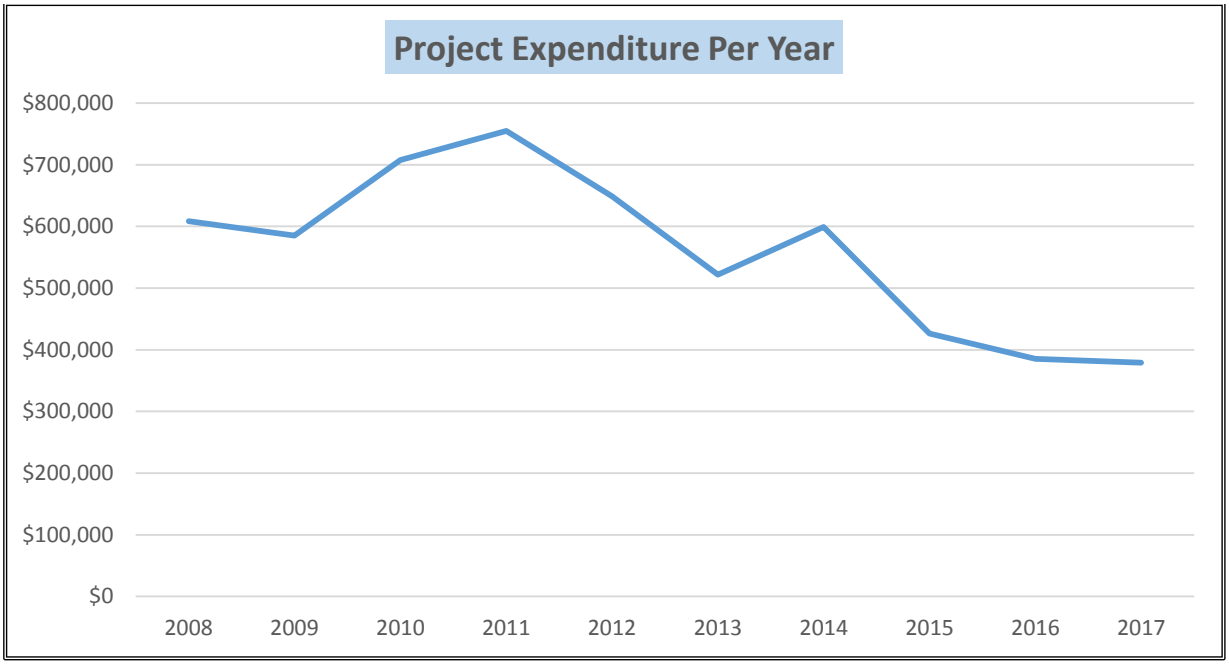
The Terminal Evaluation has analysed the expenditure of the project and can confirm the following scenarios:

Actual expenditure versus estimated expenditure as predicted in the Project Document shows that less of the GEF financing was used for Outputs 1-3 than had been expected while more was invested in Output 4. In hindsight, this is not surprising as Output 4 focuses on the actual partnerships for developing the necessary technology for ballast water treatment which was the one potential constraint/delay on ratification. This would also be where the bulk of the Private sector co-financing would have been focused. It is also notable that, when the project extended from the original 5 years to 10 years, there was then a need for additional budgeting to support the PCU (particularly human resources) and these resources were strongly supported by IMO itself. Output Two was allocated with the greater level of GEF funding as this was the Output that aimed to deliver the Ballast Water Strategies and associated legal and institutional reforms. Nevertheless, the actual funds used from GEF toward Output Two was 25% less than initial expected. This may well be a reflection of the fact that the Lead Project Countries actually made an enormous co-financing contribution to this process themselves, allowing some of those funds to be used to support the necessary extension of the project activities in parallel with the ratification process (see review of co-financing below).

OUTPUT	PRODOC	ACTUAL
1	$1,265,000	$1,768,165
2	$2,995,000	$2,284,545
3	$1,198,000	$1,117,998
4	$230,000	$444,577
Total Expenditure	**$5,688,000**	**$5,615,285**



In assessing the Project expenditure by year (see table below) it demonstrates a pattern that is very close to the standard outgoings for the 'average' project, peaking about one-third of the way into the project as activities really get underway and then slowly dropping off with a second peak toward the end as the Project undertakes aspect of fine-tuning and adaptive management to ensure a successful finish to the project.



Both of these scenarios demonstrate a sound use of project funding.

In reviewing the co-financing situation for the Project, the following Table provides a comparison between the funding committed within the original Project Document and the actual funding realised at the time of the Terminal Evaluation.

ORIGINAL FINANCING AS COMMITTED IN THE PROJECT DOCUMENT VERSUS ACTUAL RECEIVED AT BY TERMINAL EVALUATION

SOURCE	COMMITTED IN PRODOC		ACTUAL CONTRIBUTION	
	CASH	IN-KIND	CASH	IN-KIND
GEF	$5,668,000		$5,236,449	
IMO	$498,000	$3,820,800	$1,967,329	$8,281,620
Private Sector	$1,000,000	$2,133,340	$1,006,000	$3,484,400
Regional Coordinating Organisations		$2,831,670		$3,082,720
Lead Partner Countries		$6,655,629		$13,502,500
NGOs	$362,500	$400,000	$471,000	$1,721,000
Pilot Countries	$0		$500,000	$5,100,000
Other Governments	$0		$981,000	$6,855,500
TOTAL NON-GEF CASH	$1,860,500		$4,925,329	
TOTAL IN-KIND		$15,841,439		$42,027,740

The GEF funding for the Full Project Document delivery was $5,668,000 while the original co-financing commitments (cash and in-kind) were $17,701,939. The ratio committed in the Project Document was therefore $3.1 Co-financing : $1 GEF.

At the time of the Terminal Evaluation, the project had spent $5,236,449 and had actually leveraged a further $46,953,069 in co-financing realising an actual ratio of $9 Co-financing : $1 GEF.

This shows a significant increase in the actual leveraged co-financing by nearly 3 times as much as was originally committed. Much of this has been contributed by the Executing Partner (IMO) in support of the GBP project, with an actual cash contribution of 4 times its original commitment and an overall co-financing input amounting to nearly twice the contribution from the GEF fund. Several stakeholders commented that they felt the strong linkages built between the Project and IMO's Technical Cooperation Panel helped to secure substantial additional co-funding of this nature.

The Private Sector has also met and notably exceeded its original commitments and the Lead Partner Countries have similarly more than doubled their estimated in-kind contributions. The Pilot Countries and other Governments have also contributed significantly when they had not originally made such commitments. IMO is to be commended on its success in creating such actual 'buy-in' and real support from these various partners in this truly 'Partnership' project.

It is worth noting that, in considering both this GBP project and previous pilot project, approximately $12 million of GEF funding has been expended over a period of 17 years which approximates to some $700,000 per annum. In starting from 'scratch' to the point where a major Convention (with enormous global stress reduction implications) is about to come into force, this is extremely good value for money and a very worthwhile return on GEF's investment.

On minor concern raised by the stakeholders relates purely to administrative process and not to any irregularities whatsoever. In terms of Project Management, it was sometimes difficult to see where

activities fit into original budget. Ideally the project may have needed two budgets, one for IMO (which was compulsory for the Executing Agency) and one for the Project itself which linked directly to activities and outputs. IMO has its own financial management system, but the Project also had to work with the UNDP ATLAS budget spreadsheets and this presented some problems in terms of resolving the differences between the two and harmonising expenditures.

4.6 Monitoring and evaluation: design at entry and implementation

Various standard monitoring tools have been used throughout the project design and implementation. The M&E requirements, as specified in the Project Document, have been followed carefully and effectively as is discussed below. Implementation of the project M&E process has been highly satisfactory with all reporting procedures addressed in a timely manner and with appropriate interaction and follow-up between the various management bodies. The various primary M&E processes and deliveries are discussed below.

GEF Tracking Tool:

A GEF Tracking Tool was completed in 2012 and a final one in 2016. The 2012 Tracking Tool was the first as GEF TTs did not come in as a requirement until after the MTR was drafted and submitted. All of the indicators addressed in the Tracking Tools focus on Process rather than Stress Reduction. As GloBallast is currently the only global GEF project with strong shipping industry links, some of the GEF tracking tools are not that relevant. Despite this, the GloBallast Project did manage to 'adapt' appropriate indicators to fit this somewhat unusual global initiative.

Generally, the two Tracking Tools for 2012 and 2016 are listing the same ratings as given below, where applicable to the GloBallast Partnerships project)

GEF TRACKING TOOL PROCESS INDICATORS				
INDICATOR	2012 STATUS	2012 RATING	2017 UPDATE	FINAL RATING
Regional or global legal agreements and cooperation frameworks	The BWM Convention has as of today 36 signatories representing 29.07% of the world fleet tonnage. For entry into force, 30 signatories representing 35% is needed. Some 75% of the current 36 signatories have been involved in GloBallast activities	3	The BWM Convention has (as per 26/05/2017) 56 signatories representing 53.78% of the world fleet tonnage. The Convention has achieved its entry into force criteria, which will happen on 8/09/2017. Some 70% of the current 56 signatories have been involved in GloBallast activities.	3
National Inter-Ministry Committees (IMCs)	All 15 Led Partnering Countries have established National Task Forces on Ballast Water Management	4	All 15 Led Partnering Countries have established National Task Forces on Ballast Water Management	4
National/Local reforms	Legal review and reforms under way in all 15 Lead Partnering	3	Legal review and reforms under way in all 15 Lead Partnering Countries, but at	4

	Countries, but at different stages of implementation. 11 out of 15 have finalised national strategy, and 10 out of 15 have drafted and/or implemented national legislation		different stages of implementation. All 15 have finalised national strategies and have drafted and/or implemented national legislation	
Proportion of Countries that have adopted SAP (BWM Strategies)	73% (11 out of 15) LPCs have finalised their national BWM strategy and action plan	73%	All 15 Countries have finalised their national BWM strategy and action plan. 14 out of 15 countries have adopted their SAP	93%
Proportion of countries that are implementing specific measures from the SAP (i.e. adopted national policies, laws, budgeted plans)	60% (9 out of 15) LPCs are currently implementing their national BWM strategy and action plan	60%	14 out of 15 Countries are implementing their BWM strategy and action plan	93%

Process Indicator Ratings

1 = No legal agreement/cooperation framework in place
2 = Regional legal agreement negotiated but not yet signed
3 = Countries signed legal agreement
4 = Legal agreement ratified and entered into force

IW:LEARN INDICATORS	2012 RATING	2017 RATING
Participation in IW events (GEF IWC, Community of Practice (COP), IW:LEARN)	Presentations with booth participation and hosting of staff/twinning	Presentations with booth participation and hosting of staff/twinning
Project website (according to IW:LEARN guidelines)	Website in line with IW:LEARN guidelines, regularly updated	Website in line with IW:LEARN guidelines, regularly updated

The above Tracking Tool information reflects the fact that much of the work to improve legal agreements and cooperation frameworks was completed by 2012 but that the project was now waiting for the Convention to come into force (as per the 2017 update). Similarly, the Inter-Ministerial Committees were already in place in 2012. Most of the national strategies and associated national legislation were also under review and adoption by 2012 and had been adopted by 2017. All of the countries have competed their Strategies and nearly all of the countries had adopted the Strategies by 2017 with only one outstanding LPC at that stage, and the majority under implementation. As of the terminal Evaluation, 56 countries are now signatory to the Convention representing well over half of the world's commercial fleet by tonnage.

The Tracking Tool shows a marked improvement in delivery from the Mid-Term period toward the end of the project. With the actual coming-into-force of the Convention, most of the expected indicators of delivery should be fulfilled.

The Project Document itself makes note of the fact that it is primarily Process Indicators that are being addressed in the Results Framework:

> *Most of the indicators for GloBallast Partnerships are Process Indicators This is reasonable given the nature of the environmental problem and its mitigation. GloBallast Partnerships is designed to reduce the threat of invasives through the adoption of legal requirements related to ships' ballasting operations and through the development of processes that can address this requirement. Stress Reduction indicators were identified under Outcome 4, linked to specific demonstration projects for ballast sediment retention and new treatment technologies.*
>
> *During the inception phase, each of the lead countries were to develop their implementation plans, within which indicators will also be included, with emphasis on stress reduction where feasible. So, for instance, once ballast management requirements are in place, baselines can be established for the number of vessels being screened for compliance with ballast management and reporting system requirements. In addition, once the Ballast Water Convention enters into force, baselines can be established for the number of ships that have installed ballast treatment technologies and are implementing approved ballast management plans.*

However, under outcome 4, the demonstration projects for sediment treatment was dropped as an indicator and the new treatment technologies will only be effectively demonstrated once they are a legal requirement and can be formally monitored. So, clearly, as the Convention is not in force it is not really feasible to have Stress Reduction indicators in place at this stage. Nevertheless, the reference to each of the countries developing indicators that have an emphasis on Stress Reduction should not be lost. The BWM Strategies vary considerably but most of them at least refer to some element of monitoring and these indicators should be developed though IMO, possibly as yet another Monograph or similar, to guide the countries if at all feasible. Stress reduction indicators could include such targets as, for example, the numbers of ships entering with port with operational BWM strategies and on-board treatment facilities that are being screened and are meeting the requirement of the Convention (versus those that don't).

Quarterly Progress Reports:

Over the course of the project, the level of detail and input to the quarterly reports has varied and generally decreased. This is common throughout many projects as PMs start out with good intentions at the beginning to provide as much valuable information and then realise, as the Project progresses, that having to do this every 12 weeks is quite burdensome and eats into project administrative and management time. It has often been noted in Evaluation reports that there should be a more fixed template for QPRs provided by UNDP to the projects A. to ensure the necessary information is provided without creating too onerous a task for the Project Manager/PCU and B. to ensure compatibility. The Project Document refers to the Quarterly Progress Report requirements in a very brief paragraph "Short reports outlining the main updates in project progress will be developed quarterly by the PCU. These reports will be submitted to IMO and the PTA, using the UNDP-developed format". However, there is no obvious format or template as such available.

Annual Project Implementation Reviews (APR/PIRs):

APR / PIRs are prepared prior to the Tripartite Project Review (undertaken by the ExCom members) to reflect progress achieved in meeting the project's Annual Work Plan and to assess performance of the project in contributing to intended outcomes through outputs and partnership work.

The format for the APR / PIRs includes the following:

- An analysis of project performance over the reporting period, including outputs produced and,
- where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- Annual Work Plans (AWP), UNDP Country Assistance Evaluations (CAE) and other
- expenditure reports (Enterprise Resource Planning (ERP) generated)
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress
- The PCU will utilize the UNDP/GEF harmonized format for APR / PIR development. The APR / PIRs will be collected, reviewed and analyzed by the PTA, supported by the UNDP/GEF M&E Unit. The APR / PIRs will be discussed in the GEF Interagency Focal Area Task Forces in or around November each year. Consolidated reports by focal area will then be collated by the GEF Independent M&E Unit based on the Task Force findings.

APRs have been delivered on time throughout the Project Lifetime and have captured the requisite information as outlined above.

Role of the GPTF in Monitoring Project Delivery

The Global Project Task Force is the highest advisory body of the Project. The role of the GPTF is to provide strategic advice and guidance on the activities of the Project and ensure the achievement of its development objectives, as outlined in the UNDP Project Document, in a co-ordinated, efficient and cost-effective manner, and to provide a forum for regular and ongoing review and approval of the Project's Implementation Plan. GPTF is attended by GloBallast Lead Countries, Regional Coordinating Organizations, Strategic Partners and Executive Committee members. The PCU provides a Progress Report to the GPTF members since the previous meeting. The GPTF reviews the work-plans and budgeting (as per the UNDP GEF ATLAS-based document budget and IMO's own internal budgeting systems). Discussions consider the financial reporting mechanism between UNDP and IMO, IMO and RCO, and RCOs and LPCs. The RCOs are invited to provide status reports for their region and their regional task forces, following which the LPCs give similar reports at the national level, including the activities of their national task forces. The Agendas then provide for any inputs from Strategic Partners (e.g. GIA, IMarEST, EBRD, Maritime industry representatives such as ICS). Other specific issues are placed on the Agenda as required and as have arisen in the Progress Report (e.g. Capacity building and training.

During the course of the project there have been 5 GPTF meetings following a similar framework/agenda as highlighted above. All the minutes are available and contain significant detail and discussion.

Role of the Executive Committee in Monitoring Project Delivery

As per the GEF-UNDP-IMO GloBallast Partnerships Project Document, the Executive Committee (ExCom) is the highest decision-making body for the Project and consists of representation from GEF-UNDP and IMO. The Project Coordination Unit (PCU) acts as the Secretariat for the ExCom. The ExCom meetings review progress on activities and project financing/expenditure (including co-financing) as reported by the PCU. Any required budget revisions are considered and a plan of activities I presented for the following 12 months. Specific areas and updates of interest and/or concern are placed on the Agenda and discussed as agreed by the ExCom members. Any significant decisions on amendments to project activities and/or adaptive management course changes are made by the ExCom and recorded in the minutes. In particular, decisions on project timeline extensions or alterations to the targets in the LogFrame would be made by ExCom but these were always done in the presence of, or by reporting back to the GPTF for agreement.

During the course of the Project there have been 5 scheduled meetings of the ExCom as well as an additional Interim and an Extraordinary meeting. Minutes from these meetings are concise, efficient and conclusive.

The Mid-Term Review:

A Mid-Term Review as carried out in late 2011 and formal accepted in early 2012. The main Findings were as follows:

- Project design was clear and logical although somewhat ambitious within the original time-frame
- A high degree of collaboration exists between the PCU and IMO. Working relationships are excellent and there is an attitude of mutual understanding and support that facilitates adaptive management and efficient management of budgets
- The staff complement of the PCU is extremely lean for the range of functions it is expected to perform and its overall work-load, especially for a global project of this scale and complexity
- The GPTF was found to be somewhat weak at that stage in the context of few, if any, of the discussions have provided the ‘strategic policy and management direction’ or ‘guidance’ envisaged by the Terms of Reference
- The number of PCs and LPCs that have ratified the BWM Convention at MTR was low. Only three of the 6 pilot countries and three of the 15 LPCs have ratified at that time. The MTR notes that there is no room for complacency as progress at national and regional levels is in some cases slower than expected and indicates a need for continuous support and encouragement.
- There was need for better information on activities at regional level, for example by more regular reports from RCOs focusing on progress towards ratification of the BWM Convention, the application of advice and training received at regional seminars and workshops and the implementation of regional strategies within individual States
- The materials used to raise awareness of BW issues and the GBP monographs relating to rapid status assessments, economic assessment and strategy development are clear and well - constructed and the quality of the products reviewed is excellent and well fitted to the purpose.
- Overall and despite some of these aforementioned constraints, the MTR concludes that the progress towards achievement of the objectives over the first half of the Project is commendable and predicts that most intended outcomes will be achieved by the end of the Project

The main, actionable Recommendations from this MTR along with the identifiable actions taken are listed as follows:

RECOMMENDATIONS	ACTIONS TAKEN
The GBP model in terms of its overall design, and particularly its structure worked well and can be confidently recommended for use by other complex environmental projects requiring major investment	This has been documented and presented at many appropriate venues and in publications and has been well-noted by UNDP and GEF
The current system of biennial presentations by LPCs to GPTF meetings is insufficient and should be supplemented by annual written reports to the PCU using a standard format	This was approached from two fronts: communications from the RCO, and communications from the PCU via email and during IMO's MEPC. This form of direct communication was preferred to obtain feedback from national focal points to have a better understanding than a formal report
Special attention now be given to meeting objectives focusing on regional cooperation	9 regional strategies have been adopted by regional conventions. Regional task forces in place in the five regions and RCOs have been coordinating the development of national strategies in partnering countries, with the aid from our LPCs
Every effort be made by IMO….to expedite guidance (on CME) for rapid incorporation into the GBP training programme	CME Training Packages updated
Several recommendations relating to the PCU work-load and the need to keep the work-programme and travel expectations within the realms of feasibility and the complement of staff should be kept proportional to the work expectations and travel demands	This has been addressed as much as is feasible by Imo itself. This is perhaps more important as an 'advisory' note for future projects
The preparation of a global policy and strategy for advancing BWM worldwide between now and 2020 is strongly recommended.	This is being developed by IMO, and no doubt the MEPC will be evolved (but some further support funding would be a worthwhile investment)
To assist non-LPCs in participating regions to develop their national BWM capabilities, it would be useful to develop and make available a condensed written version of the GBP approach to BWM capacity building	Monograph no. 18 on the development of BWM strategies was published to this effect. A direct result of this was the development of national strategies in 16 non-LPCs (see more details in previous email). Another approach was the delivery of the main training package in other regions with funds from IMO's ITCP and EBRD.
As and when the PCU professional staff complement is increased, that GIA secretarial functions should be made a specified part of the job description	The recruitment of a Project officer in 2013, included GIA responsibilities in the job description.

Monitoring and Evaluation Ratings:

M&E design at project start up. **Satisfactory**
M&E Plan Implementation. **Highly Satisfactory**
Overall quality of M&E: **Highly Satisfactory**

4.7 UNDP and Implementing Partner implementation / execution, coordination, and operational issues

This Project has been implemented by UNDP and Executed by IMO.

There was full agreement from the participating countries on the efficiency of the project management, management of the finances, organisation and delivery of flights and DSAs and the hiring of consultants. Several countries and stakeholders commented on the high quality and experience of the consultants provided by IMO and the PCU.

Stakeholders felt that having IMO involved and as the Executing Agency was one of the keys to successful delivery in this Project and to moving the Convention forward. The MEPC (Marine Environmental Protection Committee) of IMO was considered to be a crucial bargaining and discussion forum for this process. Having this IMO involvement and management was also critical to engaging with and bringing in support from the shipping industry.

UNDP had involvement primarily at the global level (UNDP/GEF PTA and Program Associate) as this was a global project; this included standard UNDP/GEF roles and responsibilities including both substantive/technical and financial oversight. There was little requirement therefore for input from the UNDP Country Offices other than to provide administrative support (flights, tickets, DSA) to IMO as needed following standard interagency practices. UNDP/GEF RTAs provided support as required to create linkages to various RCOs. Stakeholders noted that UNDP GEF always attended the GPTF meetings and has been very active within that forum as well as consistently supportive to IMO and to the project in general. Evidence shows that UNDP committed substantial time to supporting this project through ongoing dialogue and liaison with the PCU which helped to address concerns and challenges as they arose. UNDP also contributed considerable time and input to the management of financial matters.

The collaboration between IMO, UNDP and PCU has been variously described by stakeholders as efficient, sound, complementary, transparent, timely, comprehensive, constructive, productive, fruitful, etc. The GloBallast project has further been described as a model for inter-agency cooperation in the UN.

Rating of Implementing Agency: **Highly Satisfactory**
Rating of Executing Agency: **Highly Satisfactory**

5. PROJECT RESULTS

5.1 Overall results

Annex 1 reviews the entire Results Framework and provides ratings for delivery for each of the indicators under each Outcome as well as the overall Objective. The following section discusses the delivery from the outcomes in more detail and summarises the TE rating for each Outcome.

Progress toward the Overall Objective

There is no doubt that progress toward the overall objective, along with its indicator and targets, has been outstanding and the achievements are exceptional. In almost all cases the Project has met or even exceeded its targets. Some of this success may well be due to the several extensions and additional time granted to the Project for delivery but this merely reflects A. the rather overly optimistic timeframe originally allocated, B. the noteworthy adaptive nature of the Project, and C. the remarkable efforts in identifying co-funding and support for these substantial extensions allowing the Project to keep pace with the ratification process.

Cumulative Target Rating: Highly Satisfactory

Outcome 1: Learning, Evaluation and Adaptive Management Increased

This specific set of activities was primarily focused on overall Project Management at the global (IMO/PCU), regional (RCO) and National levels and the coordination processes necessary to make this effective. Various sections of the report above have addressed this in detail and identified the high quality of the management activities and administrative process. All of the targets were either met or exceeded with the exception of the Project being completed on time and the inappropriate nature of the timescale versus the adaptive and flexible approach of the project in addressing this has also been discussed above. In consideration of this, the Outcome has achieved its targets and more.

Cumulative Target Rating: Highly Satisfactory

Outcome 2: BWM Strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level

Although the project started in 2007, the first guidelines didn't get to some of the countries until as late as 2011 although other countries had their first workshops in 2008, which meant that some countries took a while to start developing their BWM Strategies and getting their legislation and institutional arrangements in order. Again, this reflects more on the over-optimistic timeframe adopted in the project design. However, all stakeholders felt that the training and workshops were excellent once they started and many local and regional specialists and scientists benefitted from these workshops. Some countries still feel that they need further training and capacity building in areas, for example, like compliance and monitoring and some countries also still need to identify the appropriate areas for ballasting and de-ballasting.

The BWM Strategies were clearly embraced by the countries as a very necessary requirement and one that was of considerable benefit to the country in the long-term. The Project, the PCU and various experts and specialists helped to provide guidance and training on this (manuals, monographs and training courses). The experts doing the training on such aspects as risk assessment, biological surveys, etc. noted that the high-quality publications and templates provided by IMO made their job of teaching and training much easier. The stakeholders felt that these BWM strategies would not have been developed without project support and guidance. However, the support of the various RCOs in the regions was also important and it was frequently commented that the various countries took their roles as Lead Partner Countries very seriously (some even supported PhDs in Ballast Water Management) and made a point of reaching out to different Ministries across a variety of sectors through their National Task Forces.

Rapid Assessment and Economic Impact Assessment training was provided to all LPCs. The countries feel that, because the training was so well structured and focused also on Training-the Trainers, the countries are now in a position to undertake the training in their regions by themselves. This well-

structured and 'modular' training also enables the focal points to follow the debate in IMO and specifically at MEPC meetings. IMO was also 'adaptive' in its approach to the needs of the countries. When the countries required assistance with drafting legal documents, IMO was able to provide such technical support and training even though it was not strictly a direct part of the project activities. Training on Port State Control was also seen as very necessary and was considered to be both well-delivered and valuable by the countries.

There was quite a variation in the quality and the structure of the strategies. Inevitably, some are rather more well-structured and logical than others. It would have helped if the Strategies had adhered more rigorously to a standard format. There is also a need to review and update some of the strategies as some were written long enough ago that they are no longer valid to the current Convention. With the Convention now coming into force, it would make sense for the countries to review them again to see if they are still 'fit-for-purpose'. This would benefit from an independent peer-review process to ensure compatibility and quality, and to ensure that they are in line with any more recent developments in Research and Development. This is important if the implementation of the Convention is to be considered as credible by the shipping industry.

One constraint that the project had to deal with was the fact that each country had different legal structures and institutional responsibilities and mandates. Trying to harmonise this within the requirements of the Convention has been very demanding yet it was, to a great extent, achieved. Several stakeholders felt that one of the most important deliveries from the Project was the legal reforms in each country to adopt the Convention and to meet the ratification requirements. A specific 'legal' aspect relating to sampling of ballast waters was raised by a number of interviewees. It was felt that sampling needed to focus on A. technology used on board and B. geographical requirements and associated exclusions. In areas that fall within the same basic ecosystem then a rapid assessment could be adopted that simply checks chlorophyll levels

In the context of the Economic Assessments of Ballast Water Management issues, all national studies highlighted the significant risks to the economies and environment of the countries. However, stakeholders felt that, although it was an excellent start, they need further research on this and in more detail, in order to drive home the importance of the Ballast Water Management. The PCU also felt that, in future projects using this strategy, the economic assessments should have both national specialists and an international expert working together. The latter could still be from the region but, where such advanced expertise is not available, an international specialist can be brought in to guide and to train. This would help in ensuring a more standardised quality of reporting and more comparable assessments. It would have been useful if the economic assessments could have been summarised in to short, sharp, concise Briefing documents of a 'brochure' nature for senior management and decision-makers both within and outside of Governments. (although a compilation of all the national economic assessments summarizing each national reports has just been published before the Project closure as the GloBallast Monograph 24).

Cumulative Target Rating: Highly Satisfactory

Outcome 3: Knowledge management tools and marine monitoring systems are effectively utilized to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, and enhance maritime sector communications.

The Project completed its target of conducting Port Baselines Surveys in each country. However, the objective set by the Project to provide taxonomic training to support the Port Baseline Surveys and any future ballast water analysis was considered by some to be rather too optimistic and a number of

countries and technical experts felt that the Port Baseline Surveys are still weak and need improvements and strengthening, particularly in view of the transboundary threats and the need for careful monitoring, but such improvements in knowledge and expertise will require considerable funding support. In the event, a number of representatives from each of the LPCs and regions have been trained on Port Baseline Assessment and on Identifying and Managing Risks from Organisms Carried in Ships' Ballast Water. This training provides guidance on risks and types of organisms but is not strictly taxonomic training.

Output 3.2 envisaged the establishment of a Global Marine Information Management System (GMEIS). This development of a GloBallast Marine Electronic Information System (GMEIS) was discussed several times as part of the Agenda for the Executive Committee and is well-documented in the ExCom October 2013 minutes. It was felt that the objective, as per the Project Document, was to enhance communications on ballast water management and to provide useful data and information to various stakeholders, including the shipping industry. The intention was to develop a global treatment technology database to support any efforts towards a decision support system. However, experience has shown that a global network of information is not easy either to develop or to maintain as a stand-alone item and that it had proved to be very difficult in the context of the Marine Electronic Highways project (which was only between 3 countries). It was also noted that there are existing databases and therefore the main utility of a new one would be to provide different information, corresponding to the real needs of the shipping industry.

Also, during the R&D Conference in Montreal 2016, a presentation was given on the establishment of a national ballast water information system linked with a Geographic Information System. The database consists of shipping records, ballast water discharge records, port environmental data, risky species taxonomic and distribution data and geographic data. This database is currently being operated by the Ministry of Oceans and Fisheries (MOF) of the Republic of Korea. Noting the fact that the Republic of Korea is providing funds to the Technical Cooperation activities of IMO through its MoU with IMO, the idea of a partnership between GloBallast and KIOST in this context was discussed and the Project agreed to investigate this further. Finding a way to combine the different Risk Assessment online systems available should also be explored.

In April 2016, an Expert Workshop on developing a Risk-based Decision Support System for cost-effective Compliance Monitoring and Enforcement of the Ballast Water Management Convention was held at IMO Headquarters in London. In relation to the intent within the Project Document to create a GMEIS, this expert workshop discussed the necessary skills and monitoring requirements in order to support and back-stop compliance, monitoring and enforcement (CME) of the Ballast Water Management Convention. It was noted that monitoring databases would need the support of information and communication systems, and inter-operability of such systems amongst public and private sector users. Also required is an effort to forge consensus on the functionality of the system: what it will be used for and the logical applications that would need to be developed. The workshop recommended the following pertinent requirements and developmental needs to address data access and availability:

- establish a global environmental management system for providing access to the environmental data required by the DSS for risk assessment;
- establish a template structure for local (national or regional) data management and for exchanging information with a central IMS;
- establish a mechanism for submission of ballast water report form or ballast water record book;

So, in the final analysis, the GPTF and ExCom noted that GloBallast had not committed to designing and develop a GMEIS as such, but rather articulated the meeting of global experts who are working on similar systems to come up with a skeleton global architecture for a potential GMEIS. GloBallast organized the said expert workshop (April 2016 at IMO Headquarters in London) where international experts defined the architecture of a Decision Support System (DSS) to support the implementation of the BWM Convention, specifically for ship targeting for port State control officers or risk assessment for exemptions. This resulted in a "Report on the Expert Workshop on developing a Risk-based Decision Support System for cost-effective Compliance Monitoring and Enforcement of the Ballast Water Management Convention". The outcome of this workshop, as captured in this report, was that the international experts should define the architecture of a Decision Support System (DSS) to support the implementation of the BWM Convention, specifically for ship targeting for Port State Control officers or risk assessment for exemptions. It was also noted that, when undertaking risk assessments, countries may need to considering exemptions within 'local' waters (e.g. cross-channel ferries, Adriatic, Baltic, etc.) but there has to be carefully monitoring and peer-review of this process to avoid any abuses.

An excellent series of monographs has been developed and distributed by the Project (24 in total) which have delivered real guidance and support to the countries and provide for easy replication of training and capacity building.

Awareness raising at the country level was reasonably straightforward once there was a clear message on the actual and potential damage from invasive species and what this would mean to a country and its economy and social structure. Awareness raising within the shipping industry could have been stronger and more effective and this was also noted in the context of IMOs own divisions where some stakeholders felt that improved awareness on GloBallast and, in future, GloFouling, would be beneficial. The BBC video production of 'Invaders from the Sea' was praised by all parties and is, indeed, an excellent awareness tool. Several stakeholders, including IMO and the PCU, felt that consideration should be given now to updating this with the progress of events and with the Convention about to come into force.

Cumulative Target Rating: Highly Satisfactory

Outcome 4: <u>Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions</u>

The project has pushed hard to ensure the development of appropriate technology for ballast water treatment that can make the Convention workable and acceptable. This has not been easy as different countries and areas have different requirements and standards, and these now need to be better harmonised if the Convention is to be credible. As noted above under the review of Outcome 2, it would be a valuable exercise now if a Panel of Experts were to review the various BWM Strategies that were originally created by the countries to see if A. they are still 'fit-for-purpose' as the Convention comes into force and B. How much the Strategies have been adopted/implemented by the countries, and to make recommendations on improvements where necessary.

One of the on-going problems that needs to be addressed in the future is better standardisation and harmonisation of testing by Inspectors at the Port level for shipping. One of the constraints to the 'credibility' of the overall Ballast Water Management approach is the necessary requirement for detailed and comprehensive port surveys and acceptable marine surveys. There needs to be more effective Port-Based Surveys and there needs to some mechanisms for assessing the efficacy and comprehensive nature of these surveys. Technical Guidelines G8-G11 have been adopted that support the implementation of the Convention and provide formal guidance on testing procedures

Initially, much of the burden for ballast water management was placed on the ships and ship owners. Gradually, it became clear that ports could also take on some of this responsibility, which then led to the development of port-based measures, which GIA then also advised on.

Stakeholders general agreed that the project had catalysed a positive relationship between the public and the private sector. Effective awareness raising meant that the shipping companies were aware of their role in the GloBallast issue and within the Convention and that the flag states would need to make requirements and demands from industry. Some of the more 'environmentally-friendly' countries helped to lead the way with this discussion and to promote the requirements of the Convention and thus assist in raising awareness and support in other countries.

Section 8 of the G9 in the Ballast Water Convention sets out the methodology to be followed for the approval of treatment systems and required IMO to establish a Technical Group to review the proposals submitted by Members and report to the Organization on its findings. Based on the report of the Group, the Marine Environment Protection Committee decides on the approval of a proposal submitted by a Member of the Organization. The technical Group is the GESAMP-Ballast Water Working Group. GESAMP is an advisory body consisting of specialized experts nominated by the Sponsoring Agencies (IMO, FAO, UNESCO-IOC, UNIDO, WMO, IAEA, UN, UNEP and UNDP). Its principal task is to provide scientific advice concerning the prevention, reduction and control of the degradation of the marine environment to the Sponsoring Agencies. The GESAMP – "Ballast Water Working Group on Active Substances", GESAMP – BWWG, or WG 34, was established in November 2005 to review any proposals submitted to IMO in preparation for the BWM Convention for approval of Ballast Water Management systems (further referred to as treatment systems) that make use of 'Active Substances'. WG 34 reports to IMO on whether such proposals present unreasonable risk to the environment, human health, property or resources in accordance with the G9. WG 34 does not evaluate the operation or design of the systems, or their effectiveness, only their potential for environmental and human health risks.

In January 2010, a first-ever forum for organizations involved in the testing of BWM treatment technologies was held in Sweden. The meeting was supported by the Global Industry Alliance (GIA) of the GEF-UNDP-IMO GloBallast Partnerships Programme. The meeting served as a first step towards increased dialogue and harmonization between test facility operators.

Following that first meeting, the test facilities convened for a second time in 2010 in Singapore where the group agreed to start formalizing their commitments to harmonize their approaches to testing under the G8/G9 Guidelines through a Memorandum of Understanding (MoU) between the facilities. The group met again in Istanbul, Turkey in 2011, Singapore in 2012 and in Busan, Republic of Korea in 2013. It was in Busan that the MoU establishing the GloBal TestNet was signed by representatives of 16 ballast water treatment system testing organizations as part of the fifth Global Ballast Water Management R&D Forum and Exhibition.

The 6th GloBal TestNet Forum was hosted by PML in Plymouth, UK in December 2014 with the purpose of establishing a secretariat and to contribute to the IMO debate on improving the G8 test guideline of BWMS. Now TestNet is applying for Observer Status at MEPC.

At the meeting, it was agreed that the secretariat would initially be based in Plymouth, UK and that the secretariat would be rotated sequentially among the three continents, usually on an annual basis. The website address for GloBal TestNet is http://www.globaltestnet.org/ and has a wealth of supportive information and guidelines.

GloBal TestNet is a global network of testing 'stations/institutions' that provide the necessary skill-set and equipment for testing technologies and methodologies for ballast water treatment, and then provide what is known as 'type approval' if the technology and equipment used is practicable and effective as a treatment process. It uses the appropriate Annexes from the Convention for guidance (e.g. D1 – defining how ballast water exchange should take place; D2 – defining the treatment standards). TestNet looks at the approval of two different types of technology. A. On-board Treatment and B. Hand-held Rapid Analysis. If Hand-held analysis of ship's ballast water shows a possible failure by the ship to have managed its ballast water, then they have to move toward a full scientific analysis of a ballast water sample.

Initial problems with TestNet included the confidentiality issue (Research/developers and potential manufacturers didn't want to expose their techniques and equipment to 'general' scrutiny for fear that other manufacturers would use them to their own advantage) and the need to have a standardised and compatible test protocol at all of the TestNet bodies around the world. Undoubtedly, the TestNet concept and its practice is essential to support the Convention and industry compliance and the reliability of TestNet and therefore of the type approval is hugely important in order to maintain credibility for both the TestNet centres and those who use selected treatment processes.

The GloBal TestNet is open to any organization involved in land-based and/or shipboard testing for the certification of BWMS under the BWM Convention and relevant guidelines or other test protocols. TestNet consists of member organizations, observers and advisors. Further, the Steering Committee consists of a president and two vice-presidents who will lead and coordinate the activities of the network. The Secretariat, which is currently based at Plymouth Marine Laboratory, performs secretarial and administrative services in support of the network.

The IMO-GloBallast Research and Development Forum is organised every two years and is considered by many of the stakeholders to be one of the most important international conferences on ballast water management. It has brought together leading scientific experts, the maritime industry, academia and technology development leaders in the field of ships' ballast water management in a dialogue and exchange of views and results and has provided a comprehensive overview of this rapidly expanding area of research, development and associated technology. So far the Project has supported 4 such R&D Forum meetings along with the GIA, with varying themes for each, including reviewing alternative management systems, providing an open debate and review of the existing and emerging systems and the way forward to push the technology envelope to meet the challenges of ballast water management. Other themes have included Compliance Monitoring and Enforcement; Meeting the demands of the BWM Convention: R&D in the context of catalysing innovative technologies; and BWM Convention: Moving Towards Implementation.

The Global Industry Alliance itself was set up by the Project as a pioneering public-private sector partnership. The current GIA members include shipping giants such as Keppel Offshore and Marine (KOM) and APL. This initiative was officially launched at IMO Headquarters in March 2009. The objective of GIA is to reduce the transfer of harmful invasive species and pathogens via ships' ballast water, and to maximize global environmental benefits from addressing this issue in a sustainable and cost-effective manner, in partnership with the GEF-UNDP-IMO GloBallast Project. A GIA Fund established through annual membership contribution by the GIA industry partners provides the necessary financial resources for the GIA to implement selected projects. Membership of the GIA Task Force required an initial contribution by a technology company of $50,000 in the first year. After that, the contribution was at the company's discretion. Currently, the secretarial function of GIA rests informally with IMO.

GIA is advised by a Global Industry Alliance Task Force (GIA-TF) that consists of the GIA partner companies. IMO acts as the fiduciary of the GIA Fund and GloBallast Partnerships Programme Coordination Unit acts as the Secretariat for GIA-TF and also as the executing body for the activities supported by GIA Fund. As was agreed in the first GIA Task Force Meeting, the GIA initially focussed it activities on the following areas:

- Development of an information clearing-house mechanism for one-stop access by shipping industry
- Development of capacity building tools targeted at maritime industry
- Co-organizing global conferences / symposia focussing on technology developments
- Establishing an IMO-GEF-UNDP- Industry Dialogue Forum
- Activities that accelerate technology transfer and technology diffusion within industry

This innovative public-private sector partnership model is the first of its kind, and aims at assisting in creating solutions for addressing the ballast water issues, including new technologies, along with training and capacity-building activities.

It has to be said that one of the main challenges for GBP has been the industry participation from the maritime/shipping sector. In this respect, the GIA has been able to act as a facilitator bringing industry feedback into the scientific discussion and the review and consideration of the Convention. The GIA can bring real knowledge of ship operations and equipment use and management to this forum. The GIA has also been able to provide funding for training and capacity building and to specific what is needed training-wise to bridge the gap between the users and the regulators. As noted above, the GIA was directly involved in the dialogue that led to the creation of TestNet. The GIA were very keen to see some mechanism for standardising the testing and adoption of treatment methods and equipment across the industry. This discussion was then carried forward and developed by IMO, the PCU and the GPTF to evolve TestNet into what it is today.

But it has not all been plain sailing within this specific Outcome or in the context of the partnerships and understanding brokered with the industry. Clearly those private sector bodies working in research and development and the commercial companies which build and install treatment systems are very content with the Convention and its coming into force. The shipping industry itself is less satisfied and has much concern about the process to date and where it may lead to after September when the Convention is in force. Within the shipping industry, the adoption of a Convention and the on-going ratification process BEFORE the technology and associated regulations had been developed, proven and confirmed was very much ‘aspirational’ and considered to be ‘putting the cart before the horse’ and this has created a certain amount of resentment and mistrust which needs to be resolved in the interests of good working relationships and to ensure the Convention is as effective as it needs to be. Many shipping companies seem to have struggled to understand which technology they should adopt and to get the equipment fitted in order to meet the regulatory requirements and this concern was raised on a number of occasions and is clearly going to remain a challenge for IMO and the enforcement and compliance with the Convention itself. The shipping industry is of the opinion that it has been working hard to cooperate and to assist with the development of appropriate mechanisms and regulations and yet now it is facing the very real threat of penalties once the Convention comes into force as it does not feel that the equipment available is always fit-for-purpose or that the type-approval or tank sampling processes are truly standardised. Consequently, the general consensus among the shipping industry stakeholders is that there should have been an interim project after the pilot project (and before pushing ahead the strategies and regulations) that would have fully completed these processes so as to ensure all parties were perfectly clear on what is required to

comply with the Convention without any fear or uncertainties regarding standardisation of regulatory methods.

However, it is important here to make a distinction between the on-going process of adopting, signing and ratifying a Convention and the parallel process that was and is the GBP Project. The implied fault in the former process is not the fault of the Project. On the contrary, the presence of the Project has been probably the single factor that has 'navigated' this process through uncharted waters, and this was also the opinion of many of the same industry stakeholders who were otherwise critical of the Convention process.

The Globallast Partnerships project created the necessary dialogue and discussion forums for the various parties to air their concerns and raise these issues, bringing them into the global forum. By creating these partnerships and the possibility for dialogue, the Project seems to have managed to keep things on a reasonable footing without too much friction or finger-pointing. Certainly, industry stakeholders were keen to commend the Project in identifying or creating the necessary information and guidance and getting it out to those people who needed it most. In short, most industry representatives that were consulted and interviewed were very appreciative of what the Project has been trying to do even if they are critical of the 'Convention' process itself.

In summary here, the private sector alliances (such as GIA) which GloBallast has established aim to deliver the understanding within the global community that even if environmental challenges such as invasive species may seem insurmountable at first, working together through partnerships and developing interactive collaboration between pertinent interest groups and stakeholders can assist in finding solutions to these problems and developing agreed, mutual responses so that commerce can continue alongside the need for sustainable development and environmental management.

The Project itself was not at fault for the aforementioned problems. This was the first time such a GEF-funded Project has supported the development and coming into force of such a massive global legal treaty and there are many valuable lessons that have arisen as result. Once again, the adaptive management and flexible collaborative nature of the Project has undoubtedly kept this process on course and helped to defused an otherwise ticking bomb (at least for the time being).

Cumulative Target Rating: Highly Satisfactory

5.2 Relevance

There is no doubt that this Project has been highly relevant to national, regional and global development priorities and threats to both environmental and socioeconomic sustainability.

One interesting consideration arising from discussions with some stakeholders was the difference between the BW Convention and other Conventions. The BW Convention brings few real direct benefits to the shipping industry, unlike most of the other MARPOL-related Conventions which may bring savings in energy and fuel use. This has often made it somewhat more difficult to build support within the shipping industry itself.

Some of the BWM Strategies were endorsed by the Regional Seas Programmes, but some stakeholders felt that more interaction with the Regional Seas Programmes and with the Large Marine Ecosystems and their 'Ecosystem-Based Management' approach was both relevant and necessary. Some even suggested that an Invasive Species Protocol would be appropriate under such RSP Conventions. In this respect, one aspect of the project was the focus on needing to integrate the ballast water issues into national invasive species control programmes.

The project is also highly relevant to a number of other donor-supported activities and has interacted with such initiatives. These include the Annual Consultative Meetings of the Large Marine Ecosystems groups, the ICES Marine Invasive Species Working Groups, various Regional Seas Programme meetings, the CBD Working Group on invasive species (bearing in mind that if a country is a party to the CBD then it is required to address invasive species as an issue). The GloBallast project was also instrumental in delivering the ballast water component of the Caspian Sea Environment Programme project (through funding support from that project) as well as for the SafeMed project and through support to the European Maritime Safety Agency, both though European Union financing. GloBallast is also providing longer term support to the Guinea Current and the Agulhas and Somali Current LMES and their associated SAP implementation projects and there are other examples of how GloBallast is working with regional entities around the world.

Relevance to the Industry

There has been generally very good interaction with industry in two main areas. Those industries developing the new treatment technologies are clearly very supportive and keen to have dialogue. The shipping and transport industry itself is less enthusiastic although they realise they need to comply and to work with the technology industry as well as IMO. Those industry partners did raise quite a number of concerns, not in relation to the project itself in the context of management, efficiency and delivery. In these areas, the Industry representatives were equally as supportive and full of praise as other stakeholders. Their concerns were more related to the Convention and its regulatory and compliance processes.

One of the concerns raised during the evaluation was that the methodology was inappropriately adopted as part of the Convention and that getting 'Type Approval' certification is very expensive. The comments relating to the inappropriate nature of the aspects of the Convention dealing with treatment and methodology relate A. to the 'aspirational' nature of the Convention in relation to treatment methods and equipment at the time it was adopted and B. specifically to the difference between the Convention requirements and those of the United States Coast Guard regarding the definition of the word 'viable'. It is important to consider that 50% of the world's shipping passes through US ports.

As discussed under the section on Project Results (Outcome 4), the main industry concerns were about having refined equipment for ballast water treatment that is 'fit-for-purpose' as the Convention comes into force. The industry has no issue with the need and importance of addressing the ballast water issue itself and the need to control invasive species. But the industry is still deeply concerned about the technology and standards and their reliability and implementation/enforcement, and particularly their confidence in the tested and 'adopted' treatment systems and whether they can meet the standards and requirements necessary to do the job within the constraints of the Convention. The Industry is also concerned about what requirements and standards may exist in different areas and how there may now be different levels of standard with more stringent requirement sin some ports rather than others.

'Type-approved' guidelines were originally weak and there were no 'independent guidelines used for testing methods and equipment. Merchant shipping worldwide is moving in and out of different waters with different temperature and salinity regimes. Any system needs to be robust and suitable for worldwide use yet the manufacturers are telling the industry that they cannot expect systems to work appropriately under all conditions. It was unfortunate that, when the Convention came into force, treatment processes and associated technology and equipment was purely aspirational and there was nothing available off-the-shelf at that stage. In many respects, a lot of the technology is still

being ‘field-tested’ even though it may have type approval for use on the vessels. Yet, with the coming into force of the Convention, the industry needs something reliable and global. Under these current conditions the industry feels that there needs to be a certain amount of discretion and an emphasis on close collaboration and cooperation would wish to avoid the creation of an environment that that might be seen to promote automatic penalisation, at least not in the initial stages and early years while the Convention is in force.

Ports need to know more precisely what is present in their waters before they can define ‘invasive’ or harmful species. The industry is concerned that this is not currently the case despite GloBallast support to Port Baseline surveys, many of which (by the countries own admission) have been valuable but far from comprehensive. The industry is concerned now about what will happen to a ship if it fails to meet the discharge standards. They want to see some sort of contingency in place whereby the ship can then discharge into a port ballast water management and holding facility (at a cost as charged by the port), but then this process needs to be properly regulated so that ports are not erring on the side of ‘making money’ out of the process.

The ‘Type-Approval’ has also been noted by some industry stakeholders to be a major concern to the shipping industry in the light of the different standards being adopted for discharges and the sampling techniques and analysis. The Industry had expected that the process would be globally standardised and harmonious before the Convention came into force and this ‘global standardisation is clearly not the present case. This means that ‘type-approval’ is then dependent on where the ship may visit and discharge. Industry stakeholders felt that the rules set by the US Coast Guard, for example are quite clearly different to the general rules of the Convention (see below for further discussion). Furthermore, industry feels that sampling at every port is unrealistic and spot surveys would be more appropriate (although this would not then necessarily address the preventative objective of the Convention). They are also concerned again about the standard and compatibility of surveying and analysis. Some industry stakeholders expressed concern about the capacity and experience of the national port staff who would be doing the sampling, from which part of the ship and at what depth in the ballast tank they would take the sample. The industry stakeholders are still concerned therefore as to whether the Ports that ships will visit will be truly able to take representative samples and whether such a concern could then relate to significant problems for an individual ship. In response to this concern, the Project notes that that feel this has now been solved by the R&D community as sampling ports are installed on every ship along with the treatment system and the Project maintains therefore that this is no longer an issue. However, the presence of sampling ports does not guarantee a standard approach to sampling and neither does the presence of sampling guidelines. It is not possible for the evaluator to ascertain whether indeed this has been resolved and this remains a matter for further dialogue between shipping industry and IMO.

The word ‘Viable’ has caused much of this concern. G8 guidelines in the Convention were updated in 2016 to define viable as ‘able to reproduce’. But the US is using the pre-2016 definition of viable as being ‘able to live’. So, an organism can have severe cellular disruption which makes it non-viable by modern definition but it is still alive and is therefore ‘viable’ using the alternative US definition. It is this latter definition that the US insists is its benchmark for assessing ballast water samples, and refuses to change despite the fact that the US has not even ratified the Convention as yet. This means that on-board equipment treatment such as electro-chlorination or UV treatment, maybe perfectly suitable for most ports and may even meet the requirements of US ports depending on the equipment and process used, but some type approved systems would, in fact, needs to be ‘ramped up’ to meet US demands thereby using significant amounts of additional energy with the obvious drawbacks associated with such.

So, in the context of the Convention being driven into adoption 'too early' in the opinion of the shipping industry and without the necessary technology, some members of the shipping industry feel that they could not trust what they saw as an 'aspirational' technology. The shipping industry are of the opinion then that the process was fast-tracked by stakeholders who through pressure from the R&D industry and with support from the UN and others who felt that they needed to see a Convention adopted even if the mechanisms and technology to support that Convention were not in place and were, at the time, a long way away from being perfected. From the shipping industry's point-of-view they very much felt that there was NOT sufficient multisector dialogue on these issues. On the other hand, a number of other stakeholders feel that there has been sufficient time for the industry to prepare itself between 20004 and 2017.

Many of these concerns were raised through submissions and presentations to the MEPC-IMO and there has been some subsequent success in altering and improving the G8 guidelines. Many concerns were also discussed in various BWM Partnership meetings such as the R&D and technical level meetings held in Montreal and Croatia, but these generally never found their way into any formal discussions at MEPC. But one important development from the project that did raise strong positive approval and support was that of the Global TestNet and generally the shipping industry stakeholders felt that a lot of very positive developments came out of GloBallast and the BWM project, but they wished that some of the very valuable discussions hosted by the project had found their way into MEPC and into the more formal processes.

In summation, the evaluator's discussions with the shipping industry representatives and stakeholders reached the conclusion that the Industry "does believe in this Convention and its aims and goals. All it wants to see is reliable equipment that is 'fit-for-purpose' globally and can meet the requirements of the Convention in a manner that allows ships to operate in a normal manner". What it does not want to see is a Convention coming into force that might then immediately opens up the doors for penalties, incriminations etc. under circumstances which the industry has no control and under conditions where it cannot feasible meet the demands required by the Convention (thereby *de facto* placing the industry in contravention of the very Convention which they wish to support). However, the project has pointed out such penalties might be addressed by member states only if the ship is non-compliant. In the context of the 4-stage inspection process, if the ship has all the paperwork in order (BWM Plan and relevant BWMS certificates, etc.), there will be no requirement to sample or analyze the ballast water. It seems that these two points-of-view are being held in the absence of a proper dialogue between the two opposing schools of thought and there are lessons here which could be captured and valuably practised under similar projects in relation to closer communications and dialogue.

Rated: Relevant

5.3 Effectiveness

The Convention itself was adopted in 2004. When the Project was originally designed, it was envisaged that the Convention might come into force sooner (as it was supposed to have been sufficiently ratified and in-force by 2009). However, the countries and RCOs recognised that the original 5-year Project lifetime was somewhat optimistic when dealing with a major Convention which needed to come into force and with all of the associated legislative reforms, institutional strengthening and collaboration and the policy awareness and support. This was further exacerbated by the fact that the whole ballast water issue and invasives was a relatively new area so it took people in the countries quite a while to understand and appreciate the problem. Furthermore, the technology was not available or proven. But all stakeholders were of the opinion that the original financing for the Project as agreed with both GEF and co-financers was sufficient to do the job. The 'no-cost' extension for a

further five years and the support from the private sector to support this extension were good examples of the Adaptive Management approach that this Project promoted and embraced.

It has been well-noted and discussed that several stakeholders felt that the Convention was adopted too early when there were still no mechanisms identified or in place for treatment or analysis and the technology was not refined. This was further cited as a reason why it has taken so long for ratification and entry-into-force (13 years). However, it is equally an opinion held by some stakeholders that it was the actual adoption of this international instrument that was the only way to trigger and drive R&D research on such topic which then developed a US$50 billion technology market. It was also generally agreed that, without the original GloBallast pilot project there would not have been a Convention and without this follow-up BWM Partnership project it would not have reached entry-into-force with signature from over 50% of the world's fleet tonnage. In the context of efficiency, it should be noted that some countries have a national policy that they will not ratify a Convention until it is in force, after which they will adopt the instrument of accession. Following this event happening in September 2017, it is likely that a further number of countries will then ratify the Convention. This, in itself, is an enormous achievement although it still remains to iron out some of these wrinkles and concerns if the Convention is to be compliable and effective. Also, the presence of the Partnership project has definitely catalysed the necessary engagement with industry on the subject of ballast water and ballast water treatment.

The Project was enormously successful in catalysing the involvement of the Research and Development community, particularly through the GloBallast Industry Alliance as has been discussed in some detail. There was initially some hesitancy from the shipping industry, then TestNet was evolved which fostered the support of industry and strengthened the Alliance.

In the context of outreach and awareness. The BWM Partnership project has produced some very useful and high-quality media products include 'Invaders from the sea', a 30-minute documentary produced through the BCC with dialogue provided by IMOs in-house Media and Communications section. However, in its original iteration, GloBallast lacked a Communications and Outreach Strategy primarily because such a strategy is almost certainly going to prove costly. In developing such a strategy, it is necessary to decide on who/what the audience is/are? What is the message that it is necessary to get across? What are the best means and products for doing this? How can branding be introduced to give 'ownership'? There is a need for a visual identity with good, memorable logos, an agreed type-face that is associated with the product along with set fonts and colours. One lesson from GloBallast in this context is for such a Project to have an allocated budget for Communications and Outreach with an associated strategy and road-map/work-plan. This needs to be flexible so that 'news' can be captured and transmitted in an appropriate and timely manner. This did not happen as effectively as it could have within IMO during the GloBallast projects. Both GloMEEP and GloFouling need such a Communications and Outreach Strategy and this is an important consideration for IMO.

The E-Learning process that was created by the GBL project has received a lot of commendation for its effectiveness. Although not as good as face-to-face teaching and transfer of knowledge, it is cost-effective as it trains many more people who then benefit more from the 'face-to-face' training at a later stage. Over 2,000 people have now been through the GloBallast E-learning process. This mechanism needs to be highlighted as a valuable 'experience' by IW:LEARN.

Rated: Highly Satisfactory

5.4 Efficiency

The actual management of the project has definitely been very efficient, with stakeholders frequently noting the excellent support given by the PCU and IMO not only with awareness issues and guidelines but with actual 'on-the-ground' practical support activities.

Nearly all of the stakeholders commented on the 'excellent' working relationship that had been established between IMO, UNDP and GEF through the Project. In particular, it was noted that the Executive Committee met every year and were not constrained by too much formality. Some felt that the GPTFs tended to be a bit more mechanistic and formal in its functioning and could have included a bit more valuable brain-storming and discussion about what was missing from the Project or what was weak. However, the 5th GPTF did demonstrate more of this approach with its 'break-out group' approach to reviewing project sustainability.

There is strong evidence that this has been a country-driven project but there is still a lot of resistance within industry that needs to be overcome, particularly in the context of the 'aspirational' nature of the various treatments at the time of the adoption of the Convention, a situation which has still not entirely been resolved as the Convention comes into force. Retro-fitting treatment systems that are still not entirely fit-for-purpose has causes a lot of concern within the industry yet they are also not happy with the possibility of ports having their own 'hook-up' systems (which would then be 'satisfactory' from the national compliance point-of-view) as the industry would then lose control over the treatment process and would have to pay ports for the treatment. However, there have been some economic studies on this option which demonstrate that there would be no significant impact on the market itself if the shipping industry were to pass on this cost. In this context it is worth noting that port-based systems are mainly being planned now as a contingency and could save industry from paying fines etc. This gap has taken a big market uncertainly out of the equation and has contributed significantly to build the confidence among the shipping industry. For example, If a UV lamp breaks or filter stops functioning, they will still not need to pay the penalties from non-compliance, but merely to pay for the contingency services which will cost significantly less and will help to ensure the end-target of not discharging untreated ballast and associated invasive organisms.

In the direct context of cost-effectiveness, it is fairly impossible to fault the GBP Project in its management of the project finances and in its efficiency at capturing co-financing. This 4-year project managed to extend itself beyond this so that the project ran for a grand total of 10 years of implementation in order to align with the Convention development and ratification process yet using the same already-lean funding from GEF topped up significantly by funding from the executing agency and industry as well as in-kind support from the countries and the regions. This is exemplary and there are, once again, many lessons that can be captured here through 'experience' notes.

Rated: Highly Satisfactory

5.5 Country ownership

It is clear that country ownership of the Project and its objectives is 'High'. Project endorsed at high levels within the lead countries and frequently linked into the National Invasive Species Policies of the LPCs. In the Mediterranean (for instance) REMPEC requested all Contracting Parties to the Barcelona Convention to appoint a GloBallast NFP as part of the regional network. One valuable step now would be to increase and encourage technical cooperation between countries at the regional level. Stakeholders consider it very important now to promote regional coordination and associated activities and especially important to maintain and continue to support and strengthen the role of the Regional Coordination Organisations.

Initially there was a steep learning curve for the LPCs but some of the original Pilot countries provided expertise and support to assist in awareness and basic training on GloBallast. The economic assessments that were required for each country were intended to provide evidence for the importance of the ballast water management process and the need to control and prevent invasive species and thus provide a convincing argument to gain political support for this process balanced against the obvious national interest in maintaining support for the shipping industry.

All stakeholders commented on the strength of ownership of the Project and its objectives and frequently referred to themselves collectively as being part of the 'GloBallast Family'. However, nearly all of them expressed concern about the fact that the Project was soon to close, just before the Convention comes into force, which they feel is very unfortunate timing. Many of them expressed the wish to see a small support project to assist in bringing the Convention into force and to assure maintenance of the capacity and interactive process that has evolved through the GloBallast Partnership project. It was noted that this process took 17 years from initial phase to this stage but has only cost GEF $12 million so far and that this really must be seen as good value for money to date. But having made that investment and having realised a 'success story' the stakeholders are urging GEF to continue the support if possible, albeit at an equally humble level.

Rated: Highly Satisfactory

5.6 Training and Capacity Building

It is clear that the Project has done an excellent job in training leaders and experts within the ballast water management field. In this context, the stakeholders maintain that the Port Baseline Survey and the Risk Assessment guidelines and monographs along with the practical, in-field training has been innovative and valuable, particularly the ballast water analysis training which involved actual physical sampling and analysis. But the Port Baseline work still falls short of that is needed as has been noted above. Further training and further funding support for in-field work and analysis is an important requirement. Each country was required to complete a Maritime Profile which highlighted what the national requirements were in terms of training and other assistance.

This successful capacity building and training has left a legacy where by the RCOs have real experts on BWM and the Lead Partner Countries have real leaders in this field. Ballast water issue are now a core focal area within the Technical Cooperation Programme and it seems certain that they will remain so. The GBP project has now produced 25 Monographs on various topics from **Guidance on Port Biological Baseline Surveys and Economic assessment for Ballast Water Management: A Guideline** to **Establishing Equivalency in the Performance Testing and Compliance Monitoring of Emerging Alternative Ballast Water Management Systems. A Technical Review**. A wealth of Monographs have been produced through the Globallast Partnerships Project including the very latest in the series (25) which is entitled **The GloBallast Story: Reflections from a Global Family - Partnerships to Catalyze Transformational innovations in Marine Biosafety**. This provides an excellent review of the project through the eyes of some of its primary stakeholders, as the project comes to a close. The monographs are accessible through the website.

IMO has used its partner academic organisation, the World Maritime University, to assist in the training in areas such as general background on ballast water management, legal aspects and requirements, and Port State Control. As well as Compliance and Enforcement, including in the context of the Convention on Biological Diversity. WMU also has a 4-week course on biosecurity. Institutions like IOI and WMU would have liked to have done more to 'institutionalise' the training through

modules to try and ensure continuity and sustainability. Also, as much as would be feasible, more mentoring of trainees would have been useful.

In terms of training it was felt by the training organisations that there is quite a diversity in the capacity of personnel to be trained from different areas of the world. Although training has been done at both the national and regional levels, it was noted that there was a need for more national training in order to concentrate on national needs and weak spots. One concern was that the government were not sending the appropriate people for training at the regional level or to IMO/WMU. One major plus with the training was that it brought together maritime, academic and scientific personnel which was both very useful and very successful in terms of interactions and learning.

It was also very useful to bring two countries or more together on the training so as to share experiences and cross-regional training proved to be very valuable whereby two RCOs came together (e.g. Caspian and Black Sea) or two countries within a region (Turkey and Morocco). In the latter case of Turkey and Morocco, Turkey was quite advanced in ballast water management and was therefore able to share experiences directly with Morocco, and Morocco was able to learn quickly and efficiently from the Turkish representatives and experts. It was felt that this was directly responsible for the subsequent early adoption of the Convention by Morocco.

Trainers and trainees felt that it was very important to be able to deliver the training in the native language. Also, a modular system with associated certification was recommended in future for such activities. The Trainers should go to the trainees in regions and/or countries rather than the other way around as this is more cost-effective and can deal in-country or in-region with more relevant sectors. There was generally very strong support for the Train-the-Trainers approach which has left a legacy of expertise in the regions.

Training and workshops were specifically provided as part of the development of the BWM Strategies and these were often tested in one region (e.g. Legislation and CME in the Mediterranean) and fine-tuned then for delivery in the next region. All country representatives spoke highly of these training packages and workshop. One concern that was expressed was that in certain regions that had not fully adopted a regional BWM strategy, the various training and advisory/guidance workshops often were repeated several times which was not a valuable use of resources to achieve and end objective. As a further example of Adaptive management, the project altered and re-schedule its original training programme to account for the evolving Convention requirements and to be more in harmony with the developing regulatory approaches and framework as well as the revised and updated Port State guidelines.

The GBP Project developed an E-Learning process which can be visited online at the GloBallast website. Stakeholders were very supportive of this online process. Although they felt that it was not a replacement for face-to-face teaching and transfer of knowledge, it is cost-effective as it trains many more people who then benefit more from the 'face-to-face' training at a later stage. The E-Learning portal provides access to the following modules:

Module 1: Introduction to BWM and the Convention

Module 2: Operational Aspects of Shipboard BWM

Module 3: Survey and Certification Aspects of BWM

Module 4: Compliance Monitoring and Enforcement

Over 2,000 people have now been through this GloBallast E-learning process. The course has been awarded the IMarEST Continuing Professional Development (CPD) recognition.

Annex 2 provides a list of all the training and capacity building workshops supported through the Globallast Partnerships Project.

5.7 Mainstreaming and Cross-Cutting Issues

Although many of the mainstreaming and cross-cutting issues do not apply directly to this Project (e.g. poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender issues the Project Document recognises that there is a tendency for many marginal members of coastal-based societies to live immediately adjacent to the seas and to depend on subsistence fishing and mariculture for their food and livelihoods. The invasive of alien marine species can therefore have a direct effect on their health and well-being. The GloBallast Partnerships Project aimed to have a positive impact on vulnerable coastal populations by working to reduce the risk of IAS transfer through shipping and by reducing the chances that biological invaders can arrive with their accompanying economic and health risks. The national governments, during their rapid risk assessments, and then NBWM Strategy development efforts, also considered the health and economic consequences of current and potential future marine bio-invasions.

5.8 Sustainability

The first 'pilot' phase laid a good foundation for a global partnership to support the Convention. One possible criticism identified by stakeholders was that important components were originally tied to and dependent on the GEF funding and the PCU which could potentially have constrained sustainability. The original project design overlooked the need for a long-term and sustainable global level management/coordination mechanism. The capacity development is also an on-going and long-term consideration which needs to be made sustainable. Many ships now coming into a foreign port request up-front information about the Port and the country's protocols and requirements for ballast water management. In those countries that have Ship's Registries, the sustainability issue is a particularly important one as the Convention comes into force.

There is no doubt that the project has effectively helped to create a multi-billion dollar marketplace already in relation to the technology and fitting of treatment systems. However, the main incentive should still remain as mitigation of the losses that could be inflicted on the marine environment along with associated economic and social damage. This could be orders of magnitude bigger than the actual costs of managing ballast water and this has been highlighted in various awareness products and needs to be emphasised continuously with hard facts and evidence.

One common and overarching concern expressed by all stakeholders (countries, RCOS, industry, TestNet, etc.) is the timing issue in relation to sustainability. The Project will close in June 2017 while the Convention itself comes into full force during September 2017, some 3 months later. Consequently, the countries are all now highly motivated at the point where the Project is about to finish but without a clearly documented guarantee of continuity or sustainability of effort or support. This is an unfortunate coincidence. While the coming-into-force of the Convention is both welcome and, to some extent, timely and aligned with the final phase of the Project, it does mean that the support structure and driving force built up over a 10-year period risks being lost just when it is most needed. The 'sustainability' aspect of the Project seemed to be at risk as of the preparation of this TE report. However, this is through no fault of the Project itself. On the contrary, the Project and its administration and execution has shown itself to be highly adaptive to changing situations and the fact that it was able to negotiate and adopt a 'no-cost' extension for a further 5 years in order to continue to support the countries in achieving ratification is remarkable in itself. A project of this nature, which has focused, to a great extent, on negotiating and enacting the terms and activities

related to such a global Convention (along with the associated and requisite legislative instruments, institutional arrangements and policy realignment) cannot foresee the amount of time or the various constraints that it will encounter on the road to ratification and enactment. All of the stakeholders noted that five years was undoubtable optimistic, especially in view of the need to try and adopt harmonised laws across all the countries which were acceptable to each country and did not contradict or interfere with other national laws and policies. All of the country stakeholders further felt that, without the momentum driven by the Project and the support provided, very few countries would have actually ratified by 2017.

Another problem identified by some countries has been the allocation of responsibilities at the institutional level. For example, it has been difficult in some countries to identify and agree on who will be responsible for the ballast water monitoring. This could fall under Environment, or Ports or Public Health, while often the technical and scientific expertise resides in the academic institutions. Not only has the mandate been unclear so far, but there is no existing budget to support the process and this will need to be rectified. Some countries are trying to establish a ballast water management fund under their government budgets to ensure some level of sustainability, but this would need to go through due political process and approval by parliaments/cabinets so it takes a lot of time and negotiation. One major legacy of the Project will be the regional strategies which are a main vector now for transfer of knowledge and for replication of best practices. This has been one of the main outcomes of the Project within the regions and has created a dynamic networking and sustainability at the regional level according to the various regional stakeholders.

So, the Port and Flag States are ready for September when the Convention comes into force, but the sampling and monitoring requirements still need to be fully resolved. Monitoring procedures need to be more carefully and uniformly standardised, not only between countries but also between ports in different States along national coastlines. At present, the 'science' of ballast water sampling and analysis cannot provide clear answers or conclusions. Primarily, in a lot of countries, either the Navy of Coastguard are responsible for the compliance and enforcement role but also, in a number of countries, they admit that they are concerned about taking on this function and will need assistance. The Convention clearly states that sampling and analysis of ballast water should not cause undue delay to ship activities. In principle, this means that a ship can discharge or take on ballast and leave port before any analysis can be effectively completed. The only remaining means of compliance and enforcement then left is to report a vessel in contravention of the Convention to its next port-of-call.

This Evaluation has included considerable discussion regarding the uneasiness and concerns expressed by the shipping industry relating to enforcement and compliance versus the adequacy (or otherwise) of equipment for treatment and sampling procedures. When requested to suggest a possible solution or mitigation to these concerns, industry stakeholders all suggested that they would wish to see consideration being given to the adoption of an interim moratorium period, once the Convention is in force, whereby sampling and ballast water monitoring is standardised and during which the results from sampling should not be used to support criminal action. The evaluator now understands from the PCU and IMO that this will, in fact, be the case (IMO Circulation 42 on the Sampling Trial Period) and this is an impressive compromise which demonstrates, yet again, good adaptive management which will undoubtedly build stronger trust and even better working relationships between IMO and the shipping industry.

Stakeholders and Agencies also felt that a Convention Implementation Conference would be appropriate around the time that the Convention comes into force or shortly thereafter. Industry (Technology and Shipping) could help support this as it will be in their interests to be as up-to-date on requirements as possible and will allow them to voice their concerns about the consequences of full-

scale implementation and compliance. This would also help to raise general awareness about the Convention as it comes into force.

In this context of awareness and its overall importance to the sustainability of the Project objectives, one problem that will always remain will be the need to convince decision-makers and policy-makers at the national level of the urgency and importance of the problem. This is an on-going effort as 'leaders' come and go within countries. And within industry also and they often do not immediately appreciate the imminent threat/crisis. The film 'Invaders from the Sea' was useful so far but it now needs to be updated. The R&D Industry could be expected to support this as well as shipping industry (as it is in their interests both morally/ethically and financially). It promotes the former's products and is good for the latter's Public Relations. This also touches on another issue that needs to be explored. The shipping industry are putting a lot of effort and real cash into meeting the requirements of the Convention with little or no obvious financial benefits to their board members or shareholders. The shipping industry deserves some recognition publicly for this important step. And some means of highlighting those ships or companies that are making extra efforts to comply would be a valuable public relations tool as well as 'buying' good-will and possibly even direct support. Concepts and ideas for this could be explored with the private sector. One possibility might be reaching an agreement with technology industry to donate a very small percentage of their income from fitting ships into a fund to support the technical aspects such as sampling techniques, port state control training, environmental sampling, TestNet, etc. Another possibility linked to this could then be that those ships fitted with those systems from the 'contributing' technology firms would be recognised through some sort of 'award (a Blue Badge or Blue Funnel Line or similar). The point here being that there are ample options for long-term sustainability with the sort of industrial involvement in this Convention.

As noted above, the various partners and stakeholders are concerned about the long-term sustainability of the role and functions that the PCU and IMO have fulfilled alongside the ratification process for the Convention (e.g. training, capacity building, support to workshops, the GPTF, R&D forums, etc). It is the Evaluator's understanding that IMO is pursuing solutions to this long-term support process as a high priority and a Draft Strategy for Sustainability was the subject of much discussion and brain-storming at the final 5th GPTF in Panama in March 2017. A Sustainability Strategy report has been produced by the Project before its closure and is attached as Annex 9. The following aspects of the Sustainability Strategy are already well advanced:

The Website: The GPTF participants expressed a strong interest in seeing the website (which is a useful source of data and information on BWM) "survive" the project, it is now done and it has now been fully archived thanks to the support of IW:LEARN and at no cost for the project: http://archive.iwlearn.net/globallast.imo.org/globallast.imo.org/index.html

The R&D Forum: Following discussions at the 5th GPTF, a strategic partner (IMarEST) has expressed a strong interest in taking over the organisation of the R&D Forum. IMO and the PCU are now in the process of drafting an MoU between IMO and IMarEST so that an R&D can be organized in 2018. EBRD has also stated that they could provide a free venue for this forum.

The GIA: Croatia are now planning to organize a second National GIA Conference in 2018. This is a concrete demonstration of how the LPCs are taking up ownership of the partnerships that were developed under the Project, thus providing sustainability to the GloBallast efforts beyond the Project lifetime. Meanwhile, the GloMEEP has confirmed they will launch their own GIA in a month's time and this but this another good example of how the GBP Project has catalysed other developments and how GloBallast tools have been replicated and sustained through another project.

GloFouling: The other vector that counts for more than 50% of the transfer of aquatic invasive species is that of biofouling. The GEF Council recently approved a new GloFouling project, and the IMO is now working with UNDP to develop this project and start it up as soon as possible after the after GloBallast ends in which case much of the knowledge, expertise and best lessons developed through GloBallast can be sustained through this new project.

Maintaining and strengthening the linkages and capacities of the RCOs will be also be an important consideration for further replication, outreach and training, and to support the countries once the Convention is in force. Both Ballast Water and Greenhouse Gas Emissions are key topics of concern currently within IMO and it is highly likely that Hull Fouling will join them within the year. This provides a strong sense of optimism that ballast water issues will continue to be supported by the ITCP. Although it may not be always be feasible for IMO to specifically recruit staff for ballast water management as a consequence of budget constraints, it has stated that it can and will, wherever feasible, allocate responsibilities to appropriate existing positions within the organisation. It also has good working agreements with parties such as IMarEST that have agreed to maintain the ballast water management website and may be able to provide support to the Research and Development Forum.

Overall then, there is a strong sense of optimism within IMO and amongst the partners in relation to the financial sustainability to support the aims of GloBallast and the Partnership. With the Convention about to come into force there is expected to be a huge interest and demand for supportive funding. It is also the Evaluator's opinion that any required follow-up activities to the project after June can only be seen as a most attractive and valuable investment by ANY donor. This is a success story that is not over yet and deserving of 'win-win' funding support.

Financial Sustainability, overall and as discussed above, should be secure with a little effort and 'salesmanship' on the part of IMO and other direct partners such as IMarEST and EBRD.

Rated: Likely

Socio-Economic Sustainability is an unusual context to consider for this project but needs then to be seen in the context of what the potential risks are to the socio-economic status of the countries themselves. The risk here from invasive species is enormous, but this is now being countered by the Convention in terms of Process and the Stress Reduction and Environmental improvements that will inevitably become clear once the Convention is in force and under compliance.

Rated: Likely

Institutional Sustainability should be secure at the global, regional and national levels with the caveat as discussed above that countries do need to specify which is the lead, mandated body and the strategies themselves do need to have clearer financial sustainability plans where possible

Rated: Likely

Environmental Sustainability is one of the key areas of focus here and, once again, with the Convention now coming into force, this should significantly reduce the impacts to the environment without creating any obvious new ones, noting in particular the near impossibility of reversing aquatic invasions once they have occurred.

Rated: Likely

Overall Rating for Likelihood of Sustainability: Likely

5.9 Catalytic Role

It was generally considered that the Project has created plenty of possibilities for upscaling and replication, especially in view of the large quantity of guidelines and monographs available to support such a process. It may be necessary now (with the Convention coming into force) to review relevance and update some of the available information but most of it (including the tools and teaching materials) is still very applicable.

Without the two GloBallast Projects, it is unlikely that there would have been a Convention and without the GloBallast Partnership project it would be a long way from coming into force. The Project was initially more focused on policy and training but it soon became obvious that unless technological solutions could be found for the removal of potential invasive species or for other methods of ballast water management then any Convention would be unimplementable. The project was therefore instrumental in setting up the Global Industry Alliance specifically to drive the technology development. Furthermore, these technological solutions needed to be tested and approved and, in order to achieve this, it would be necessary to have standardised approaches to testing and type approval so that a system that was tested and passed in one region or country wouldn't find itself rejected somewhere else. Consequently, the project and GIA promoted the development of GloBal TestNet, details of the formation of which is captured in Section 4.1 above on Adaptive Management.

Initially there was a large 'disconnect' between industry and government in terms of the policy dialogue. The initiatives set up by GIA and TestNet helped to bridge this gap by demonstrating to governments that industries were collaborating to try and find the necessary solutions for ballast water management. The Research and Development Forum also arose from the GIA as did the Ship Owner's Forum. So, many of the project activities evolved from the GIA such as the GloBal TestNet, port-based measures, advanced training courses for operations on-board, and the policy dialogue between industry and government at the national levels. It is worth noting that the BWM technology market has been valued at US$ 30-50 billion for the period 2014-2021, a direct catalytic output from this Project and the previous 'pilot' project.

The Project has produced a wealth of documentation in the form of guidance and manuals on "how to..." that are directly related to (and supportive of) the process for management of ballast waters. The Procedures for circulating or providing access to such documents has been a good one and the website provides an excellent portal for this. The documentation and other materials now exists as a transferable cache of valuable information and guidelines that can be delivered to other countries with a support system to back it up (if possible). As mentioned under Sustainability, Regional Coordination would need to be strengthened to provide the vehicle for such replication and up-scaling, and the long-term role and sustainability of the Regional Coordination Organizations is therefore an important component for such sustainable transfer of knowledge and replication and was a catalytic output from this Project. Countries within regions (and beyond) can now assist each other with training and strategy adoption, although this will still require a pool of resources both in the context of funding as well as in the requirement for coordination and support (and identification of needs and expertise through regional capacity building programmes).

One valuable catalytic lesson from the training was the inclusion of Australian trainees at their country's own expense. These trainees then took the expertise learned and developed their own training programme at the regional level plus Australia also put in its own money to support this regional training. Furthermore, in the Mediterranean region, the RCO (REMPEC) organised training and invited both GEF-eligible and non-eligible countries from the Barcelona Convention Contracting Parties. The allowed for much more interaction, networking and sharing of experiences, as well as the

widespread dissemination of information. Some regional training sessions also went beyond just targeting those countries in the region and invited other countries from outside. In June 2015, Turkey hosted a Train-the-Trainers' workshop and invited trainees from WAFAC and PERSGA. This was repeated in 2016 in Croatia when, once again, three regions attended the training (WAFAC. PERSGA and REMPEC). These approaches could be replicated successfully in other regions.

The management 'architecture' at the national level has helped to encourage interaction between ministries which otherwise rarely spoke to each other and this was a major catalytic 'plus' provided by the project which also helped countries to bring together the public ministerial sectors with academia. Even PhD students are now studying the problems associated with the ballast water issues in some countries. The Project was therefore seen by the countries to have been instrumental and catalytic in bringing together the pertinent national stakeholders such as Coast Guard, scientists, academia as well as government agencies.

One last example of the catalytic role performed by the BWM Partnership Project is the example it has provided for closely related follow-up projects such as Glo-MEEP (a GEF-UNDP-IMO project aimed at supporting the uptake and implementation of energy efficiency measures for shipping and reducing greenhouse gas emissions from shipping) and Glo-Fouling (a similar project to GloBallast currently under development but focusing on external fouling on ship's hulls as vectors for invasive species). Much of what these two initiatives are undertaking will be based on lessons and best practices from the Global Ballast Water Management process and its GEF projects

Rated: Highly Satisfactory

5.10 Impact

The Project has had an enormous impact across the maritime sectors and in the context of global mechanism for controlling invasive species and the associated environmental, social and economic damage that they cause. Ballast Water management is now taught on ship's and as part of a commercial mariner's training and is port of all major shipping companies' management systems (all based on publications and outputs from the GBP project). Banks and other financial institutions are embracing BWM as a priority and as a sound investment. This project has primarily focused on Process through the adoption, signature and ratification of the Convention and all the associated requirements and activities necessary for compliance and enforcement. In this context, the Indicators of Process have clearly been achieved and the impact of the Project on the Process has been enormous.

Nevertheless, with the BWM Strategies being adopted now around the world and by shipping countries, and with the forthcoming requirement for compliance, stress reduction to the oceans and marine ecosystems (as well as at the socioeconomic level) is inevitable and will be significant. It may take a while to provide quantifiable long-term measurements of environmental improvements but this is a process that aims to prevent and block acute crisis-level impacts from invasive species more than long-term environmental sustainability. The risk and economic assessments have shown that the introduction of an alien/invasive species are likely to cause socioeconomic havoc.

In somewhat clichéd terms, the invasive species only need to get 'lucky' once, the treatment systems and processes need to be 'lucky' every single time!! So, the environmental changes that are being targeted are actually more interested in logging 'No Change' as most measurable changes related to ballast water management and invasive species would be negative ones.

Although this project was designed and mostly implemented prior to the adoption of the Sustainable Development Goals, the Project has had and will continue to have a strong input particularly to the following SDGs

- Industry, Innovation and Infrastructure - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- Life Below Water - Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- Partnerships for the Goals - Strengthen the means of implementation and revitalize the global partnership for sustainable development

Rated: Highly Satisfactory

6. EVALUATION CONCLUSIONS, LESSONS LEARNED & RECOMMENDATIONS

6.1 Conclusions

The Conclusions, based on the findings discussed above are very simple and do not need to be unnecessarily protracted and sustained in their presentation. This Project has been frequently described within the international oceans management and governance community as a 'Game-Changer' for the shipping industry and for the maritime community as a whole. The GBP project was given an enormous task to do with very little time originally and very limited resources. The GloBallast family and their various institutional representation at the global, regional and national level have done an outstanding and exemplary job in delivering on this almost-impossible original expectation. Much of this success story revolves around the 'ownership' and family nature of this project and the skills and professionalism of those who have managed it. In realising the inappropriate nature of one or two of the original activities and targets, as well as the need for significant extension(s) to the project, definitive decisions were made based on an adaptive management approach and the endorsement of the appropriate administrative authorities were sought and granted. The Project then went to lengths to negotiate and successfully secure the necessary co-financing to support those decisions as required. The Implementation/Execution team of UNDP and IMO are to be congratulated on supporting this approach within what can all-too-frequently be a somewhat restrictive environment of the United Nations under their strict administrative rules and regulations and auditing processes, and without contravening any of those rules and regulations. The individuals staffing the PCU (both current and past serving members) also deserve enormous praise for their abilities to match professionalism and expertise with diplomacy and understanding in order to meet the needs and demands of the various stakeholders and consistently deliver on the targets and indicators as defined in the Results Framework.

6.2 Lessons Learned and Best Practices

- As with so many projects of this nature, there is a need to develop buy-in at the higher, Ministerial and decision-making/policy-making level from the very beginning. It is hard to 'sell' a project of this nature and its activities when 'pushing up' from the technical or management level. The use of Policy Briefing documents is one tool that can assist with this and this can be a valuable lesson for both GloMEEP and GloFouling.

- The Three-Tier Management Partnership developed though the Project (PCU to RCO to LPC and National Task Forces) has been an excellent model that has been praised by all stakeholders. This is now being used for GloMEEP and doubtless will be (should be) modified as necessary to fit GloFouling.

- There is always a 'political' risk for any project of this nature that is addressing long-term issues. Awareness raising can be very effective and successful but it is an on-going 'no exit' activity in light of political cycles in countries. One tool that GloBallast develop (somewhat incidentally in the context of addressing political sustainability but nonetheless valuable) was involving financial institutions such as EBRD. These financial institutions can provide significant leverage at the financial and thus political level when it comes to compliance and to requiring the embedment of global agreements into national policy and legislation. As with EBRD, most banks and financial institutions jealously guard and protect their reputations and the conditions placed on loans and other financial instruments can reflect this through the requirement to comply with such international treaties.

- As with many IW projects, the twinning Component has been seen to be very valuable. It is really useful and important to transfer knowledge and share lessons and experiences across projects and regions. The 'Twinning' Concept should be captured in a Project Document of this nature from the beginning.

- The Train-the-Trainers programme has also been very successful and many of the countries now appreciate the fact that they have skills and experience resident within their regions that they can use and which understand the specific issues of their countries. The Trainers should go to the trainees in regions and/or countries rather than the other way around as this is more cost-effective and can deal in-country or in-region with more relevant sectors. Furthermore, over 2,000 people have now been through the GloBallast E-learning process. This really needs an IW:LEARN Experience Note. Also, as much as would be feasible, more mentoring of trainees would have been useful in a Project for this nature and should be considered for future similar approaches.

- Continuity of involvement can pose a problem. There needs to be a clearly designated NFP as a person (and not just as an Institute) with a nominated alternative. Communications and invitations should be directed to that person. One of the problems experienced during the project by some countries/NFPs was that an invitation would go to the Ministry that was the National Focal Institution and then the senior person would select who should attend a course and it might often not be the correct person or the NFP. This is also not good for developing or maintaining networking within the regional stakeholders. In future, a project should specify the attendance of the NFP (where appropriate) and, if the country wants to send someone else then it must pay for that person.

- Some stakeholders noted that one valuable lesson learned in setting up the National Task Forces was to do this through a senior Ministry such as Foreign Affairs as this gave the task force more credibility and was more likely to encourage membership at the right level of seniority rather than junior staff being allocated. This approach has been noted as a valuable lesson in many IW Project now. Generally, it is important to have support and understanding at the high-level right from the beginning of such a project.

- Some countries were in favour of using more video conferencing in future, in view of the global and regional nature of the GloBallast family. This would be a valuable consideration for the GloFouling Project as and when it is launched.

- Some countries also felt that a great deal can be achieved even without the national legislation being in place (through a precautionary approach). Port States can adopt and use Guidelines as the Flag States are required to comply with the Convention in any case if they have agreed to accession. However, others felt that compliance (and its associated legislative foundation) is at the core of the Convention to ensure industry engagement in the GloBallast approach.

- The tendency for GEF to only support 5-year project cycles or less can be a major constraint to projects like this dealing with international conventions and associated legislation and institutional reforms. Such projects require more than 5 years to address these reforms and realignments at the national and regional levels in order to reflect global criteria and needs. In the case of the GloBallast programme (i.e. both projects) it was fortunate that the process from recognising the need for a Convention to the Convention coming into force (17 years) was not dependant on GEF funding alone but was able to leverage its own support from various sources or this could have created a serious situation whereby the Project(s) were operationally closed before the countries had significantly ratified let along the Convention being in force, which could have then been deemed a failure on the part of the GEF and its partners. Without this independent co-funding source(s) this Project would have certainly failed.

- Adoption and implementation of a regulation or treaty that relies on 'aspirational' technology is short-sighted and inappropriate if all stakeholders are to give support and if the said treaty or convention is to be 'reasonably' compliable and thus enforceable. If necessary, the treaty should not be able to come into force without agreement on the ability for compliance and enforcement including appropriate technology and training. This is a useful lesson that could be captured somehow for future design where a project is supporting the development of such a treaty or agreement.

- Awareness raising within the shipping industry could have been stronger and more effective and this was also noted in the context of IMO's own divisions where some stakeholders felt that improved awareness on GloBallast and, in future, GloFouling, would be beneficial and should be targeted.

- Having the PCU based in IMO HQ: PCU benefitted from the technical knowledge of MEPC and IMO Secretariat while IMO benefitted from the implementation support of the PCU for ITCP activities. Doubtless this lesson is not lost on IMO and UNDP and will be repeated as appropriate in future.

- It is regrettable after nearly two decades of evaluating GEF projects to note that transition time between the GEF projects/phases is still frequently unacceptably long. This concern has been raised time and time again in evaluations of GEF Project. The risks to ownership, awareness, continuity, lost capacity and to the overall investment seem obvious and significant, at least to all other partners and stakeholders. Despite these major risks there seems to be little appetite to address this concern. Although this is therefore a Lesson Learned from many GEF Projects and is frequently the subject of concern in Terminal Evaluations, is does not seem to be the focus of any attempts to resolve, or even for the Implementing Agencies to open a dialogue with the GEF on what is frequently and strongly an issue raised by the countries themselves.

6.3 Recommendations

The following Recommendations are targeted at either the Executing Agency, the Implementing Agency, the countries or a combination of these entities

No.	4. RECOMMENDATION	TARGET GROUP
1	The ITCP and the Technical Cooperation Division of IMO now represents the primary vehicle for continued technical assistance in relation to ballast water issues. What is now needed is a more modular and sequential plan and road-map for this support process and less 'one-off' *ad hoc* activities. To achieve this, the Marine Environment Division and the Technical Cooperation Division (TCD) need to collaborate closely so that when a country that has no experience or expertise in developing a BWM strategy seeks help, they can react jointly with a standard work-plan. The RCOs can also be very instrumental in this process by alerting IMO to the regional needs rather than just focusing on national requirements.	IMO
2	IMO needs to adopt a work-plan to transfer the lessons learned through the LPCs and PCs to other countries and thereby generally keep the momentum going for ratification of the Convention, or accession once the Convention has come into force. Then there needs to be a monitoring plan to ensure that this workplan is delivered	IMO
3	Stakeholders felt strongly that an interim moratorium period should be established (once the Convention is in force) whereby the shipping industry is not financially or legally penalised if the Convention requirements are not precisely met (or are 'construed' to be not precisely met) and sampling results are not used to support criminal actions for a period (e.g. 18-24 months). This could be seen as a 'shake-down' period to iron out any glitches in sampling and treatment processes. This would also serve to boost industry confidence and trust in this Convention which would help to strengthen support and buy-in for GloFouling (and probably GloMEEP also). Presumably this would need to go through the MEPC	IMO
4	It was proposed by some stakeholders that the World Health Organisation needs to be more of a partner in Ballast Water Management as a number of pathogens are already being identified in ballast water.	IMO
5	The BBC video production of 'Invaders from the Sea' was praised by all parties and is, indeed, an excellent awareness tool. Consideration should be given now to updating this with the progress of events and with the Convention about to come into force. Careful consideration should be given both to the 'branding' and to the potential audience. It may be worth considering a short 5-minute version for policy-makers?	IMO
6	The Risk Assessments and Economic Assessments were geared toward providing a 'counter' defence to the cost of ballast water	IMO

	management implementation in the context of the value of renewable living marine resources that may be lost as well as the threats to industry. However, the PCU and IMO noted that the results of these assessments should ideally have been refined into short but concise Briefing documents targeted at policy-level decision-makers (e.g. Ministers or Directors-General). This can and should still be done through the creation of short, concise Briefing Documents aimed at policy-makers (both for GloBallast and GloFouling as well as GloMEEP if this is not already being done).	
7	In a similar context, all national studies highlighted the significant risks to the economies and environment of the countries. However, stakeholders felt that, although it was an excellent start, they need A. further research on this and in more detail, in order to drive home the importance of the Ballast Water Management and B. to get this information to where it is most needed at the national policy and decision-making level through short, sharp, concise Briefing documents of a 'brochure' nature for senior management and decision-makers both within and outside of Governments.	IMO + COUNTRIES
8	There is also a need to review and update some of the strategies as some were written long enough ago that they are no longer valid to the current Convention. With the Convention now coming into force, it would make sense for the countries to review them again to see if they are still 'fit-for-purpose'. This would benefit from an independent peer-review process to ensure compatibility and quality, and to ensure that they are in line with any more recent developments in Research and Development. This is important if the implementation of the Convention is to be considered as credible by the shipping industry. As noted above under the review of Outcome 2, It would be a valuable exercise now if a Panel of Experts were to review the various BWM Strategies that were originally created by the countries to see if A. they are still 'fit-for-purpose' as the Convention comes into force and B. How much the Strategies have been adopted/implemented by the countries, and to make recommendations on improvements where necessary.	IMO + COUNTRIES
9	It may be worth considering using the existing RCOs and Task Forces from GloBallast for GloFouling so as to take advantage of these ready-made bodies as well as to ensure their sustainability. IMO is already planning to replicate the Glo-X structure from Global to Regional to National level. A strong focus should go on ensuring good multi-sectoral and inter-ministerial representation on the national task forces. Also, the Regional Seas Programmes need to be more closely involved with and through the RCOs which has not happened during GloBallast Partnerships Project despite attempts by the PCU and IMO to organise closer involvement of UNEP and the RSPs. It was noted, however, that the Project Design could have been improved through the inclusion of pre-negotiated and more formal and detailed Terms of Reference for the RCOs at the time of submission/endorsement.	IMO + COUNTRIES

10	There is an apparent need to ensure better standardisation of monitoring (at port level as a baseline and at ship level as ballast water monitoring itself) as well as a better understanding of the application of the standards for compliance at the port level. The industry needs to have more confidence in the ship monitoring process and that it is both reliable and comparable across all ports and vessels. In this context also, the inspectors and the countries do require more technical training related to compliance, monitoring and enforcement as the ballast water management process evolves alongside the Convention itself. The Port Baseline work still falls short of what is needed as has been noted by the stakeholders. Further training and further funding support for in-field work and analysis is an important requirement. Each country was required to complete a Maritime Profile which highlighted what the national requirements were in terms of training and other assistance and this should be updated.	IMO + COUNTRIES
11	The shipping industry deserves some recognition publicly for the important steps it has taken with IMO to bring this Convention into force. Some means of highlighting those ships or companies that are making extra efforts to comply would be a valuable public relations tool and further build confidence and buy-in.	IMO AND SHIPPING INDUSTRY
12	This has been a 'model project for demonstrating successful interaction and partnering with industry. UNDP should consider opening a dialogue with industry and GEF over the potential for a broader scale and more comprehensive industry interaction project at the level of International Waters. This would inevitably include such partners as IMO and other GloBallast 'family' members but would extend beyond just the shipping industry and reach out to the energy and mining industry as well as fishing and tourism within the umbrella concept of interactive and collaborative ocean governance. The objective of such a project could be to demonstrate effective engagement of industry sectors into the overall aims and targets of the International Waters portfolio, possibly focused initially on LME and ecosystem-based collaborative management and governance.	UNDP
13	The Ballast Water Management Infrastructure Investment Guidance prepared on behalf of EBRD should be circulated to all LME projects for their consideration and appropriate action within their regions. This is a valuable set of guidelines that can provide strong support within the Blue Economy arena which is growing fast and which recognises the need for private sector investment in marine ecosystem and marine living resources sustainability.	UNDP
14	UNDP should include a standard format for Quarterly Progress Reports as part of the Project Document Annexes to ensure that format and quality is consistent and to reduce the work-load for Project Managers	UNDP
15	IMO and UNDP need to talk with IW:LEARN about creating appropriate Experience Notes from this very successful Project. There are many lessons that can be captured and only some of this have really surfaced during this evaluation.	UNDP + IMO

16	There may now be a case for seeking funding from GEF and/or other potential donors to support elements of GloBallast and future Convention implementation. There are still a number of outstanding issues identified within this evaluation that donors may wish to consider supporting in order to build on and consolidate this impressive investment project. For example, there is now a wealth of scientific literature and discussion regarding the growing concerns about the impacts of climate change on the potential for invasive species migration and successful colonisation[3] and a number of potential donors might be interested in supporting further work in this area which will undoubtedly impact on the ability of invasive species to colonise from ballast water (and hull-fouling).	UNDP + IMO

ANNEXES

1. SMART Review of Results Framework
2. List of Training and Capacity Building Workshops supported through the Globallast Partnerships Project
3. Terms of Reference for Terminal Evaluation
4. Evaluation Consultant Agreement Form
5. Itinerary and Missions
6. List of persons interviewed
7. List of documents reviewed
8. Evaluation Question Matrix (As provided in Inception Report)
9. Sustainability Strategy
10. Management Responses

[3] For an introduction see http://www.mccip.org.uk/media/1391/non-natives-report-from-cambridge-university.pdf

ANNEX 1: **Review of the Project Results Framework Indicators and Sources of Verification and Delivery**

N.B. This also includes a review of whether the original indicators and Targets were **'SMART"** (Specific, Measurable, Achievable, Realistic and Timely).

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
To assist vulnerable developing countries to implement sustainable, risk-based mechanisms for the management and control of ships' ballast water and sediments in order to minimize the adverse impacts of aquatic invasive species transferred by ships	By the end of the project, all partnering countries can demonstrate significant improvement in legal, policy and institutional structures, with corresponding reduced risk of ballast water borne marine bio-invasions	All (13) lead partnering countries (LPCs) have assigned a Lead Agency, formed a National Task Force and developed National Ballast Water Management Strategy (NBWMS).	Y	Y	Y	Y	Y	14 national BWM strategies completed. 1 in draft stages 12 BWM strategies Adopted by countries 1 in final process of Adoption	HS
		Each LPC has revised its legal instruments, instituted a risk-based compliance monitoring and enforcement (CME) system, and established a sustainable financing structure for their national ballast water	Y	Y	Y	Y	Y	Most Targets met. 15 national legal instruments completed CME training provided and CME systems implemented 14 economic assessments completed National strategies include a budget for financing their national programmes. each country has been implementing their own activities at the national level All LPCs have reviewed their existing policy, legal and institutional framework applicable to BWM issues and CME system and have established institutional and financial mechanisms to support national activities All LPCs also have a legal text on BWM or have started drafting a legal text.	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
		management program.							
		All lead participating countries are proceeding towards ratification of the IMO ballast water management convention, with at least 10 LPCS ratified and implementing the Convention.	Y	Y	Y	Y	Y	Targets met 8 LPCs ratified. Two more finalising ratification process and implementing Convention requirements	HS
		At least 3 neighboring partnering countries of each LPCs developed draft NBWMS	Y	Y	Y	Y	Y	Target exceeded. 16 PCs have national BWM strategies developed or under development	HS
		The Regional Seas & LME conventions in each partner region include approved provisions supporting improved BWM,	Y	Y	Y	Y	Y	Target met/exceeded 12 Regional Strategies in place 9 adopted by the Regional Conventions	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
		the BWM convention and BWM regional strategies.							
1. Learning, evaluation and adaptive management increased	The project team at global, regional and local levels is effectively coordinating the project, with objectives met, and outputs completed in time and within budget A successful partnership in place providing effective management and direction for GBP at global, regional and country levels Monitoring and evaluation support provides timely assistance to keep project on track and recommend strategies to ease bottlenecks	Satisfactory / Highly satisfactory ratings on key activities and outcomes during terminal evaluation	Y	Y	Y	Y	Y	Achieved!	HS
		PCU, RCOs and LCPs up and running by end of 2nd Q, yr 1. GPTF, RTF and LPTF meetings held on schedule.	Y	Y	Y	Y	Y	All Targets met Various reports and minutes available	HS
		Financial and project management carried out according to GEF & UNDP guidelines and IMO procurement policies.	Y	Y	Y	Y	Y	Confirmed and Targets Met All budget reports and revisions accessible	HS
		Project completed on time and within budget. Low staff	N	N	N	Y	Y	Project extended due to unachievable original expectations/targets related to Convention ratification. Formal decision to extend recorded in Minutes of Extraordinary Executive Committee Meeting for the GloBallast Partnerships Project, 29 January 2010 Malmö, Sweden. Further extensions to 2017 also recorded in appropriate ExCom Minutes	S

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
		turnover, high country buy-in.						Project completed within budget - high level of co-financing support to cover extension period Staff Turnover acceptable High country buy-in confirmed	
		MTE and TE carried out on time and within budget.	Y	Y	Y	Y	Y	MTE carried out at Mid-Term once Project extension had been approved – Report finalised TE is on schedule as required by UNDP and GEF	HS
2. BWM Strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level	At project conclusion, each LPC is implementing an effective program of ballast water management in line with the IMO Convention and any Regional Strategies. During the project, each LPC is sharing the lessons learned with other countries in the region By end of year 2, key decision makers, industry representatives and maritime training institutes	By the end of the project each LPC will have a National Task Force and approved NBWMS in place	Y	Y	Y	Y	Y	Confirmed - see above under overall Objective	HS
		All LPCs will have revised legal structures, improved CME systems and a cadre of trained experts.	Y	Y	Y	Y	Y	Confirmed. Revisions to Legal structures within BWM Strategies. CME training given. And experts trained	HS
		Regional Task Forces and Regional Action Plans in place in each cooperating region by the end of the Project.	Y	Y	Y	Y	Y	RTFs in place for 5 regions. Strategy/Action Plans developed for 12 Convention regions	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
	in every priority region and LPC have been provided introductory training on all aspects of BWM Early in project year 2 all LPCs have identified the key issues of BWM and marine invasive species and developed their LPC action plans under GBP. LPCs have coordinated their planned activities with the other participating countries in the region The economic impacts of marine invasive species is better understood, and economic	Regional Coordinating Organizations are facilitating the participation of other partnering countries in capacity building activities hosted by LPCs	Y	N	Y	Y	N	RCOs have been coordinating the development of national strategies in partnering countries, with the aid from our LPCs. Regional task force meetings have also included non-LPCs from the region.	HS
		By end of year 2, more than 250 stakeholders from pertinent ministries, industries and training institutes have participated in BWM modular course.	Y	Y	Y	Y	Y	Confirmed. List of participants available	HS
		By end of year 3, selected maritime institutes in each region / LPC are training maritime experts in all aspects of ship-based BWM.	Y	Y	Y	Y	Y	Capacity building provided to 13 maritime institutes for this purpose	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
	impact as well as management costs, are factored into strategic planning for ballast water management All lead countries and priority regions have approved and are implementing strategic plans to reduce the risk of bio-invasions from ship ballast water By the end of yr 4, all LPCs have instituted legal and regulatory changes that improve BW management and adopt or harmonize with the IMO Ballast Water Management Convention Expertise on key facets of ballast	By end of year 2, the BWM modular package is also made available in an e-learning format.	Y	Y	Y	Y	Y	e-learning format is available with modular packages	HS
		13 Rapid Assessment Reports completed by the end of 1st Q, year 2, covering all key aspects for BWM and AIS. Verified by report submission.	Y	Y	Y	Y	Y	Confirmed with report submissions. 15 National assessments available after using 'Guidelines for National Ballast Water Status Assessment' GloBallast Monograph Series No.17 (in 4 languages)	HS
		LPC specific and aggregated economic impact reports completed by 3rd Q, year 4	Y	Y	Y	Y	Y	National economic Assessments completed (14 in total) using 'Economic Assessment for Ballast Water Management: A Guideline' GloBallast Monograph Series No.19 (in 4 languages)	HS
		All 13 LPCs develop approved BWMSs by the end of year 4. All 6 priority regions (incl. SPREP) have a regional action plan (RAP) for BWM in place by end of year 4	Y	Y	Y	Y	Y	15 National strategies developed using 'Guidelines for Development of a National Ballast Water Management Strategy' Globallast Monograph Series No. 18 (in 4 languages)	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
	water techniques and coastal biodiversity monitoring is enhanced across the participating countries and regions. By the end of year 4, each LPC has developed / enhanced its CME system. By end of year 4, 35% of merchant shipping fleet calling on LPC ports indicates BWM plans being implemented	All LPCs adopt new legislation / regulations to strengthen ballast water management by 1st Q year 4	N	Y	Y	Y	Y	15 new national legal instruments drafted alongside BWM Strategies. The Majority of the are adopted by LPCs or have been submitted to the government executive for consideration/adoption. Some still in draft form.	S
		By the beginning of project year. 2, there exists global, regional and LPC rosters of taxonomists available to assist on coastal and port species surveys.	Y	Y	Y	Y	Y	A number of representatives from each of the LPCs and regions have been trained on Port Baseline Assessment and on Identifying and Managing Risks from Organisms Carried in Ships' Ballast Water. This training provides guidance on risks and types of organisms. IMO also has a roster of consultants	HS
		By the end of year 3, 6 port species survey workshops have been held.	N	Y	Y	Y	Y	Monograph 22 on Port Biological Baseline Surveys published Training on PBBS delivered for all 15 LPCs.	HS
		By end of year 4, selected maritime institutes in each region / LPC are training maritime experts in key aspects of ship-based BWM.	Y	Y	Y	Y	Y	List of trained participants available. National training institutes capacitated	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
		By 2nd Q, year 2, all Shipping companies calling on LPC ports have received model BWM plans. Follow on questionnaire in mid-year 3 identifies shipping companies implementing the plans.	Y	Y	Y	Y	Y	All LPCs have indicated in their National Strategies and/or National legislation the need for ships calling in their ports to have a BWM Plan in place. Most of them require use of the model Plan proposed in the BWM Convention.	S
3. Knowledge management tools and marine monitoring systems are effectively utilized to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, and enhance maritime	Sufficient information is available by the end of the project for LPCs to implement risk-based ballast water management systems. All LMEs and regional Seas programs globally have raised ballast water management as an	GMEIS system is operational, web sites are in place in each of the 13 LPCs. Newsletters are published. The GMEIS web portal includes information showing ballast water protocols and strategies in each LME and Regional Sea globally.	Y	Y	Y	Y	Y	GMEIS no longer used as an Indicator/Target as such following the decision made by Executive Committee as not considered appropriate with existing websites and information systems. PUC is exploring other mechanisms that are more appropriate and cost-effective. See below. Other portals, particularly the GloBallast website and the GIA and TestNet websites are filling the required role. Appropriate websites are being hosted in the regions and countries. The GloBallast website now provides general info about the BWM protocols in the region, with a link to the LME. There is also a link to the Regional Seas Conventions (http://archive.iwlearn.net/globallast.imo.org/globallast.imo.org/regional-seas-conventions/index.htm) Newsletters have been published	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
sector communications.	important coastal zone concern, with their members taking steps to address the issue. Momentum on GBM is sustained in the GB pilot regions. By end of yr 3, LPCs have detailed knowledge of marine invasive species risks, and presence Architecture is agreed to and data entered for launch and updating of Global Marine Electronic Information System during yr s 3 - 5. Interested stakeholders and the general public in all GBP regions and participating	Baseline data from at least 1 port in each of the 13 LPCs developed, plus expectation of other participating country surveys, enabling ID of existing invasive species prevalence	Y	Y	Y	Y	Y	Port Biological Baseline Surveys have been conducted in all of the LPCs based on the published Monograph 22 on Port Biological Baseline Surveys	S
		GMEIS launched during year 3. By project year 5, the backbone for a Globallast marine electronic information system for BWM has been designed.	Y	Y	Y	Y	Y	The backbone has been laid down but not as a GMEIS specifically as ExCom agreed this would not be appropriate or functional. Instead a DSS was proposed through an appropriate Expert Workshop on developing a Risk-based Decision Support System for cost-effective Compliance Monitoring and Enforcement of the Ballast Water Management Convention. These decisions were made in 2016 but as yet have not been fully implemented.	S
		Web portal as the front-end of this system is operating, and a country profile database is in place	Y	Y	Y	Y	Y	There is a web portal inasmuch as the GloBallast website provides the main portal and beyond that there is a country profile database in place	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
	countries stay informed of the issues and project status	Timely publication of newsletters, printing and dissemination of brochures, and widespread dissemination of the BBC documentary	Y	Y	Y	Y	N	GloBallast has done an exceptional job in awareness raising through various forms of publication, presentations at conferences, media outputs (especially 'Invaders from the Sea'). These have helped to build strong country ownership and to bring the function of GloBallast and the Convention to the attention of many different sectors. There now 24 monographs available and a recently-produced new video on sampling and analysis.	HS
4. Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions	Cost effective technology solutions and testing standards are developed, tested and promoted through a successful partnership with industry Shipping industry enters into close partnership with other key stakeholders under GBP, through the GIA, helping to overcome major barriers in developing and implementing	A GloBallast Industry Alliance is launched, testing facility standards are developed, sediment facility options have been piloted, at least 2 R&D symposiums held, and the BWM Innovation Fund gets launched	Y	Y	Y	Y	N	GIA has been launched (no timeline given in LogFrame) and is very active. Testing facility standards have been developed and TestNet has been created through the project (good catalytic adaptive management) The options for sediment facilities and their piloting was removed by formal agreement of the GPTF and the ExCom (September 2012) and replaced instead with the development of guidelines on best practice in sediment management. This was published as Monograph 23 - Guidance on Best Management Practices for Sediment Reception Facilities under the Ballast Water Management Convention which would be applicable and useful to all countries (whereas a pilot would only be applicable where tested) 6 R&D Forums have been held so far Innovation Fund is now the GIA Fund and is supported by GIA. The starting capital of the Fund was US$200,000, (contributed by the GIA founding partners) with an ongoing commitment of another US$750,000 from the founding partners during the next four years. Singapore will continue to sponsor Technology Conferences	HS
		At least 5 major maritime industry players agree to join the GIA. The GITF and industry dialogue meetings held concurrent to	Y	Y	Y	Y	Y	5 major maritime industry players have signed an MoU with IMO and/or regularly attend GIA (APLCO PTE; BP Shipping; Daewoo Shipbuilding and Marine Engineering; Vela International; Keppel Offshore and Marine) 8 GIA Task Force meetings during the course of the Project	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
	technology solutions Port States can mutually accept technologies approved based on internationally agreed testing standards and test facilities Based on pilot site results, all port authorities within priority regions receive recommendations on construction of sediment facilities Innovative solutions for ships to meet the BWMC requirements are developed and publicized.	GPTF meetings throughout 5 year project.							
		By end of year 3, test facility standards and procedures for endorsement of test facilities are developed into IMO BWMC guidelines	Y	Y	Y	Y	Y	The GloBal TestNet has been established and, in 2010 the members agreed to start formalizing their commitments to harmonize their approaches to testing under the G8/G9 Guidelines through a Memorandum of Understanding (MoU) between the facilities 8 meetings to date GloBal Testnet website is functional (http://www.globaltestnet.org) with a wealth of supportive information and guidelines Monograph 20 on 'Establishing equivalency in the performance testing and compliance monitoring of emerging alternative Ballast Water Management Systems - A Technical Review Technical Guidelines G8-G11 have been adopted that support the implementation of the Convention and provide formal guidance on testing procedures	HS
		Pilot site constructed in year 4, with results evaluated and disseminated in year 5	Y	Y	Y	N	Y	This Target replaced by guidelines on best practice in sediment management. This was published as Monograph 23 - Guidance on Best Management Practices for Sediment Reception Facilities under the Ballast Water Management Convention. These are now available for each country. This was an Adaptive Management decision agreed by GPTF and ExCom	HS

OBJECTIVE AND OUTCOMES	INDICATOR	TARGETS	SPECIFIC	MEASURABLE	ACHIEVABLE	RELEVANT	TIME-BOUND	COMMENTS ON EFFECTIVENESS AND ACHIEVEMENT	RATING OF DELIVERY
		Up to 10 innovative technology projects provided with seed money through GIA (alternatively, 3 to 4 best currently available technologies tested onboard a ship for technology transfer/training purpose).	Y	Y	Y	N	N	7 International Conferences on Ballast Water Management to date GIA has supported expert workshops leading to Port-based measures being developed Monograph 20 on 'Establishing equivalency in the performance testing and compliance monitoring of emerging alternative Ballast Water Management Systems - A Technical Review	HS
		2 technology conferences and 2 R&D forums held, with participation by LPC scientists and other representatives	Y	Y	Y	Y	N	6 R&D Forums have taken place and proceedings are accessible. LPC scientists and other stakeholders in attendance	HS

ANNEX 2: List of Training and Capacity Building Workshops supported through the Globallast Partnerships Project

Activity	Dates	Outcome / Description	Venue
Red Sea and Gulf of Aden Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management	Jun-06	Regional Train-the-Trainer Course including hands on training	Hurghada, Egypt
1st West and Central Africa (GCLME Region) Task Force Meeting and seminar on Ballast Water Management	Oct-06	Establishment of Regional Task Force and Development of Key elements of Regional Strategy	Ghana, Accra
Turkey-First National Seminar and Task Force Meeting on Ballast Water Management	Oct-07	draft NTF and National Roadmap	Istanbul, Turkey
National Seminar on Ballast Water Management – Mauritius (Indian Ocean – Pilot Region)	Jan-08	Development of National Roadmap	Port Louise, Mauritius
Wider Caribbean Regional Training Course on Ballast Water Management	Feb-08	Regional Train-The-Trainer Course	Kingston, Jamaica
Mediterranean Regional Training Course on Ballast Water Management	Apr-08	Regional Train-the-Trainer Course	Alexandria, Egypt
Contemporary Oceans Policy and Management Issues Seminar: World Maritime University Lecture (Global)	May-08	Lecture on BWM convention and technologies	Malmo, Sweden
Croatia-National Seminar and Task Force Meeting on Ballast Water Management	May-08	Formation of NTF and Development of National Roadmap	Zagreb, Croatia
Turkey-Second National Task Force Meeting on Ballast Water Management	May-08	Development of National Policies	Ankara, Turkey
Ballast Water Management Workshop during OSCE International Expert Conference in the Black Sea Basin" (Black Sea – Pilot Region)	Jun-08	IMO chaired and facilitated the workshop on Ballast water management	Odessa, Ukraine
Central America Regional Workshop on "Identify and address trade-related aquatic invasive	Jul-08	GloBallast lecture on ballast water issues and management options	San Salvador, El Salvador
Colombia- 1st National Seminar on BWM	Jul-08	Formation of NTF	Bogotá, Colombia
Bahamas-National Seminar and task Force Meeting on Ballast Water Management	Sep-08	Awareness raising and Development of National Task Force	Nassau, Bahamas
Trinidad and Tobago-National Seminar and task Force Meeting on Ballast Water Management	Sep-08	Formation of NTF and Development of National Roadmap	Port of Spain, Trinidad and Tobago
Argentina-National Seminar and task Force Meeting on Ballast Water Management	Sep-08	Formation of NTF and Development of National Roadmap	Buenos Aires, Argentina

1st Mediterranean Regional Task Force Meeting and seminar on Ballast Water Management	Sep-08	Establishment of Regional Task Force and Development of Key elements of Regional Strategy	Dubrovnik, Croatia
1st South East Pacific Regional Task Force Meeting and Seminar for Ballast Water Management	Sep-08	Establishment of Regional Task Force and Development of Key elements of Regional Strategy	Valparaiso, Chile
Mediterranean Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management	Oct-08	Regional Train-the-Trainer Course including hands on training	Istanbul, Turkey
Colombia- National Training on Ballast Water Management using GloBallast Training package in Spanish	Oct-08	Training on Ballast Water Management	Cartagena, Colombia
Colombia - 2nd National Seminar on BWM	Oct-08	Training using the introductory Ballast Water Management course from IMO-GloBallast	Cartagena, CO
Red Sea and Gulf of Aden Regional Training Course on Ballast Water Management	Nov-08	Regional Train-the-Trainer Course	Aden, Yemen
Panama – 1st National Seminar and national Task force meeting	Feb-09	Start discussing the NTF formation and Development of National Roadmap	Panama City, Panama
South East Pacific Regional Training Course on Ballast Water Management as part of the ROCRAM regional Training	Mar-09	Regional Train-the-Trainer Course (including other ROCRAM countries)	Viña del Mar, Chile
West and Central Africa (GCLME) Regional Training Course on Ballast Water Management	Mar-09	Regional Train-the-Trainer Course	Accra, Ghana
Caspian Regional Training Course on Ballast Water Management	Apr-09	Regional Train the –Trainer training on BWM	Baku, Azerbaijan
South Pacific Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management	Jun-09	Regional Train-the-Trainer Course including hands on training	Suva, Fiji
South Pacific Regional Training Course on Ballast Water Management	Jun-09	Regional Train-the-Trainer Course	Suva, Fiji
Baltic Regional Training Course on Ballast Water Management	Jun-09	Regional Train the –Trainer training on BWM	Klaipeda, Lithuania
Colombia - 3rd National Ballast Water Management Seminar	Jun-09	Capacity building and Awareness	Palmira, CO
Egypt – 1st National Seminar and task Force Meeting on Ballast Water Management	Jun-09	Formation of NTF and Development of National Roadmap	Suez, Egypt
Jordan – 1st National Seminar and task Force Meeting on Ballast Water Management	Jun-09	Formation of NTF and Development of National Roadmap	Amman, Jordan

1st Red Sea and Gulf of Aden Regional Task Force Meeting and seminar on Ballast Water Management	Jun-09	Establishment of Regional Task Force and Development of Key elements of Regional Strategy	Aqaba, Jordan
West and Central Africa (GCLME) Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management	Jul-09	Regional Train-the-Trainer Course including hands on training	Abidjan, Cote d'Ivoire
Yemen – 1st National Seminar and task Force Meeting on Ballast Water Management	Jul-09	Formation of NTF and Development of National Roadmap	Sanaa, Yemen
2nd West and Central Africa (GCLME Region) Regional Task Force Meeting and seminar on Ballast Water Management	Jul-09	Elaboration of the regional strategy based on the previous regional discussions and development of an action plan	Abidjan, Côte d'Ivoire
Wider Caribbean Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management (jointly with CPPS)	Aug-09	Regional Train-the-Trainer Course including hands on training	Cartagena, Colombia
South East Pacific Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management (jointly with WCAR)	Aug-09	Regional Train-the-Trainer Course including hands on training	Cartagena, Colombia
2nd (Interim) South East Pacific Regional Task Force Meeting and Seminar for Ballast Water Management	Sep-09	Further elaboration of the regional strategy document and development of an action plan	Buenos Aires, Argentina
Central American Region Regional Training Course on Ballast Water Management	Oct-09	Regional Train the –Trainer training on BWM	San Jose, Costa Rica
National Ballast Water Training and Seminar – Montenegro	Nov-09	Awareness raising and national roadmap development	Montenegro
National Seminar on Ballast Water Management – India	Nov-09	Awareness raising among the Port Sector	Goa, India
National Training Course/Awareness Raising Seminar	Nov-09	Capacity building and Awareness raising	Montenegro
Mediterranean Regional Training Course on Legal aspects of Ballast Water Management	Dec-09	Regional Train-the trainer course in legal training	Istanbul, Turkey
Wider Caribbean Regional Training Course on Legal aspects of Ballast Water Management	Dec-09	Regional Train-the trainer course in legal training	Panama City, Panama
Red Sea and Gulf of Aden Regional Training Course on Legal aspects of Ballast Water Management	Dec-09	Regional Train-the trainer course in legal training	Hurghada, Egypt
Panama – 2nd National Seminar and national Task force meeting	Dec-09	Formation of NTF and Development of National Roadmap	Panama City, Panama
1st Wider Caribbean Regional Task Force Meeting and seminar on Ballast Water Management	Dec-09	Establishment of Regional Task Force and Development of Key elements of Regional Strategy	Panama City, Panama

CPPS Regional workshop on harmonization of BW sampling and monitoring methodologies	Feb-10	Regionally harmonized sampling methodologies	Chile
Nigeria– 1st National Seminar and National Task force meeting	Feb-10	Formation of NTF and Development of National Roadmap	Lagos, Nigeria
Sierra Leone – 1st National Seminar and National Task force meeting	Feb-10	Capacity building and Awareness raising	Freetown, Sierra Leone
Yemen – 2nd National Seminar and National Task force meeting	Feb-10	Review of national level progress and action plans	Sanaa, Yemen
Jordan – 2nd National Seminar and National Task force meeting	Feb-10	Review of national level progress and action plans	Aqaba, Jordan
Syria – 1st National Seminar and National Task force meeting	Feb-10	Capacity building and Awareness raising	Lattakia, Syria
Egypt – 2nd National Seminar and National Task force meeting	Feb-10	Review of national level progress and action plans	Suez, Egypt
Western Indian Ocean Regional Training and seminar on Ballast Water Management	Apr-10	Training on BWM issues to ASCLME Project stakeholders	Port-Louis, Mauritius
South East Pacific + Argentina Regional Training Course on Legal aspects of Ballast Water Management	May-10	Regional Train-the trainer course in legal training	Buenos Aires, Argentina
Honduras - 1st National Seminar and National Task force meeting	May-10	Formation of NTF and Development of National Roadmap	Tegucigalpa, Honduras
Uruguay – 1st National Seminar and National Task force meeting	May-10	Capacity building and Awareness raising	Monte video, Uruguay
Argentina – 2nd National Seminar and National Task force meeting	May-10	Review of national level progress and action plans	Buenos Aires, Argentina
2nd Mediterranean Regional Task Force Meeting and seminar on Ballast Water Management	May-10	Further elaboration of the regional strategy document action plan. Draft final Strategy endorsed.	Istanbul, Turkey
West and Central Africa Regional Training Course on Legal aspects of Ballast Water Management	Jun-10	Regional Train-the trainer course in legal training	Lagos, Nigeria
Central America Regional Training Course on Legal aspects of Ballast Water Management	Jun-10	Regional Train-the trainer course in legal training	Tegucigalpa, Honduras
Ghana – 2nd National Seminar and National Task force meeting	Jun-10	Review of national level progress and action plans	Accra, Ghana
Black Sea Regional Training Course on Legal aspects of Ballast Water Management	Jul-10	Regional Train-the trainer course in legal training	Odessa, Ukraine

Syria – 2nd National Seminar on BWM	Jul-10	Capacity building and Awareness raising	Lattakia, Syria
Tanzania – 1st National Seminar and National Task force meeting	Sep-10	Capacity building and Awareness raising	Dar es Salaam, Tanzania
3rd South East Pacific Regional Task Force Meeting and Seminar for Ballast Water Management	Sep-10	Review of Regional Action Plan and progress	Bogota, Colombia
South East Asia regional legal training on ballast water management for the South-East Asia region under the IMO-Singapore third Party Programme	Oct-10	Regional Train-the trainer course in legal training	Singapore
China – National seminar and consultation meeting	Oct-10	Review of national level progress and action plans	Qingdao, China
Benin – 1st National seminar	Nov-10	Capacity building and Awareness raising	Cotonou, Benin
Cameroon – 1st National seminar	Nov-10	Capacity building and Awareness raising	Douala, Cameroon
Liberia – 1st National seminar	Nov-10	Capacity building and Awareness raising	Monrovia, Liberia
Senegal – 1st National seminar	Nov-10	Capacity building and Awareness raising	Dakar, Senegal
Ethiopia – 1st National seminar	Nov-10	Capacity building and Awareness raising	Addis Ababa, Ethiopia
Kenya – 1st National seminar	Nov-10	Capacity building and Awareness raising	Mombasa, Kenya
Peru – 1st National seminar	Nov-10	Capacity building and Awareness raising. Transfer of knowledge from Pilot country (Brazil)	Lima, Peru
Bangladesh – 1st National seminar	Dec-10	Capacity building and Awareness raising	Dhaka, Bangladesh
Sri Lanka – 1st National seminar	Dec-10	Capacity building and Awareness raising	Colombo, Sri Lanka
Indonesia – 1st National seminar	Dec-10	Capacity building and Awareness raising	Jakarta, Indonesia
EBRD Phase 1 training on BWM, using GloBallast training package	Feb-11	Coordination and facilitation of training	Odessa, Ukraine
Participation of the WCAR RCO in the Regional Workshop for Senior Maritime Administrators in Trinidad and Tobago	Feb-11	Awareness and facilitation of regional harmonization on Ballast Water Management	Port of Spain, Trinidad and Tobago

Mediterranean and CIS pilot CME training workshop	Mar-11	Training on CME	Split, Croatia
EBRD Phase 1 training on BWM, using GloBallast training package	Apr-11	Coordination and facilitation of training	Gelendzhik, Russia
Viet Nam – 2nd National seminar	Apr-11	Capacity building and Awareness raising	Hanoi, Viet Nam
South Pacific Regional Training on the Legal Implementation of the BWM Convention with particular emphasis on Compliance Monitoring and Enforcement	May-11	Training on CME	Suva, Fiji
South Pacific Regional Training on the Legal Implementation of the BWM Convention with particular emphasis on Compliance Monitoring and Enforcement	May-11	Regional Train-the trainer course in legal training	Suva, Fiji
Angola – 1st National seminar including twinning with Brazil	May-11	Capacity building and Awareness raising	Luanda, Angola
Thailand – 2nd National seminar	May-11	Capacity building and Awareness raising	Bangkok, Thailand
Fiji – 1st National seminar	May-11	Capacity building and Awareness raising	Suva, Fiji
2nd Red Sea and Gulf of Aden Regional Task Force Meeting and seminar on Ballast Water Management	Jun-11	Review of progress achieved since 1st RTF and agreement on draft strategy for adoption and endorsement by the Contracting Parties to the Jeddah Convention.	Hurghada, Egypt
Black sea and Caspian Sea Regional Training Course on Port Biological Baseline Surveys for Ballast Water Management	Jul-11	Regional Train-the-Trainer Course including hands on training	Batumi, Georgia
CPPS Regional workshop on sampling techniques for ballast water	Jul-11	Regionally harmonized sampling methodologies	Buenos Aires, Argentina
Mozambique – 1st National seminar	Jul-11	Capacity building and Awareness raising	Mozambique
Madagascar – 1st National seminar	Jul-11	Capacity building and Awareness raising	Madagascar
Comoros – 1st National seminar	Jul-11	Capacity building and Awareness raising	Comoros
Georgia – 1st National seminar	Jul-11	Capacity building and Awareness raising	Batumi, Georgia
National Training Course on Port Biological Baseline Surveys for Ballast Water Management	Aug-11	National Train-the-Trainer Course including hands on training	Lagos, Nigeria
Tonga – 1st National seminar	Aug-11	Capacity building and Awareness raising	Tonga

West and Central Africa (GCLME) CME training workshop	Sep-11	Training on CME	Lomé, Togo
India – National seminar and consultation meeting	Sep-11	Review of national level progress and action plans	Mumbai, India
3rd GCLME Regional Task Force Meeting and seminar on Ballast Water Management	Sep-11	Review of Regional Action Plan and progress + Translation of Regional Strategic Action Plan into French, Spanish and Portuguese	Lomé, Togo
Marshall Islands – National seminar	Oct-11	Capacity building and Awareness raising	Marshall Islands
Wider Caribbean CME training workshop	Nov-11	Training on CME	Kingston, Jamaica
EBRD Phase 2 training on BWM, using GloBallast training package	Dec-11	Coordination and facilitation of training	Odessa, Ukraine and Gelendzhik, Russia
Malta – National seminar	Apr-12	Capacity building and Awareness raising	Valletta, Malta
2nd Wider Caribbean Regional Task Force Meeting on the ratification and implementation of the IMO Convention on Ballast Water Management (BWM)	Apr-12	Review and adoption of Regional Strategic Action Plan	Port of Spain, Trinidad and Tobago
PERSGA CME training workshop	May-12	Training on CME	Aqaba, Jordan
South Asia Regional Ballast Water Management Strategy Development Meeting	May-12	Development of regional strategy and action plan in the South Asia region	Mumbai, India
Tunisia – National Seminar	Jun-12	Capacity building and Awareness raising	Tunis, Tunisia
CPPS CME training workshop	Jul-12	Training on CME	Valparaiso, Chile
4th Regional Task Force Meeting on the implementation of the Ballast Water Management Convention for the South Pacific region	Jul-12	Review of Regional Action Plan and progress	Valparaiso, Chile
Caspian Sea Regional Ballast Water Management Strategy and Action Plan Workshop	Jul-12	Finalisation of draft regional strategy	Baku, Azerbaijan
CME training workshop using GloBallast training package in ROCRAM region	Aug-12	Training on CME using GloBallast training package in Spanish	Lima, Peru
CME training workshop using GloBallast training package in ROCRAM-CA region	Sep-12	Training on CME using GloBallast training package in Spanish	Santo Domingo, Dominican Republic
Sudan – National seminar on BWM organised by PERSGA in the framework of the twinning programme with Jordan	Sep-12	Capacity building and Awareness raising	Sudan

Djibouti – National seminar on BWM on BWM organised by PERSGA in the framework of the twinning programme with Jordan	Sep-12	Capacity building and Awareness raising	Djibouti
Morocco – National Seminar	Oct-12	Capacity building and Awareness raising	Morocco
Israel – National seminar	Oct-12	Capacity building and Awareness raising	Israel
GIA Activity 8 - Workshop on Port-Based Emergency/Contingency Measures for BWM	Nov-12	Experts from around the world gathered for a one-day workshop to present experiences, and discuss the possible needs for port-based ballast water treatment systems	Singapore
Malaysia – National seminar	Nov-12	Capacity building and Awareness raising	Malaysia
Congo – National CME training	Nov-12	Capacity building and Awareness raising	Pointe Noire, Congo
Côte d'Ivoire – National CME training	Nov-12	Capacity building and Awareness raising	Abidjan, Côte d'Ivoire
ASEAN Regional Ballast Water Management Strategy and Action Plan Workshop	Nov-12	Development of regional strategy and action plan in the ASEAN region, in partnership with South Asia countries	Singapore
EBRD trainings in Mediterranean region using GloBallast training package	Dec-12	Coordination and facilitation of training	Turkey
Liberia – National CME training	Dec-12	Capacity building and Awareness raising	Monrovia, Liberia
Sierra Leone – National CME training	Dec-12	Capacity building and Awareness raising	Freetown, Sierra Leone
Jamaica – National CME training	Dec-12	Capacity building and Awareness raising	Kingston, Jamaica
Panama – National CME training	Dec-12	Capacity building and Awareness raising	Panama City, Panama
Nicaragua – National seminar	Mar-13	Capacity building and Awareness raising	Nicaragua
Colombia – National CME seminar	Jun-13	Capacity building on CME and review of national level progress and action plan	Colombia
Trinidad and Tobago – National CME training	Jul-13	Capacity building and Awareness raising	Port of Spain, T&T

Bahamas – National CME training	Aug-13	Capacity building and Awareness raising	Nassau, Bahamas
Regional training course on CME using new Sampling chapter for the ROPME Sea Region	Sep-13	Training on CME using updated GloBallast training package	Doha, Qatar
Sudan – National CME training	Sep-13	Capacity building on CME	Port Sudan, Sudan
Sao Tome and Principe – National CME training	Sep-13	Capacity building on CME	Sao Tome, Sao Tome and Principe
National Forum First National Integrated Maritime Security	Sep-13	Capacity building and awareness raising	Bogota, Colombia
5th Regional Steering Committee Meeting on the BWM for the ROPME Sea Area	Sep-13	Revision of the regional BWM Action plan and road map	Doha, Qatar
Regional training course on CME using new Sampling chapter for ASEAN region	Oct-13	Training on CME using updated GloBallast training package	Manila, Philippines
Jordan – National CME training	Oct-13	Capacity building on CME	Amman, Jordan
Djibouti and Somalia National CME training	Oct-13	Capacity building on CME	Djibouti
Yemen – National CME training	Oct-13	Capacity building on CME	Aden, Yemen
Algeria – National Seminar	Oct-13	Capacity building and Awareness raising	Algiers, Algeria
Togo – National CME training	Oct-13	Capacity building on CME	Lomé, Togo
Solomon Islands – National CME training and First NTF	Oct-13	Capacity building on CME and review of action plan	Solomon Islands
Vanuatu – National CME training and First NTF	Oct-13	Capacity building on CME and review of action plan	Vanuatu
Philippines – National Legal seminar	Oct-13	Capacity building and awareness raising	Manila, Philippines
National seminar on BWM in Dominica and St. Lucia in framework of twinning with Trinidad and Tobago	Nov-13	Capacity building and awareness raising in framework of twinning LPC-PC	Dominica and St. Lucia
Regional training course on CME using new Sampling chapter for the Black Sea Region	Dec-13	Training on CME using updated GloBallast training package	Novorossiysk, Russian Federation

Equatorial Guinea – National CME training	Dec-13	Capacity building on CME	Malabo, Equatorial Guinea
Cape Verde - – National CME training	Dec-13	Capacity building on CME	Cape Verde
Papua New Guinea – National CME training and First NTF	Jan-14	Capacity building on CME and review of action plan	Solomon Islands
South Asia Regional Task Force and Workshop to Develop a Regional Strategy and Action Plan for Ballast Water Management in partnership with SACEP	Feb-14	Finalization of the Regional Strategic Plan for the full implementation of the BWM Convention in South Asia	Colombo, Sri Lanka
National training on sampling of ballast water	May-14	Capacity building on CME with emphasis on sampling	Aqaba, Jordan
Regional Workshop to follow up and update the regional strategy and action plan to implement the BWM Convention in the Red Sea and Gulf of Aden region with participation from Med region	May-14	Update the regional strategy and action to incorporate the latest regulatory developments at IMO and at the regional and national levels	Jeddah, Saudi Arabia
Regional training on sampling of ballast water	Jul-14	Training on CME with emphasis on Sampling and analysis hands-on exercise	Cartagena, Colombia
National seminars on BWM in Peru and Ecuador in framework of twinning with Argentina and Chile	Jul-14	Capacity building and awareness raising in framework of twinning LPC-PC	Lima, Peru and Guayaquil, Ecuador
5th Regional Task Force Meeting on the implementation of the Ballast Water Management Convention for the South Pacific region with participation from Wider Caribbean region	Jul-14	Review of Regional Action Plan and progress at national level towards Project's objective sand milestones	Cartagena, Colombia
Democratic Republic of Congo – National CME training	Sep-14	Capacity building on CME	Kinshasa, DRC
Regional training course on CME of the BWM Convention for East Africa	Nov-14	Training on CME using updated GloBallast training package	Dar es Salaam, Tanzania
Regional "train-the-trainer" workshop on PSC under the BWM Convention with emphasis on sampling and analysis of ballast water	Jun-15	2 national experts from each LPC (Croatia, Egypt, Ghana, Jordan, Nigeria and Turkey) trained on sampling and analysis	Turkey
Regional "train-the-trainer" workshop on PSC under the BWM Convention with emphasis on sampling and analysis of ballast water	Oct-15	2 national experts from each LPC (Argentina, Bahamas, Chile, Colombia, Jamaica, Panama, T&T) trained on sampling and analysis	Duluth, USA
2nd meeting for ASEAN Regional Ballast Water Management Strategy	Nov-15	Development of regional strategy and action plan in the ASEAN region, in partnership with South Asia countries	Thailand

Delivery of pilot course on BWM CME at a training institution in Chile with participation of national expert on sampling and analysis	Dec-15	Educational institution capacitated for delivery of training courses on BWM	Chile
Delivery of pilot course on BWM CME at a training institution in Egypt with participation of national expert on sampling and analysis	Jan-16	Educational institution capacitated for delivery of training courses on BWM	Egypt
Delivery of pilot course on BWM CME at a training institution in Jordan with participation of national expert on sampling and analysis	Jan-16	Educational institution capacitated for delivery of training courses on BWM	Jordan
Delivery of pilot course on BWM CME at a training institution in Bahamas with participation of national expert on sampling and analysis	Jan-16	Educational institution capacitated for delivery of training courses on BWM	Bahamas
Delivery of pilot course on BWM CME at a training institution in Colombia with participation of national expert on sampling and analysis	May-16	Educational institution capacitated for delivery of training courses on BWM	Cartagena, Colombia
Delivery of pilot course on BWM CME at a training institution in Argentina with participation of national expert on sampling and analysis	May-16	Educational institution capacitated for delivery of training courses on BWM	Argentina
Delivery of pilot course on BWM CME at a training institution in Panama with participation of national expert on sampling and analysis	Jul-16	Educational institution capacitated for delivery of training courses on BWM	Panama
Delivery of pilot course on BWM CME at a training institution in Jamaica with participation of national expert on sampling and analysis	Aug-16	Educational institution capacitated for delivery of training courses on BWM	Kingston, Jamaica
Regional workshop on practical aspects of Risk assessment and PBBS for the implementation of the BWM Convention	Sep-16	2 national experts from each LPC (Argentina, Bahamas, Chile, Colombia, Jamaica, Panama, T&T and Venezuela) trained on PBBS design	Jamaica
Delivery of pilot course on BWM CME at a training institution in Ghana with participation of national expert on sampling and analysis	Sep-16	Educational institution capacitated for delivery of training courses on BWM	Ghana
Regional workshop on practical aspects of Risk assessment and PBBS for the implementation of the BWM Convention	Nov-16	2 national experts from each LPC (Croatia, Egypt, Ghana, Jordan, Nigeria) trained on PBBS design	Croatia
Delivery of pilot course on BWM CME at a training institution in Trinidad & Tobago with participation of national expert on sampling and analysis	Jan-17	Educational institution capacitated for delivery of training courses on BWM	Trinidad and Tobago
Delivery of pilot course on BWM CME at a training institution in Croatia with participation of national expert on sampling and analysis	Feb-17	Educational institution capacitated for delivery of training courses on BWM	Croatia

ANNEX 3: Terms of Reference for the Terminal Evaluation

TERMS OF REFERENCE FOR THE CONSULTANT

Terminal evaluation of the GEF-UNDP-IMO GloBallast Partnerships Programme

INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the *GEF-UNDP-IMO GloBallast Partnerships Programme* (PIMS 3050 IW FSP: Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)).

The essentials of the project to be evaluated are presented in the Project summary available in the next section.

PROJECT SUMMARY

Project Title:	Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)			
GEF Project ID:	2261		*at endorsement (Million US$)*	*at completion (Million US$)*
UNDP Project ID:	00058008	GEF financing:	6.387	
Country:	Global	IA/EA own:	4.318	
Region:	Global	Government:	9.849	
Focal Area:	International Waters	Other:	3.533	
FA Objectives, (OP/SP):		Total co-financing:	17.701	
Executing Agency:	IMO	Total Project Cost:	24.088	
Other Partners involved:		ProDoc Signature (date project began):		17 Sept 2007
		(Operational) Closing Date:	Proposed: Sept 2012	Actual: June 2017

The project was designed to assist vulnerable developing states and regions to implement sustainable, risk-based mechanisms for the management and control of ships' ballast water and sediments in order to minimize the adverse impacts of aquatic invasive species transferred by ships. In the achievement of this objective, 4 outcomes have been identified, each with corresponding outputs and activities. The four key outcomes expected from the project are as follows:

1) Learning, evaluation and adaptive management increased;
2) Ballast Water Management Strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level;
3) Knowledge management tools and marine monitoring systems are effectively utilised to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, and enhance maritime sector communications;
4) Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions.

OBJECTIVE AND SCOPE

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

EVALUATION APPROACH AND METHOD

An overall approach and method[4] for conducting project terminal evaluations of UNDP-supported GEF-financed projects has developed over time. The Consultant (evaluator) is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact,** as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (Appendix C). The Consultant is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The Consultant is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, GloBallast PCU, UNDP GEF Technical Adviser region and key stakeholders. The Consultant is expected to conduct field missions to Panama and London. Interviews will be held with the following organizations and individuals at a minimum: GloBallast Project Coordination Unit (PCU); IMO officers; UNDP officers; Strategic Partners (e.g. World Maritime University, IMarEST, etc.); GloBallast Regional Coordinators; National Focal Points for GloBallast Lead Partnering Countries.

The Consultant will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the Consultant considers useful for this evidence-based assessment. A list of documents that the project team will provide to the Consultant for review is included in Appendix B of this Terms of Reference.

EVALUATION CRITERIA AND RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see Appendix A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact.** Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in Appendix D.

Evaluation Ratings:			
1. Monitoring and Evaluation	***rating***	**2. IA& EA Execution**	***rating***
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	**rating**	**4. Sustainability**	**rating**
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental:	
		Overall likelihood of sustainability:	

PROJECT FINANCE / COFINANCE

[4] For additional information on methods, see the Handbook on Planning, Monitoring and Evaluating for Development Results, Chapter 7, pg. 163.

The evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The Consultant(s) will receive assistance from the Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US$)		Government (mill. US$)		Partner Agency (mill. US$)		Total (mill. US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants								
Loans/Concessions								
• In-kind support								
• Other								
Totals								

MAINSTREAMING

UNDP-supported GEF-financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The Consultant will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.[5]

CONCLUSIONS, RECOMMENDATIONS AND LESSONS

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the Executing Agency (IMO). It has been agreed that the Executing Agency will contract the Consultant and ensure the timely provision of salaries, per diems and travel arrangements for the evaluation team. The GloBallast PCU will also be responsible for liaising with the Consultant to set up stakeholder interviews, arrange field visits, coordinate with the Government representatives, etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be 40 days according to the following plan:

Activity	Duration	Completion Date
Preparation	*5 days*	*10 March 2017*
Evaluation Mission	*15 days*	*30 April 2017*
Draft Evaluation Report	*10 days*	*15 May 2017*
Final Report	*10 days*	*31 May 2017*

[5] A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: ROTI Handbook 2009

EVALUATION DELIVERABLES

The Consultant is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Consultant provides clarifications on timing and method	No later than 1 week before the mission to Panama.	Consultant submits to UNDP and GloBallast PCU
Presentation	Initial Findings	End of evaluation mission (London)	To PCU and UNDP
Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to IMO, reviewed by RTA, PCU, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to IMO and UNDP for uploading to UNDP ERC.

* When submitting the final evaluation report, the Consultant is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

CONSULTANT/EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'.

PAYMENT SCHEDULE

Days	Milestone
15	Following submission of the inception report and completion of the first mission travel to Panama
15	Following submission and approval of the 1st draft of the terminal evaluation report
10	Following submission and approval (IMO and UNDP RTA) of the final terminal evaluation report

APPENDIX A: PROJECT LOGICAL FRAMEWORK

APPENDIX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE CONSULTANT

- Project document (full version, including updates and reports from GPTF meetings).
- Project reports – including Annual APR/PIR, project budget revisions, midterm review, etc.
- GEF focal area tracking tools
- Project general files
- National strategic and legal documents, developed by Lead Partnering Countries
- Regional documents
- Awareness materials
- Courses and presentations
- Any other materials that the Consultant considers useful for this evidence-based assessment

ANNEX 4: EVALUATION CONSULTANT CODE OF CONDUCT AND AGREEMENT FORM

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8.

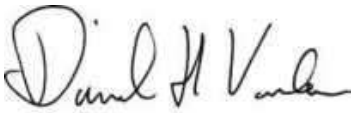
Evaluation Consultant Agreement Form[6]

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: David Hugh Vousden

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at *Grahamstown, South Africa* on *14th February 2017*



Signature:

[6] www.unevaluation.org/unegcodeofconduct

ANNEX 5: Itinerary and Missions

Mission 1 – Panama

Purpose: A. Attendance at 2017 Panama Maritime Conference
B. Interviews with GloBallast Stakeholders
C. Attendance at 5th GloBallast Global Project Task Force meeting

Dates: 10th March - 21st March 2017

Mission 2 – IMO, London

Purpose: A. Further interviews with Stakeholders
B. Interviews with IMO
C Interviews with PCU

Dates: 2nd April – 17h April 2017

ANNEX 6: List of persons interviewed

Name	Surname	Panama (yes/no)	Country	Organization	Interview	Questionnaire Response
Adaangiak	Akanteyam	yes	Ghana	Ghana Maritime Authority	Yes	
Ronald	Alfred	yes	Trinidad and Tobago	Ministry of Works and Transport	Yes	Yes
Mohammed	Al-Gubari	yes	Yemen	Maritime Affairs Authority	Yes	
John	Alonso	No	IMO	IMO-GloBallast	Yes	
Sussana	Asagwara	yes	Nigeria	Nigerian Maritime Administration and Safety Agency (NIMASA)	Yes	Yes
Adnan	Awad	yes	IOI-SA	IOI-SA	Yes	
Miguel	Bartorelli	yes	Argentina	Prefectura Naval Argentina	Yes	Yes
Raphael	Baumler	yes	WMU	World Maritime University	Yes	Yes
Antoine	Blonce	No	IMO-GloBallast	IMO-GloBallast	Yes	
Mary Luz	Cañón Paez	yes	Colombia	Dirección General Marítima (DIMAR)	Yes	
Aicha	Cherif	No	UK	IMO	Yes	
Flavio	Da Costa Fernandes	yes	Brazil	Instituto de Estudos do Mar Almirante Paulo Moreira, Marinha do Brasil	Yes	Yes
Guillaume	Drillet	No	Singapore	GloBal TestNet	Yes	Yes
Klaus	Essig	No	Venezuela			Yes
Tim	Fileman	yes	UK	GloBal TestNet	Yes	Yes
Frederick	Haag	No	UK	IMO	Yes	Yes
Markus	Helavuori	No	UK	IMO	Yes	
Andrew	Hudson	yes	USA	UNDP	Yes	
Theofanis	Karayannis	No	IMO	IMO	Yes	
Franck	Lauwers	yes	IMO	REMPEC	Yes	
Maja	Markovcic	yes	Croatia	Ministry of the Sea, Transport and Infrastructure	Yes	
Jose	Matheickal	No	IMO	IMO-GloBallast	Yes	
Stefan	Micallef	No	IMO	IMO	Yes	
Jonathan	Pace	No	UK	IMO	Yes	
David	Querales Rivero	yes	Venezuela	Instituto Nacional de los Espacios Acuaticos (INEA)	Yes	
Fabian	Ramirez Cabrales	yes	Colombia	Escuela Naval de Cadetes "Almirante Padilla"	Yes	
Kitae	Rhie	yes	Korea	Kyung Hee University,	Yes	
Christian	Severin	yes	GEF	GEF	Yes	
Kyungsoon	Shin	yes	Korea	KIOST	yes	
Bertrand	Smith	yes	Jamaica	Maritime Authority of Jamaica	Yes	
Fernando	Solorzano	yes	Panama	Maritime Authority of Panama	Yes	
Jonathan	Spremulli	No	ICS	International Chamber of Shipping	Yes	
Enrique	Vargas	yes	Chile	DIRECTEMAR	Yes	
Stewart	Williams	yes	Australia	Secretariat of the Pacific Regional Environmental Programme	Yes	
Brent	Williamson	yes	Bahamas	Ministry of Transport and Aviation	Yes	
Bashar	AlBataineh	yes	PERSGA	PERSGA	Yes	
Bashar	AlBataineh	yes	PERSGA	PERSGA	Yes	
Mohammad	Salman	No	Jordan	Jordan Martime Commission		Yes
Simon	Walmsley	No	UK	WWF International		Yes

Moataz	Farrag	No	UK	City of Glasgow College		Yes
Stephan	Gollasch	No	Germany			Yes
Alex	Sagaydak	No	Ukraine	Olvia Maritime Ltd		Yes
Annalisse	Sly	No	Australia	AMSA		Yes
Tom	Waite	No	USA	Florida Institute of Technology		Yes
Lee	Adamson	No		IMO	Yes	
Dandu	Pughiuc	No	UK	Retired		
Mish	Hamid	No	France	IW:LEARN	Yes	
Stanislav	Suprunenko	No	UK	European Bank for Reconstruction and Development	Yes	
Shaj	Thayil	No	Singapore	CMA CGM International Shipping Company Pte Ltd	Yes	

ANNEX 7: List of Documents Reviewed

Project Submission Documents

- UNDP-IMO-GEF Project Document: Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water (GloBallast Partnerships)
- Request for CEO Endorsement
- Executive Summary with STAP Review
- GloBallast partnerships: GEF Project Review Sheet
- GloBallast Partnerships: GEF Council Notes and Response
- GloBallast Partnerships: Inception Report
- GEF IW Project Tracking Tool

Project Implementation and Monitoring Reports and Management Documents

- Minutes of the Executive Committee (ExCom) Meeting for the GloBallast Partnerships Programme
- GPTF Meeting Proceedings: 1-5. (5 in total)
- Various MoUs (CPPS; IMO/PERSGA; Netherlands/UNEP/IMO: REMPCS; etc.)
- Annual Performance Reports: 2009 – 2016 (8 in total)
- ExCom Minutes: 2010-1016 (6 in total)
- Quarterly Evaluation Reports: 2008 – 2017 (40 in total)
- Various Financial Reports and Summaries as provided by PCU

GloBallast Independent Evaluations

- Pilot Phase Mid Term Evaluation
- Pilot Phase Terminal Evaluation
- Globallast Partnership Mid-Term Evaluation
- Ballast Water Management Training – Batumi, Georgia. Evaluation and Observations. June 2013

National Lead Partners Country Documents

- National Ballast Water Management Strategies - Lead Partner Countries (14 in total)
- National Ballast Water Management Strategies - Partner Countries (16 in total)
- National Ballast Water Economic Assessments (14 in total)
- National Legal Assessments (15 in total)

Research and Development Forum Reports and Global Test Net Reports

- Emerging Ballast Water Management Systems: Proceedings of the IMO-WMU Research and Development Forum26–29 January 2010, Malmö, Sweden.
- Ballast Water Management Systems: Proceedings of the Global R&D Forum on Compliance, Monitoring and Enforcement – The next R&D Challenge and Opportunity. 26-28 October 2011. Istanbul, Turkey.
- GEF-UNDP-IMO GloBallast-ROK. The 5th Global R&D Forum & Exhibition on Ballast Water Management.23-25 October 2013. Busan, Korea.
- 6th GEF-UNDP-IMO GloBallast R&D Forum and Exhibition on Ballast Water Management - Moving Towards Implementation. Montreal, Canada, 16 -18 March 2016
- Global TestNet Minutes from Meetings 1st to 7th (7 in total)
- GIA Task Force Minutes 1st – 8th (8 in total)

Various Ballast Water Management Information Documents

- Ballast Water Management Infrastructure Investment Guidance - 2014
- Delivering Improved Environmental Outcomes - The Marine Biosecurity Initiative - A Partnership between EBRD, GloBallast & Royal Haskoning DHV
- GloBallast Monograph Series No. 1 -25 Inclusive
- Ballast water treatment technologies and current system availability. Part of Lloyd's Register's Understanding Ballast Water Management series. September 2012
- International Waters Experience notes – soo9 – 02: Global Industry Alliance: Partnerships for Change

Training and Capacity Building Documents

- "Train-the-Trainer" Seminar on Port State Control under the Ballast Water Management Convention with Emphasis on Sampling and Analysis of Ballast Water. 2-4 June 2015, Gebze, Kocaeli, Turkey
- "Train-the-Trainer" Seminar on Port State Control under the Ballast Water Management Convention with Emphasis on Sampling and Analysis of Ballast Water 19-21 October 2015. Great Ships Initiative/Barkers Island Inn Superior, Wisconsin, USA
- Report on the GloBallast workshop on Risk Assessment and Port Biological Baseline Survey, Zagreb, Republic of Croatia (16-17 November2016)
- Report on the GloBallast workshop on Risk Assessment and Port Biological Baseline Survey in Kingston, Jamaica (21-22 September 2016)
- GEF-UNDP-IMO GloBallast Partnerships Programme training on Risk Assessment and Port Biological Baseline Surveys (PBBS). Participants Manual

Chapters or Discussions related to GloBallast in the following Reports and Publications

- Catalysing Ocean Finance Volume 1:
- Catalysing Ocean Finance Volume 2:
- From Coast to Coast - Celebrating 20 years of Transboundary Management of our Shared Oceans
- 25 Years of the GEF
- Voices of Impact: Speaking for the Global Commons - Stories from 25 Years of Environmental Innovation for Sustainable Development

PowerPoint Presentations Reviewed

- Status and Updates from all LPCs present (12 in total)
- Status and Updates from the RCOs present (5 in total)
- Port Biological Baseline Survey, Risk Assessment and DSS (WMU and IOI)
- GloBal TestNet 2010-2017. GloBal TestNet Secretariat
- IMO-EBRD Marine Biosafety Initiative. European Bank for Reconstruction and Development
- GloBallast Project Coordination Unit Progress Report Part 1 – Biennium. 2015-2016. GloBallast PCU.
- GloBallast Project Coordination Unit Progress Report Part 2 – Tools and Efforts. GloBallast Partnerships Programme: 10 years of success 2007-2017. GloBallast PCU
- The "Glo-X" Scaling-up: Transforming Maritime Industry

Websites Reviewed

- GloBallast Partnership Website (http://globallast.imo.org) – All pages
- European Bank for Reconstruction and Development (www.ebrd.com)
- International Maritime Organisation (http://www.imo.org)

ANNEX 8: Evaluation Question Matrix (As provided in Inception Report)

N.B. Two Questionnaires were used in the Evaluation. The first was a General Questionnaire suitable for all stakeholders, the second was a more detailed questionnaire targeting the Executing and Implementing Agencies (UNDP and IMO) as well as the PCU.

GLOBALLAST PARTNERSHIP PROJECT – TERMINAL EVALUATION GENERAL QUESTIONNAIRE FOR ALL STAKEHOLDERS AND PARTNERS

Please answer the following questions for the Evaluation process as and where appropriate. Please Note: The Terminal Evaluation is an **Independent** and **Confidential** process. All completed questionnaires should be returned to the Evaluator at david.vousden@asclme.org and **NOT** to the PCU.

EVALUATION CRITERIA QUESTIONS
How does the project relate to your interests and objectives as a stakeholder or partner and to the priorities of your institution or your country?
Do you feel the project, as originally designed, is now still relevant to the needs of the global shipping community?
Has the Project and its Outcomes significantly reduced the potential threat from invasive species to the coastal and marine environment and to those people who make their livelihood from the oceans?
In your opinion, do the majority of national governments support the project and its objectives (including the Convention on Ballast Water Management).
What changes would you have made, either at the beginning of the Project or during its lifetime, in order to make it more relevant?
Has the project promoted and improved the level of learning, evaluation and adaptive management related to the issues of ballast water and invasive species?
Do you feel that more effective Ballast Water Management strategies are now in place as demonstrations around the world? Do they have adequate and appropriate legal, policy and institutional foundations to make them effective?
Has the project put in place effective knowledge management and marine monitoring tools and systems? Have these helped to expand global public awareness and stakeholder support as well as improving general understanding of ballast water impacts on marine ecology?
Has the Project helped to create working public-private partnerships that have promoted and implemented the development of cost-effective ballast water technology solutions?
What changes would you have made, either at the beginning of the Project or during its lifetime, in order to make it more effective in delivering its intend Outcomes?
In your involvement with the Project do you feel that activities and support were handled in a cost-effective manner?
Specifically, was funding managed efficiently (procurement, disbursement, co-financing) throughout the project lifetime?
Was support and management to the project by the Project Coordination Unit, UNDP and IMO provided in an efficient and timely manner?
Where expertise was used to support the Project (e.g. technical consultants), were the people or institutions used appropriate?
Was there an effective collaboration and coordination between institutions responsible for implementing the Project or for delivering certain activities?
In your opinion, are the outcomes and successes from the Project likely to receive continued financial support once the GEF funding has finished?

Is there a strong sense of 'ownership' among the various Project partners and stakeholders that will be sufficient to continue supporting and promoting the Project' objectives?
Do you feel that there is strong enough political commitment to ensure sustainability of the objectives? What might threaten this in terms of and changes in political support?
Has adequate technical capacity been created to maintain the project's objectives (e.g. at the Port and the Port State level?)
Have appropriate laws, policies and frameworks been put in place at the national levels to support this sustainability of the Project's objectives?
Are there adequate market incentives to ensure sustained environmental and economic benefits?
Has the Project inadvertently created any risks to the environment or to livelihoods, economies or social welfare at the national or at the local (e.g. community) level?
Were the activities of the Project directly targeted towards reducing stresses on the environment?
Has the Project produced outcomes and outputs that can be scaled up and/or replicated? If so, has the Project been active in this replication and scaling-up process

Detailed Evaluation Question Matrix

As representatives of GEF, the Project Implementing Agency (UNDP) or the Project Executing Agency (IMO) it would be appreciated if you could complete this more detailed questionnaire. A more general questionnaire has been circulated to non-UN/GEF partners and stakeholders. This detailed questionnaire includes some more specific questions relating to GEF and UN requirements (e.g. such as SDGs, mainstreaming Issues, specific sustainability focal areas, etc.) that need to be addressed and evaluated/rated as standard UNDP requirements. If you have no knowledge or specific input to a specific question then please just add N/A.

Please return the completed questionnaire to david.vousden@asclme.org – with thanks!!

EVALUATION CRITERIA QUESTIONS	INDICATORS
Was/is the Project relevant to the various shipping Conventions and Protocols under IMO	How does the Project support existing Conventions?
Specifically, is the Project directly relevant to the BWM Convention	What has been the Project involvement and linkages to International Convention for the Control and Management of Ships Ballast Water & Sediments?
Did the Project's objective align with the priorities of the national governments and other regional management bodies, conventions and protocols?	What has been the level of coherence between Project objectives and national policy priorities as well as those of regional bodies and their conventions/protocols?
Has the Project been relevant to GEF, either specifically to the International Waters Portfolio or to other GEF focal areas (e.g. biodiversity)	What has been the level of coherence between project objective and GEF strategic priorities (including alignment of relevant focal area indicators)?
Has the Projects' deliveries and its long-term expectations been supportive to the Sustainable Development Goals or the previous Millennium Development Goals?	What have been the linkages between project objective and elements of the SDGs/MDGs?
Has the Project addressed the needs of target beneficiaries in all relevant sectors and were the relevant stakeholders involved in design and implementation?	Identity of target beneficiaries? Proof of Stakeholder/Beneficiary formal engagement arrangements in Project?
How has the project been effective/successful in achieving its long-term objectives?	Will the Project achieve its overall Objective **'to assist vulnerable developing states and regions to implement**

	sustainable, risk-based mechanisms for the management and control of ships' ballast water and sediments, in order to minimize the adverse impacts of aquatic invasive species transferred by ships'? Has it provided a new and positive landscape for the protection of biodiversity and livelihoods and the successful control and mitigation of the transfer of invasive species?
Does the Project provide relevant lessons and experiences for other similar projects in the future? (see Effectiveness below for detailed responses)	Has the experience of the project provided relevant lessons for other future projects?
How is the project relevant to other donor-supported activities?	Does the GEF funding support activities and objectives not addressed by other donors? How have GEF funds help to fill gaps, or provide additional stimuli, on areas which are not covered by other donors? Has there been coordination and complementarity with other donors?
Has the project been effective in achieving its expected Outcomes and Objectives?	Has the project been effective in the following areas: 1. Learning, evaluation and adaptive management increased 2. BWM strategies in place, with legal, policy and institutional reforms developed, implemented and sustained at national level. 3. Knowledge management tools and marine monitoring systems are effectively utilised to expand global public awareness and stakeholder support, improve understanding of ballast water impacts on marine ecology, end enhance maritime sector communications 4. Public-private partnerships developed to spur the development of cost-effective ballast water technology solutions.
How has the Project dealt with the predicted risks (as defined in the Project Document) and any unexpected risks that have arisen?	How well have risks, assumptions and impact drivers been managed? What was the quality of any risk mitigation strategies that were developed? Are there clear strategies related to risk-mitigation for the long-term sustainability of the project?
What lessons can be drawn from the design and implementation of this Project in relation to its EFFECTIVENESS that could be usefully captured or avoided in future projects?	What lessons have been learned from the Project regarding achievement of outcomes? What changes would have been beneficial in the Project Design that would have improved the ability of the project to achieve its results?
Was Project support and management provided efficiently?	Was any process of adaptive management and/or results-based management used?

	Were any changes to the Logical Framework and work-plans fed into an adaptive management process or result as part of one? Were progress reports produced accurately and timely and di they respond to the project's requirements including being part of an adaptive management process? Was the overall project implementation both cost-effective and timely as originally proposed (planned versus actual)?
Specifically, was funding managed efficiently (procurement, disbursement, co-financing) throughout the project lifetime?	Were the accounting and financial systems that were put in place adequate for effective project management and able to support the production of timely financial information? Did the leveraging and realisation of funding, particularly co-financing, happen as planned? Were financial resources utilised efficiently or could this have been improved? Was procurement carried out in an efficient manner?
How efficient have the Partnership arrangements been?	Were partnership arrangements identified in the original design? Were these Partnership arrangements realised through the project? Did the Project catalyse new Partnerships? Are these Partnership arrangements sustainable beyond the project lifetime? How effective were the cooperation and collaboration arrangements?
Was there efficient use of national, regional and/or global capacity?	Was there an appropriate balance between the use of national, regional and international expertise where relevant? Did the project take into account existing national capacities in the Project Design? Was there an effective collaboration between institutions responsible for implementing the Project?
What lessons can be drawn from the design and implementation of this Project in relation to its EFFICIENCY that could be usefully captured or avoided in future projects	How could the project carried out implementation more efficiently (in terms of management structures, and procedures, partnership arrangements, on-the-ground delivery of activities, etc.)?
Sustainability in Project Design	Were sustainability issues integrated into the design and implementation of the project? How were these addressed during Project Implementation
Financial Sustainability	To what extent are project results likely to be dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project results once the GEF assistance ends?
Institutional and Governance Sustainability	Do relevant stakeholders have (or are likely to achieve) an adequate level of "ownership" of results, to have the interest in ensuring that project benefits are maintained?

	Do relevant stakeholders have the necessary technical capacity to ensure that project benefits are maintained? Were laws, policies and frameworks addressed through the project (national, regional, global level) that will address sustainability of key initiatives and objectives? Is there an adequate level of political commitment to continue and build on the Project? Are there any policies or practices in place that could create perverse incentives that could negatively affect the long-term benefits from the Project?
Socio-economic Sustainability	Did the Project contribute to key building blocks for socio-economic sustainability? To what extent are the project results dependent on socio-political factors? Are there adequate market incentives to ensure sustained environmental and economic benefits?
Environmental Sustainability	Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits? Did the Project create any such risks? Are there long-term environmental threats that are related to the objectives and which have not been effectively addressed by the Project or which have emerged since Project Design?
Has there been a logical flow of inputs and activities to outputs, and from outputs to outcomes, and then to the actual impacts of the Project?	Where Inputs, outputs and outcomes of project directly targeted towards reducing environmental stress and/or improved ecological status?
Overall, did the project achieve its anticipated/planned impacts? Why or why not?	Has the project achieved its overall objective in terms of Indicators of stress reduction and improved environmental and socio-economic status related to the overall aims of Ballast Water management?
Has the Project had a catalytic role in A. creating public good, B. being replicable, C. identifying possibilities for scaling-up.	Is there evidence of general public good as a result of the Project's activities? Were project activities and results replicated or scaled-up at the national, regional and/or global level? What was the project's direct contribution to this replication or scaling-up process?
Has the project addressed concerns related to GEEW (Gender Equality and Empowerment of Women) where relevant?	Did the Project Document require the project to address GEEW during Implementation? Is there evidence to support any positive and sustainable GEEW actions having taken place during implementation?
Has the project had any impact on sustainable livelihoods or minority groups (positive or negative)?	Did the Project Document aim to address livelihood issues during Implementation? Is there evidence to support any positive and sustainable activities that have had a positive impact on (or created and threat to) sustainable livelihoods?
Did the Project address safeguards against environmental and/or social impacts from its activities where relevant?	Was a 'Safeguards' assessment undertaken as part of the Project Design?

	Have any threats or impacts to environmental or social welfare been identified during the Project and, if so, how were they addressed?

ANNEX 9: Sustainability Strategy

Strategy for the sustainability of the capacity-building tools and technical cooperation efforts of the GEF-UNDP-IMO GloBallast Partnerships Programme

1 Background

The GEF UNDP IMO GloBallast Partnerships Programme was initiated in 2007 and is focused on national policy and legal and institutional reforms in targeted Lead Partnering Countries (LPCs), with an emphasis on integrated management, to prepare the countries for the implementation of the Ballast Water Management (BWM) Convention and compliance with its requirements at all levels.

The Project is funded under the GEF International Waters portfolio and is being implemented by the United Nations Development Programme (UNDP) and executed by the International Maritime Organization (IMO). A Project Coordination Unit (PCU) was established within the Marine Environment Division (MED) at the IMO headquarters in London.

GloBallast was initially planned as a five-year project, from October 2007 to October 2012. However, given the significant co-funding leveraged and advancements made by the project, the Project Executive Committee agreed to extend the Project until June 2017.

Recognizing that the Project is coming to an official end, it is also noted that the IMO BWM Convention will enter into force in September 2017, rendering this a crucial time for technical support to IMO Member States to assist with implementation of the BWM Convention. It is therefore considered essential that the most valuable assets and contributions (e.g. capacity-building tools and technical cooperation efforts) developed under the GloBallast project framework are sustained beyond the life of the project.

2 Objectives

This Strategy aims to summarize the main capacity-building tools and technical cooperation efforts that have been developed under the Project and to present a framework and suggested/provisional course of action to ensure the future sustainability of these valuable contributions to ballast water management globally. The best practices as related to partnership arrangements, coordination, facilitation, technical support and funding mechanisms, at the national, regional and global levels, will guide the strategic priorities on how to best sustain the efforts of GloBallast.

The general objective of the Strategy is therefore:

- To ensure the sustainability of the relevant GloBallast products and structures to effectively support BWM implementation beyond the life of the GloBallast Project.

Specific strategic objectives include:

I. Provision of centralized guidance on the development and maintenance of mechanisms to facilitate the continuity of the efforts and products of the GloBallast Programme.
II. Reconfirmation of commitments made by Lead Partner Countries (via Focal Points), RCOs and Partner organizations to support the needs of IMO Member States in the implementation of the BWM Convention – collaboration and cooperation.
III. To make available the tools necessary to support the developing capacity needs of countries aiming to implement the BWM Convention.
IV. To continue to support the development of innovative technological solutions to assist BWM implementation.

V. Promotion of the leading role of the Lead Partner Countries within their respective regions in support of regional BWM implementation.

3 Sustainability of Resources

The GloBallast Project is advised by a Global Project Task Force (GPTF), which is comprised of representatives of GEF, UNDP, IMO, the participating countries, the shipping industry and international environmental NGOs. The Executive Committee (GEF, UNDP and IMO representatives) is the governing body of the Project. While these two official groups will cease their functions following the termination of the Project, much of the broad Partnership-based governance structure may be maintained. The commitments made in support of BWM by regional bodies and international organizations (see details listed below) extend beyond their direct involvement in the GloBallast Project. By continuing to work through the global network of partnering organizations, the role of the GloBallast Project may be assimilated into the ongoing partnership framework.

Regional Coordinating Organizations (RCOs) involved in the Project include:

1. Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA)
2. Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC)
3. Regional Marine Pollution Emergency, Information and Training Centre - Caribe (RAC/REMPEITC-Caribe)
4. Permanent Commission for the South Pacific (CPPS)
5. Secretariat of the Pacific Regional Environment Programme (SPREP)
6. Marine Emergency Mutual Aid Centre (MEMAC)

Strategic Partner organizations include:

1. IMarEST
2. World Maritime University (WMU)
3. WWF
4. IW:LEARN
5. European Bank for Reconstruction and Development (EBRD)
6. International Ocean Institute (IOI)
7. CSIR-NIO
8. IEAPM
9. GloBal TestNet

3.1 Capacity building tools

The primary focus of the GloBallast Programme has been to develop capacity to assist IMO Member States to implement the BWM Convention at national and regional levels and, where relevant, to take steps towards its ratification and domestication. Significant contributions have been made through the development of tools, such as training courses and guidance documents, to provide contemporary, practical and best-practice-based assistance. The relevance and value of these tools will continue to increase following the entry into force of the BWM Convention in September 2017. The institutional and technical ability to disseminate, deliver and update the tools and their content is essential to ensure their value is maintained during this important time.

3.1.1 Capacity building training packages

Description

A range of technical training packages have been developed and successfully piloted/delivered during the course of the GloBallast Project. They will remain available at the IMO, requiring the necessary conditions (i.e. institutional arrangements, technical expertise and appropriate funding) to be delivered effectively. These include:

- Introductory Training course,
- Advanced Training course (focus on private sector),
- Compliance Monitoring and Enforcement (CME) Training course,
- Legal Training package,
- Risk Assessment and Port Biological Baseline Surveys (RA+PBBS) Training course.

Mechanisms for continuation

Further support may be available for ongoing BWM capacity development initiatives, including replication of deliveries for the above training packages, which may be considered through the following mechanisms:

- Role of the Integrated Technical Cooperation Programme - ITCP - of the IMO,
- Role of MED Secretariat Staff on Technical Cooperation and BWM,
- Partners to assist with identification of needs and opportunities to support the delivery of national and regional training workshops,
- Integration with related projects or training events (e.g. IAS, Biofouling, Energy Efficiency),

Capacitating National Training Institutes on Ballast Water Management (BWM)

GloBallast Partnerships supported the delivery of a pilot course at an academy/institute of each LPC for training personnel in key aspects of shipboard BWM. The pilot course used all the course materials developed by GloBallast, including teacher and student manuals, presentations, instructions, etc.

After running the pilot course, the academies have taken ownership of the materials and will be able to include the course in their syllabus for future deliveries. This ensures that a training institution is available in the country/region to deliver the course designed by GloBallast Partnerships after the Project terminates, particularly at a time when the entry into force of the BWM Convention is expected to create a significant demand increase.

List of Institutions:

1. Argentina: Escuela Superior de la Prefectura Naval Argentina
2. Bahamas: LJM Maritime Academy
3. Chile: Centro de Instrucción y Capacitación Marítima (CIMAR)
4. Croatia: University of Rijeka. Faculty of Maritime Studies
5. Colombia: Escuela Naval de Cadetes “Almirante Padilla”
6. Egypt: Arab Academy for Science, Technology and Maritime Transport
7. Ghana: Regional Maritime University
8. Jamaica: Centre for Marine Sciences, The University of the West Indies, at Mona, Jamaica
9. Jordan: Aqaba Marine Science Station, University of Jordan
10. Nigeria: Maritime Academy of Nigeria, Oron
11. Panama: Universidad Marítima Internacional de Panamá (UMIP)
12. Trinidad and Tobago: University of Trinidad and Tobago, Faculty of Maritime Studies

3.1.2 Content of the GloBallast website

The website of the GloBallast Programme (globallast.imo.org) has become a well-established and recognized resource in its own right. The content (including publications, Monographs, R&D Forum

proceedings, etc.) and the associated Learning Portal (e-learning course on the operational aspects of the BWM Convention) will remain accessible online, and be maintained by the appropriate institution. The website content, including the Learning portal, has been archived by the IW:LEARN programme, and shall continue to be accessible using the original GloBallast URL. It should be noted however that the archived content will remain static in the current archived format. Further contributions to website content and format, including updating of existing content, may therefore be considered by Partner organizations.

3.2 Technical cooperation efforts

3.2.1 GEF-UNDP-IMO cooperation

The GloBallast Project has managed to leverage considerable value within participating countries and regions, based on the project financing and operating structures. The project, including two phases (2000-2004 and 2007-2017), has developed effective institutional relationships and partnerships that have potential operational value beyond the area of BWM. The GloBallast project therefore provides a model for possible replication (i.e. Glo-X model) towards similarly complex issues and objectives.

Successful replication of the Glo-X model has already been demonstrated through the current GloMEEP Project (Global Maritime Energy Efficiency Project). The GEF Council has also cleared the proposed GloFouling project, which will complement the work accomplished under GloBallast by tackling another vector for marine IAS, namely through ships' hull biofouling.

3.2.2 Pool of international experts on BWM

Through the extensive involvement of Focal Points from LPCs and technical experts registered in the IMO e-roster, GloBallast has effectively created an international network of experts on BWM to support the ongoing process towards implementation of the Convention. The availability of the general knowledge on the international pool of experts is essential for supporting local and international activities and programmes related to BWM. It will therefore be in the best interests of Member States and partner institutions if a centralized and accessible database of this nature is developed and maintained as a communal resource.

3.2.3 R&D Forum on BWM

The IMO-GloBallast R&D Forum is organized every two years usually in collaboration with other Partners (e.g. IMarEST) and sometimes in conjunction with other related events. It has become one of the most important international conferences on BWM, bringing together leading scientific experts, the maritime industry, academia and technology development leaders in the field of ships' ballast water management for a comprehensive overview of this rapidly expanding area of research and development and technology commercialization.

The most effective way forward in ensuring continuity for the R&D Forum may be the development of a MoU between the IMO and an appropriate partner to authorize the transfer and uptake of the roles previously performed by the GloBallast PCU. Following the final GPTF meeting held in March 2017 in Panama, IMarEST showed interest in taking on this role.

3.2.4 International Conference on BWM (ICBWM)

The ICBWM is held every other year as a collaborative arrangement between DHI, the Maritime and Port Authority of Singapore (MPA) and GloBallast. The event highlights and demonstrates the latest progress in management approaches for BWM implementation and has become a core mechanism advancing awareness and technical capacity for BWM implementation. The role of the GloBallast project in ensuring technical and international contributions to the event, as well as administrative support in planning and preparation, may be continued through the identification of a new collaborative partner for

DHI and MPA. This was achieved for the 8th ICBWM conference held in April 2017 (which was organized without support from GloBallast) when DHI and MPA partnered with IMarEST, which took on a coordination role.

3.2.5 Awareness-raising

The GloBallast Project has always supported awareness-raising on the issue of the transfer of marine invasive species through ships' ballast water. The IMO-BBC Award Winning Documentary "Invaders from the Sea" may be aired on national television channels to continue the promotion of the BWM Convention efforts.

Furthermore, it is recommended the proposed new GloFouling project should support the development of a new documentary to continue the awareness efforts connecting with the role of industry with solutions to help solve the problems associated with IAS.

3.2.6 GloBal TestNet

The formation of the Global Ballast Water Test Organizations Network (GloBal TestNet) has been supported by the GloBallast Programme and the Global Industry Alliance (GIA). The GloBal TestNet gathers organizations involved in the generation of data from land-based and/or shipboard testing for the certification of ballast water management systems, under the BWM Convention and relevant Guidelines or other test protocols. It was formally established in 2013 with 19 signatories to a Memorandum of Understanding (the Busan MoU), aims to increase levels of standardization, transparency and openness in testing ballast water management systems. The GloBal TestNet has made significant contributions to the development of the BW treatment technology testing guidelines, and is in the process of applying for consultative status at IMO to be able to continue its influence on the ongoing BWM process.

3.2.7 Lead Partner Countries (LPCs)

National Focal Points (NFPs) and National Project Coordinators (NPC) have been established in each of the LPCs, supported by inter-ministerial/cross-sectoral National Task Forces (NTFs). Numerous activities have been coordinated at national and regional levels, as organized and facilitated by the structures and arrangements put in place within the LPCs to support the programme goals. The LPCs have further committed to sustaining their efforts through their representatives at MEPC and TCC meetings in 2017. It is envisaged that these commitments may be broadened and extended to ensure that LPCs continue to lead BWM activities in their respective regions during the coming important years of BWM implementation. LPCs are further encouraged to continue with the organization of national seminars and activities that support the local dissemination of information, guidance and technical tools. Where relevant, important local events may be broadened in scope to include regional and international interests (e.g. Croatia BWM Conference 2016), and repeated as regular contributions to the global BWM community.

3.2.8 Regional Dimension

The GloBallast helped establish regional BWM strategies that have been adopted in most of the regions where the programme has been operational (2000-2017). In some instances these have taken the form of agreements adopted under the relevant regional conventions, whereas in other cases the regional strategies may require further development and institutionalization. Appropriate mechanisms for the assessment of the current status of such strategies and agreements within their respective regional political frameworks may be explored with a view to providing the necessary support. Additionally, the relevant Port State Control MoU's may be considered as strategic partners in supporting the efforts of the countries.

3.2.9 Maritime Knowledge Centre of IMO

The Maritime Knowledge Centre (MKC) provides collections, information resources and services to support the IMO Secretariat, Member States, representatives and delegates. Its specialized collections comprise the archives of official documents and IMO Publications. The MKC also collects resources covering maritime affairs, shipping and other subjects relevant to the work of the Organization. It has been and will continue to be able to store hard copies of all GloBallast Monographs and technical products for future reference.

3.2.10 Risk Assessment and Decision Support Tool

The GloBallast Project has aimed to support the development of "risk-based decision support systems" for improved implementation of the BWM Convention. In lieu of designing a new system through the use of project resources, the PCU recognized that several systems have already been developed with differing approaches and scales of applicability (e.g. national, regional), and convened an expert workshop in 2016 to provide lessons-learned and recommendations for a collective way forward. The workshop report therefore provides the early stages of a 'blueprint' for a potential centralized web-based system with possible international and regional application. There is significant interest from partner institutions and Member States in taking these developments to further advanced stages to support implementation of risk-based management processes under the Convention. Relevant funding bodies may be targeted for consideration in funding model/demonstration solutions through the development of regional or international systems based on the outcomes of the expert-workshop.

3.2.11 Public-Private Partnerships PPP models

The private sector is recognized as an important stakeholder in all GloBallast activities and has been playing a critical role in addressing ballast water issues, in partnership with the GloBallast. Over the past several years GloBallast was able to develop several private sector engagements, and also demonstrate two different models for public private partnerships with interests in sustaining BWM activities. These include:

i. IMO-EBRD Marine Biosafety Initiative (MBI) - A partnership where GloBallast has agreed to provide all the training materials to conduct training courses and EBRD agreed to provide funds to organize training programmes within their region of concern.

ii. Global Industry Alliance (GIA) - This innovative public-private sector partnership model is the first of its kind, and aims at assisting in creating solutions for addressing the ballast water issues, including new technologies, along with training and capacity-building activities. The GIA model was replicated at national level by Croatia in organizing the First Croatia-GloBallast Global Industry Alliance Conference in 2016, with plans for replication in 2018. The Model has also extended to the GloMEEP project which launched its GIA in June 2017.

The imminent entry into force of the BWM Convention may provide the impetus for further PPP initiatives to be explored and developed, and for these existing models to be further expanded. It is therefore crucial that the function of the GloBallast project in convening and coordinating these partnerships is adequately replaced.

4 Sustainability Strategy

4.1 Ad hoc Advisory Committee

It is suggested that some form of centralized coordination mechanism is needed to continue to provide guidance and some of the functions previously provided by the GloBallast PCU. The interested partners and key stakeholders implicated in supporting the BWM Convention implementation may form an ongoing ad hoc Advisory Committee to provide this role. This ad hoc Committee may seek to meet opportunistically in conjunction with other BWM events, to allow for feedback to Member Parties and ITCP.

4.2 Partnership agreements

For the implementation of specific activities, Partner institutions may be interested in developing collaborative approaches based on shared resources. In some instances it may be preferable for one Partner institution to commit to taking the lead in coordination for an activity, to be supported by others, including RCOs, LPCs and other institutions/NGOs. Where necessary, MoUs or other appropriate agreements may be negotiated and put in place to help clarify the roles of the Partner organizations involved, as well as any concerns regarding technical content or intellectual property.

4.3 Institutional integration

Some of the roles and/or functions of the GloBallast Project and PCU may be integrated with new or ongoing programmes being conducted by other institutions or similar 'sister' projects. Opportunities for assimilation of relevant functions may be reviewed and assessed through the proposed Advisory Committee, and recommendations for effective transfer of responsibilities and available resources may be developed. Functions with international application may be distinguished from those that are relevant at regional or national scales. Appropriate linkages between regional and international bodies may then be formed to ensure consistency.

4.4 Funding arrangements

There was significant funding support for BWM implementation catalyzed through the GloBallast Project beyond that which was provided through the original Project budget. Certainly, the interests of the relevant funding bodies in supporting ongoing and effective BWM is not ending with the closure of the GloBallast project. However, a well-structured strategic approach to the continuity and coordination mechanisms for ongoing BWM support will go a long way in ensuring that funding will continue to be provided for priority activities. It is further suggested that the relevant funding bodies (e.g. GEF, Development Banks) be included on the proposed Advisory Committee to ensure that their interests are integrated at early planning stages.

It is further recommended that a funding and support strategy be developed, which includes a breakdown of potential and existing mechanisms at international, regional and national levels.

4.5 Summary Table

What	Who	How
Continuation of capacity building training packages	All Partner training institutions, mainly IMO ITCP and capacitated training institutes	Replication of courses, Integration of activities in ITCP biennium

Continuation of GloBallast website content	IW:LEARN	Archived and accessible online
Replication of Glo-X Model	GEF-UNDP-IMO	GloMEEP, GloFouling, and more to come.
Database of BWM experts	Partner institution (e.g. IMO)	Online resource (e.g. IMO e-roster)
Continuation of the R&D Forum on BWM	IMarEST	IMarEST-IMO MoU to be developed
ICBWM continuation	HDI, MPA, IMarEST	Partnership agreement
Awareness raising	All Partners	E.g. BBC documentary, GloFouling project
GloBal TestNet support	GloBal TestNet Members, GIA	Consultative status at IMO
Sustained commitments and efforts of LPC's	LPC's	National and regional activities
Strengthening and supporting regional agreements	RCO's, PSC MoU's	Status and needs assessment
Centralization of information and resources	IMO Maritime Knowledge Centre (MKC)	Storage and availability of relevant BWM materials
Advancement of risk assessment and decision support tools	Partner institutions	GloBallast Expert Workshop report and "blueprint"
Public-private partnership model replication	EBRD, GIA, LPC's, others	Replication and expansion of activities and initiatives
Ad hoc Advisory Committee	LPC's, RCO's, Partner institutions	Informal meetings in conjunction with BWM events
Integration of GloBallast project functions	All Partners	Identification of opportunities and resourcing
Funding arrangements	ITCP Fund, GEF, Development banks	Funding and support strategy

ANNEX 10: Management Responses to Evaluation Recommendations

No.	7. RECOMMENDATION	TARGET GROUP	MANAGEMENT RESPONSE
1	The ITCP and the Technical Cooperation Division of IMO now represents the primary vehicle for continued technical assistance in relation to ballast water issues. What is now needed is a more modular and sequential plan and road-map for this support process and less 'one-off' *ad hoc* activities. To achieve this, the Marine Environment Division and ITCP need to collaborate closely so that when a country that has no experience or expertise in developing a BWM strategy seeks help, they can react jointly with a standard work-plan. The RCOs can also be very instrumental in this process by alerting IMO to the regional needs rather than just focusing on national requirements.	IMO	The IMO ITCP biennium plan of activities is prepared hand-in-hand with IMO's Marine Environment and Technical Cooperation divisions to ensure that all strategic needs are addressed and coordinated. The IMO Member States have also the opportunity to fill their Country Maritime Profiles on the IMO online database (GISIS) to request for specific trainings. The IMO also has a network of local regional coordinators (Africa, Caribbean and East Asia) that support the local implementation of the ITCP.
2	IMO needs to adopt a work-plan to transfer the lessons learned through the LPCs and PCs to other countries and thereby generally keep the momentum going for ratification of the Convention, or accession once the Convention has come into force. Then there needs to be a monitoring plan to ensure compliance.	IMO	The GloBallast sustainability strategy has been circulated to LPCs and PCs, while the RCOs will go on with the coordination of IMO ITCP activities on the BWM topic. The Member States will still take part in the IMO MEPC where the IMO BWM Convention is still being discussed. LPCs will continue taking the lead in their regions, sharing their expertise and know-how. The IMO is not in charge of compliance monitoring, the Member States are. But the IMO has produced guidance for Port State Control Officers and training through the ITCP will continue on this topic.
3	Stakeholders felt strongly that an interim moratorium period should be established (once the Convention is in	IMO	The current agreements within IMO community have already

	force) whereby the shipping industry is not financially or legally penalised if the Convention requirements are not precisely met (or are 'construed' to be not precisely met) and sampling results are not used to support criminal actions for a period (e.g. 18-24 months). This could be seen as a 'shake-down' period to iron out any glitches in sampling and treatment processes. This would also serve to boost industry confidence and trust in this Convention which would help to strengthen support and buy-in for GloFouling (and probably GloMEEP also). Presumably this would need to go through the MEPC		taken this into consideration and have given a grace period for ships during when they will not be penalized or sanctioned based on sampling results. Please see MEPC71 decisions.
4	It was proposed by some stakeholders that the World Health Organisation needs to be more of a partner in Ballast Water Management as a number of pathogens are already being identified in ballast water.	IMO	Comment taken and IMO will invite WHO to participate in the global fora on ballast water issues. IMO might also engage the FAO for GloFouling Project.
5	The BBC video production of 'Invaders from the Sea' was praised by all parties and is, indeed, an excellent awareness tool. Consideration should be given now to updating this with the progress of events and with the Convention about to come into force. Careful consideration should be given both to the 'branding' and to the potential audience. It may be worth considering a short 5-minute version for policy-makers?	IMO	Comment understood, a new video on the issue of transfer of invasive aquatic species through ships (via ballast water and biofouling) might be produced under the new GloFouling Project. UNDP has also produced a short video recently.
6	The Risk Assessments and Economic Assessments were geared toward providing a 'counter' defence to the cost of ballast water management implementation in the context of the value of renewable living marine resources that may be lost as well as the threats to industry. However, the PCU and IMO noted that the results of these assessments should ideally have been refined into short but concise Briefing documents targeted at policy-level decision-makers (e.g. Ministers or Directors-General). This can and should still be done through the creation of short, concise Briefing Documents aimed at policy-makers (both for GloBallast and GloFouling as well as GloMEEP if this is not already being done).	IMO	Comment noted – for GloBallast, the Monograph 24 on the compilation of the national economic assessments conducted by the LPCs of the Project has been published and provides a good summary for decision makers.
7	In a similar context, all national studies highlighted the significant risks to the economies and environment of the countries. However, stakeholders felt that, although it was an excellent start, they need A. further research on this and in more detail, in order to drive home the importance of the Ballast Water Management and B. to get this information to where it is most needed at the national policy and decision-making level through short, sharp, concise Briefing documents of a 'brochure' nature for senior	IMO + COUNTRIES	Comment noted and passed to the GloMEEP project and will be taken into consideration for the design of the GloFouling project.

	management and decision-makers both within and outside of Governments.		
8	There is also a need to review and update some of the strategies as some were written long enough ago that they are no longer valid to the current Convention. With the Convention now coming into force, it would make sense for the countries to review them again to see if they are still 'fit-for-purpose'. This would benefit from an independent peer-review process to ensure compatibility and quality, and to ensure that they are in line with any more recent developments in Research and Development. This is important if the implementation of the Convention is to be considered as credible by the shipping industry. As noted above under the review of Outcome 2, It would be a valuable exercise now if a Panel of Experts were to review the various BWM Strategies that were originally created by the countries to see if A. they are still 'fit-for-purpose' as the Convention comes into force and B. How much the Strategies have been adopted/implemented by the countries, and to make recommendations on improvements where necessary.	IMO + COUNTRIES	This is a very valid comment and towards the end of the project, some LPCs already have gone through the process of updating strategies that were drafted at the beginning of the project. LPCs should include this need in their country maritime profile on GISIS and ensure that activities for updating National Strategies are taken into account for the next IMO ITCP biennium.
9	It may be worth considering using the existing RCOs and Task Forces from GloBallast for GloFouling so as to take advantage of these ready-made bodies as well as to ensure their sustainability. IMO is already planning to replicate the Glo-X structure from Global to Regional to national. A strong focus should go on ensuring good multi-sectoral and inter-ministerial representation on the national task forces. Also, the Regional Seas Programmes need to be more closely involved with and through the RCOs which has not happened during GloBallast Partnerships Project despite attempts by the PCU and IMO to organise closer involvement of UNEP and the RSPs. It was noted, however, that the Project Design could have been improved through the inclusion of pre-negotiated and more formal and detailed Terms of Reference for the RCOs at the time of submission/endorsement.	IMO + COUNTRIES	The use of National Task Forces will also depend if the LPCs of GloFouling will be the same as the LPCs of GloBallast. Nevertheless, outreach activities in the GloFouling Project will take advantage of the network already established by GloBallast. With regards to the RCO network, this should be an easier task. Comment noted for the closer involvement of existing regional level stakeholders in future projects.
10	There is an apparent need to ensure better standardisation of monitoring (at port level as a baseline and at ship level as ballast water monitoring itself) as well as a better understanding of the application of the standards for compliance at the port level. The industry needs to have more confidence in the ship monitoring process and that it is both reliable and comparable across all ports and vessels. In this context also, the inspectors and the countries do require more technical training related to compliance and enforcement as the ballast water management process evolves alongside the Convention itself. The	IMO + COUNTRIES	Training on the Compliance Monitoring and Enforcement under the BWM Convention and mainly the 4-stage inspection concept for Port State Control Officers (PSCOs) has been undertaken by the GloBallast Project, and will be followed up by more ITCP training on the topic. The GloBallast CME package included a dedicated module

	Port Baseline work still falls short of what is needed as has been noted by the stakeholders. Further training and further funding support for in-field work and analysis is an important requirement. Each country was required to complete a Maritime Profile which highlighted what the national requirements were in terms of training and other assistance and this should be updated.		on sampling and analysis under IMO Circ.42.
11	The shipping industry deserves some recognition publicly for the important steps it has taken with IMO to bring this Convention into force. Some means of highlighting those ships or companies that are making extra efforts to comply would be a valuable public relations tool and further build confidence and buy-in.	IMO AND SHIPPING INDUSTRY	The Global Industry Alliance (GIA) established under the GloBallast Partnerships – and the new one launched under the GloMEEP Project – gives a unique platform for the private sector to communicate on their proactive efforts towards a more environmentally friendly shipping industry.
12	This has been a 'model project for demonstrating successful interaction and partnering with industry. UNDP should consider opening a dialogue with industry and GEF over the potential for a broader scale and more comprehensive industry interaction project at the level of International Waters. This would inevitably include such partners as IMO and other GloBallast 'family' members but would extend beyond just the shipping industry and reach out to the energy and mining industry as well as fishing and tourism within the umbrella concept of interactive and collaborative ocean governance. The objective of such a project could be to demonstrate effective engagement of industry sectors into the overall aims and targets of the International Waters portfolio, possibly focused initially on LME and ecosystem-based collaborative management and governance.	UNDP	The Global Industry Alliance (GIA) of GloBallast has recently been successfully reused as a model to launch a GIA under the auspices of the GloMEEP project. The GloFouling Project will also look into launching a GIA, and also work with the World Ocean Council (WOC) to increase private sector involvement particularly with a view to include non-shipping industry activities.
13	The Ballast Water Management Infrastructure Investment Guidance prepared on behalf of EBRD should be circulated to all LME projects for their consideration and appropriate action within their regions. This is a valuable set of guidelines that can provide strong support within the Blue Economy arena which is growing fast and which recognises the need for private sector investment in marine ecosystem and marine living resources sustainability.	UNDP	UNDP will ensure this guidance material is shared with the GEF LME portfolio through the IW:LEARN mechanism.
14	UNDP should include a standard format for Quarterly Progress Reports as part of the Project Document Annexes to ensure that format and quality is consistent and to reduce the work-load for Project Managers	UNDP	In fact neither UNDP or GEF have technically required QORs for several years but UNDP/GEF elected to still receive very brief simple text QORs from the project as an efficient mechanism to

			monitor project progress on a more regular basis than annual APR/PIR.
15	IMO and UNDP need to talk with IW:LEARN about creating appropriate Experience Notes from this very successful Project. There are many lessons that can be captured and only some of this have really surfaced during this evaluation.	UNDP + IMO	IW:LEARN has already created some experience notes in the past. Comment well noted and will discuss with IW:LEARN on the opportunities to do more.
16	There may now be a case for seeking funding from GEF and/or other potential donors to support elements of GloBallast and future Convention implementation. There are still a number of outstanding issues identified within this evaluation that donors may wish to consider supporting in order to build on and consolidate this impressive investment project. For example, there is now a wealth of scientific literature and discussion regarding the growing concerns about the impacts of climate change on the potential for invasive species migration and successful colonisation[7] and a number of potential donors might be interested in supporting further work in this area which will undoubtedly impact on the ability of invasive species to colonise from ballast water (and hull-fouling).	UNDP + IMO	The GloFouling Project has been endorsed by the GEF Council in May 2017 and the IMO will develop the Initiation Plan with a view to submit a fully complete Project Document to UNDP. One opportunity might be to request GEF to consider the impact of climate variability on marine bio invasions when they fund the LME or similar projects which has invasive species components.

[7] For an introduction see http://www.mccip.org.uk/media/1391/non-natives-report-from-cambridge-university.pdf