

**Framework Convention
for the Protection of the Marine
Environment of the Caspian Sea**

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18 October 2012

Original: English

**CONFERENCE OF THE PARTIES
Fourth Meeting
Moscow, 10-12 December 2012**

**REGIONAL STRATEGY AND ACTION PLAN TO IMPLEMENT THE BALLAST
WATER MANAGEMENT CONVENTION**

Note by the interim Secretariat

1. Article 9 of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention) calls upon the Contracting Parties “to take measures to prevent, reduce and control pollution of the Caspian Sea from vessels” and instructs them “to co-operate in the development of protocols and agreements to the Convention prescribing agreed measures, procedures and standards to that effect, taking into account relevant international standards”.
2. Article 10 of the Convention calls upon the Contracting Parties “to take all appropriate measures to prevent, (...) reduce and control pollution of the Caspian Sea caused by dumping from vessels (...)”, and to co-operate in the development of protocols to the Convention, prescribing agreed measures, procedures and standards to that effect”.
3. Article 18 of the Convention calls upon the Parties “to co-operate in formulating, elaborating and harmonizing rules, standards, recommended practices and procedures consistent with this Convention and with the account of requirements, commonly used in international practices, in order to prevent, reduce and control pollution of (...) the Caspian Sea”.
4. The implementation of the above mentioned articles includes adequate attention for the control and management of ballast waters from ships, which in some detail is also addressed in the IMO International Convention for the Control and Management of Ships’ Ballast Water and Sediments adopted in London on 13 February 2004.

The IMO Convention will enter into force twelve months after the date on which not less than thirty States, the combined merchant fleets of which constitute not less than thirty-five percent of the gross tonnage of the world’s merchant shipping, have either signed it without reservation as to ratification, acceptance or approval, or have deposited the requisite instrument of ratification, acceptance, approval or accession in accordance with Article 17 of the Convention. As of 1 October 2012, 36 states among which the I.R. of Iran (6 April 2011) and Russian Federation (24 May 2012) have ratified or acceded to the Convention, the combined merchant

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fleets of which constitute approximately 29.07 % of the gross tonnage of the world's merchant fleet.

5. Supported by the IMO Technical Cooperation Program (ITCP) a Regional Strategy and Action Plan on Ballast Water Management for the Caspian Sea was developed and reviewed at a Workshop, organized by IMO in Baku, Republic of Azerbaijan, from 9 to 11 July 2012, to which the Tehran Convention interim Secretariat contributed. The Participants - representatives of the Caspian littoral States nominated by the National Focal Points of the Tehran Convention and the Maritime Authorities - reached agreement on the text of the Strategy and recommended that it be submitted to COP4 “with the hope that this collective effort can form part of the tools to implement the Convention and its Protocols”.

6. The development of the regional strategy has been preceded by corresponding preparatory activities at the national level, including the development of national BWM strategies in Azerbaijan, Kazakhstan, Russian Federation and Turkmenistan. The Islamic Republic of Iran was one of the Pilot Countries in the first phase of the GEF-UNDP-IMO GloBallast Project, and has thus gained a wealth of experiences on this topic.

7. Attached to this document is the letter dated 12 September 2012 from the IMO Representative of the Marine Environment Division (Annex I), the draft Regional Strategy and Action Plan on Ballast Water Management for the Caspian Sea (Annex II), as well as the list of Participants to the Regional Workshop to Develop a Regional Strategy and Action Plan to implement the Ballast Water Management (BWM) Convention (Annex III), at which the text of the Strategy was reviewed and agreed.

8. The Conference of the Parties may wish to:

- Express their gratitude to IMO for co-organizing and supporting the Regional Workshop to Develop a Regional Strategy and Action Plan to implement the Ballast Water Management (BWM) Convention;
- Welcome the Strategy and Action Plan; and
- Request the Contracting Parties, assisted by IMO and the interim Secretariat, to ensure that its implementation is integrated in the implementation of the Strategic (Regional) Convention Action Plan and the National Convention Action Plans, as well as in the reporting thereon.

ANNEX I

ORGANISATION
MARIITIME
INTERNATIONALE



INTERNATIONAL
MARITIME
ORGANIZATION

ORGANIZACI3N
MARITIMA
INTERNACIONAL

12 September 2012

Ref: JMa/ml

Mr. Jan Dusík
Acting Director and Regional Representative
UNEP Regional Office for Europe
International Environment House
11 - 13, Chemin des Anémones
CH-1219 Châtelaine, Geneva
Switzerland

Dear Mr. Dusík,

Regional Strategy and Action Plan on Ballast Water Management for the Caspian Sea

Please find attached the Draft Regional Strategy and Action Plan on Ballast Water Management for the Caspian Sea, in both English and Russian versions. The Strategy, which was developed as a joint initiative by IMO, the CaspEco Project and the Tehran Convention Interim Secretariat, was drafted as part of an activity under the IMO Integrated Technical Cooperation Programme (ITCP). The text was developed by a consultant, and discussed and agreed on during a three-day workshop in Baku, Azerbaijan, from 6 to 9 July 2012, with representatives from each of the Caspian Sea Littoral States. The participants were nominated by the Maritime Authorities of the respective countries.

In accordance with the agreement by the meeting in Baku, we are hereby forwarding this document to the Tehran Convention Interim Secretariat, requesting that it be submitted to the next Conference of Parties to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, with the hope that this collective effort can form part of the tools to implement the Convention and its Protocols, with respect to the transfer of harmful aquatic organisms and pathogens through ships' ballast water and sediments.

In this process, we would like to stress that since the 2004 IMO Ballast Water Management Convention is a treaty regulating shipping-related activities, it is important that the Maritime Administration of each State is consulted in the process of approving and implementing the Regional Strategy. In the process leading up to its possible inclusion in the framework of the Tehran Convention, please ensure that the Maritime Administration is included in the discussion of this topic.

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As always, we look forward to a continued collaboration on this and many other topics, and I would like to take this opportunity to assure you of IMO's continued intention to support the Caspian Sea Littoral States in their implementation of IMO instruments, through the IMO Integrated Technical Cooperation Programme. Also please let us know if the presence of a GloBallast/IMO representative in the COP will be of any help during the deliberation of the Strategy document.

Yours sincerely,



Jose Matheickal
Head, Technical Implementation and Major Projects
Marine Environment Division

Encl.

1. Draft Regional Strategy and Action Plan

ANNEX II

FINAL DRAFT CASPIAN STRATEGY ON SHIPS' BALLAST WATER MANAGEMENT AND INVASIVE SPECIES

1. The present Strategy takes into account all relevant international and regional instruments and mechanisms, as well as all relevant Caspian action plans, policies and decisions, including obligations of the Contracting Parties to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention), related to the implementation of the ecosystem approach adopted under the Tehran Convention and its protocols (adopted at their Meeting in Tehran in November 2003)

2. The Caspian Sea herewith refers to the Caspian Sea area. The Caspian sea is the largest inland body of water located in Asia (47°07' and 36°33' north latitude and 46°43' and 54°50' east longitude). The Caspian Sea has characteristics common to both seas and lakes, its characteristic as a sea is explained by the size of area and the volume of water, strong storm condition, specific hydrological and hydrochemical regime, etc. The Caspian Sea is isolated from the world's oceans with a distance of 1000 km. It covers approximately 45% of the total water volume of the world's lakes. The size of the Caspian Sea is 380.000 km². The length (perimeter) of overall shore line is 6380 km. The longest part is 1205 km, the width is 554 km, the deepest part is 1025 m. The level of the Caspian Sea is 28 m below the ocean surface. The volume of sea water is 4 times bigger than volume of the Baltic Sea. The Caspian Littoral States are: the Republic of Azerbaijan, the Islamic Republic of Iran, the Republic of Kazakhstan, the Russian Federation and Turkmenistan.

General objective

3. The general objective of the present Strategy is to establish the framework for a regional harmonised approach in the Caspian area on ships' ballast water control and management which is consistent with the requirements and standards of the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention), as outlined in its Article 13.3.

Introduction

4. Invasive alien species have serious economic, environmental and human health impacts and are now recognized as one of the greatest threats to biodiversity globally. In marine and coastal environments, invasive species have been identified as one of the four greatest threats to the world's oceans. Ships' ballast water is of particular concern as a vector of introduction of invasive alien species in the Caspian Sea because of the large quantities of ballast water coming from different marine environments mostly around Europe being discharged at Caspian ports. Ballast sediments are also of concern, as they provide a substrate for a variety of marine species, e.g. dinoflagellates.

5. The 2004 BWM Convention provides a critically needed set of management tools to address the issue and calls for regional cooperation and harmonization of policies, to attempt solving this transboundary marine environmental issue. Although the BWM Convention has not yet entered into force, the national process of ratification is underway in many countries. Meanwhile, voluntary measures complying with the requirements of the Convention are needed in order to minimize the introduction of harmful aquatic organisms and pathogens in the Caspian Sea.

6. The present Strategy is composed of eight Strategic Priorities, an Action Plan and Workplan/Timetable for its implementation.

Strategic Priority 1. Support international instruments developed to minimize the introduction of harmful aquatic organisms and pathogens in the Caspian Sea

7. Growing recognition of the impacts of invasive species has led to a widespread response to the issue, in the form of legal instruments as well as programmes aimed at developing practical, technical solutions. The Convention on Biological Diversity, 1992, (CBD) provides the basis for measures to protect biodiversity against invasive alien species (Article 8 h) and comprehensive Guiding Principles in this field have been adopted under this Convention in 2002¹. Principles of precaution and "polluter/user pays" are the basic when dealing with the invasive species problem.

8. The International Maritime Organization (IMO), its member States and the maritime industry have been working on the issue of ships' ballast water mediated species introductions for more than twenty years, initially developing voluntary guidelines and then developing a legally binding international regime to meet the new challenges posed by the problem. In February 2004, these global efforts culminated with the adoption of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention). The Convention sets out strict treatment standards for ballast water discharges, which, when in force, will apply to different ships at different times depending on their construction date and their ballast water capacities. Additionally, the Convention provides guidance for the type approval of ballast water treatment systems and identifies detailed procedures to ensure that the environmental toxicity of ballast water is evaluated and minimized, resulting in safe discharges of treated ballast water. This is especially important when systems use active substances.

- **[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States] support the work for the minimization of the introduction of harmful aquatic organisms and pathogens being carried out by the relevant organisations and forums, particularly the work of the International Maritime Organisation and have intentions to take all appropriate actions toward the ratification of the BWM Convention for its entry into force as soon as possible.**

Strategic Priority 2. Maintain capacity-building activities and initiatives in the Caspian region.

9. The capacity building efforts in the Caspian area are mainly fulfilled by the Caspian Environment Programme with the help of IMO and the GloBallast Programme. A number of important activities and initiatives are being undertaken in the Caspian region, which significantly helps develop and strengthen the expertise within the region and the capacity of the Caspian coastal States in the field of ballast water management.

- **[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States] stress the need to continue efforts made in the region to enhance capacity building, knowledge transfer and training of personnel and to involve relevant international and regional co-operation mechanisms, non-governmental organisations and agencies for the continuation of the process initiated.**

Strategic Priority 3 Develop advanced knowledge on the environmental condition of the Caspian Sea and ship mediated introductions of harmful invasive species

10. The development and updating of knowledge in the field of ships' mediated introduction of harmful invasive species in the Caspian Sea is fundamental in order to have a sound scientific, technical and legal basis as a solid basis for management measures. Significant progress has been made to better understand the relation between maritime transport and invasive alien species introductions in the marine environment of the Caspian area. Biodiversity impacts of species introductions and maritime traffic trends in the Caspian Sea in the region

¹ The Conference of the parties to the Convention on Biological Diversity adopted Guiding Principles for the Implementation of Article 8 (h). (COP 6 Decision VI/23, The Hague, 16-19 April 2002).

have been identified and are outlined below.

11. **Research has shown that the Caspian marine ecosystems and resources have been and continue to be severely compromised by invasive species**, and remain at high risk of further invasion as maritime traffic escalates. It is reported² 58 alien species in the Caspian Sea [similar information presented by other authors – Zarbalieva et al, other research of Azerbaijan Institute of Fishing Industry, research results under the CaspEco Programme³]. Most of them are well established in the new environment. Some of them were introduced to this area in the 1930s intentionally, with a purpose of industrial fishing and seafood production.

12. It was noticed that some of these invasions had arrived with ships' ballast water, mainly from the Mediterranean through the Black and Azov seas. Ballast water has been implicated in many serious invasions of the region including the Comb Jelly (*Mnemiopsis leidyi*), which has led to fisheries collapse in the Black and Caspian Seas. According to the modern research, the population of *Mnemiopsis leidyi* is still increasing⁴. It could be also noticed that while the introduction of invasive alien species is well documented in certain countries, there are important information gaps in certain areas of the Caspian Sea.

13. **The Caspian Sea is a major recipient of ballast water.** In 2006 it was noticed that 81.3% of the total quantity of moved ballast water, was moved from the Black and Azov seas to the Caspian Sea and only 10.4% - from the Caspian to the Black Sea and Azov. The remaining 8.3% are as follows: 4.1% moved to the Caspian Sea from the Baltic Sea and 4.2% - from the Caspian Sea to the Baltic Sea (Hillard – 2007).

14. Overall vessel activity within the Caspian area has been rising steadily over the past 10 years and is projected to increase further. The volume of ballast water, coming to the Caspian Sea also increased due to increasing of export of goods. The age of most ships is close to 30 years and facing the end of their commercial life. The ballast water movements identified by the April-September 2006 reporting exercise amounted to a total of 328,800 tonnes.

15. **Intra-Caspian traffic.** Seaborne trade between Caspian littoral States plays an important role in the total Caspian littoral States' trade. It is affected by a big difference in water salinity in the north (0.01PSU) and south (13PSU) parts of the sea and by small depths in the north. The local trade in the Caspian Sea is not so important in terms of the invasive species problem, as the trade between the Caspian Sea and Black, Azov and Baltic Seas, however it should be taken into account.

16. **The Caspian Sea is a big loading centre for oil and oil products.** Volumes are quite stable within last years and seem to remain the same in the nearest future. However, exports also include ore, grain and different kinds of metal. The traffic to/from the Caspian Sea is limited by the abilities of Volgo-Don canal, which is opened about 211 days per year with maximum cargo traffic 16.5 million tons during this period. In 2006 the total volume of cargoes passed through Volgo-Don river system was 8.053 million tons (4.137 million tons oil products); in 2009 this figure increased up to 13.2 million tons (16% more, than in 2008). It is still possible to increase cargo traffic (and ballast water as well) to/from the Caspian Sea.

17. The efforts initiated to compile relevant data and enhance the knowledge on the above issues are to be acknowledged, however, these efforts need to be strengthened with comprehensive species inventories, data on species present in ports and data related to maritime traffic in the region, as well as relevant oceanographic data. The compilation of comprehensive species inventories for individual ports plays a significant role in ballast water management. For a

² Tamara Shyganova. Invasive species in the ecosystems of southern internal seas of Eurasia. Moscow, 2009.

³ Reports and research results CaspEco are available at: www.caspianenvironment.org

⁴ Tamara Shyganova. Review of the status of invasive species with special focus on the most invasive species *Mnemiopsis leidyi* and their effects on the Caspian ecosystem. 2012.

port to effectively manage the ballast water associated with its shipping movements, data must be available and complete from the local port as well as from the source ports for the ballast water being received. It is important that the methods and approaches used to compile a baseline list of species within a port are standardised among countries. Port Biological Baseline Surveys (PBBS) are in this regard an important tool for knowledge management.

- [The Contracting Parties] [The Caspian Sea Littoral States] promote, individually or through regional co-operation, research and development programmes in the field of invasive alien species and ships' ballast water management, as means to enhance knowledge and help setting scientific grounds on which best practices on controlling the transfer of invasive aquatic species can be based. Clearing house mechanism to be established for sharing the results of such research and development programmes. The Contracting Parties also agree that results of such scientific work should be made available to all interested public.

Strategic Priority 4. Use risk assessment as a reliable tool to assist in ballast water management decision-making and in compliance, monitoring and enforcement procedures

18. **Risk assessment and ballast water management.** Risk assessment can be helpful in ensuring that the provisions of the BWM Convention are applied in a consistent manner, based on scientifically robust groundwork. In particular, the IMO has developed Guidelines for the implementation of the BWM Convention under which risk assessment is needed. These Guidelines are to be used while carrying out risk assessment when a Party, within waters under its jurisdiction, is granting exemptions to ships (Guidelines for Risk Assessment under Regulation A4 of the BWM Convention (G7)).

19. Risk assessment is also essential to have a sound knowledge of the overall risks for introduction of alien invasive species associated with the maritime traffic in the Caspian region. When resources are limited, management actions such as compliance, monitoring and enforcement (CME) may be prioritized according to the higher risk areas or vessels.

20. **Biological invasion of ports.** Major shipping ports are often the first places where invasive aquatic species are introduced and become established. Port Biological Baseline Surveys (PBBS) are used to develop a baseline list of species – both native and non-native – that are present in a shipping port. Subsequently it is necessary to continue existing and establish new (when necessary) long-term monitoring regimes to continue building an information base in this field and detect any new invasions. This data can be used to communicate risks to other shipping ports or countries, as appropriate, and provide an essential reference point for management of non-native species. As they target marine pests, PBBS can also help raise awareness of marine pest issues within the region. Most importantly, they allow any existing introductions to be recorded, tracked, and managed.

21. **Ports at high risk of biologic invasion.** Some Caspian ports are more at risk of biological invasion as they are ports receiving greater volumes of ballast water originating from ports located outside the Caspian Sea. These ports are the following: Astrakhan, Makhachkala, Baku, Sanghacal Oil Terminal, Govsan, Aktau (Bautino), Amirabad, Kuryk, Turkmenbashi, Ekrem, Aladzha, Bandar Anzali, Bandar Nowshahr. Also – there are many particular sensitive areas, such as Gizilaghac State Nature Reserve, Shirvan and Absheron National Park, Minor Gizilaghac, Kura estuary and Bandovan State Nature Reserve, Astrakhan State natural reserve, Dagestan State natural reserve, Agrakhan and Samur Federal State reserves, Khazar State natural reserve, North-East Caspian area, touristic area Avaza, Volga estuary, protected areas and national parks Miankaleh, Anzali, Gomishan, Bojagh.

In addition, it should be noted that once a harmful species is introduced in one port located in the Caspian Sea, there is a risk of secondary introduction to other ports located within the region.

In fact, the whole area of the Caspian Sea is particularly sensitive to the potential invasions, therefore measures taken should be adequate to the potential risk.

- **[The Contracting Parties] [The Caspian Sea Littoral States] consider risk assessments at national or regional level, as an appropriate tool to guide on ballast water management measures and are committed to establish surveys and monitoring programmes including reporting and alert mechanisms.**
- **Parties agree that ballast water exchange is not an option for the Caspian area due to its nature and particular sensitivity to invasions [(agreed by consensus on Regional Workshops in Baku – 2007, 2012)]**

Strategic Priority 5. Decide upon voluntary regional arrangements in the Caspian area and ensure national strategies are in line with these

22. Given the transboundary nature of the invasive alien species issue, it must be recognized that individual countries cannot effectively address this concern on their own. A harmonized regional ballast water management regime has to be agreed upon by the Caspian coastal States, which takes into account the maritime traffic lanes in the region and the origin and distribution of ballast water in the ports of the region, as well as the particular geographical constraints of the area and associated scientific and oceanographic data.

23. As the BWM Convention is not yet in force, voluntary measures are called for in order to address the ships' ballast water mediated introduction of invasive alien species in the Caspian Sea. Such measures should include at least BWM procedures on board of the ships, ships' certification or some other way of ensuring compliance by Flag Administrations (or appointed Classification Societies) and establishing of reception facilities for sediments according to the BWM Convention. [In addition, harmonised procedures incorporated in a compliance monitoring and enforcement (CME) system should be implemented by all countries of the region.] National strategies established by Caspian coastal States should take into account and be consistent with the policy and arrangements agreed upon at regional level. In case of implementation of any additional measures, the Contracting Party should conduct consultations with the other Parties beforehand.

- **[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States] work collaboratively to adopt regional voluntary arrangements concerning ballast water management in the Caspian region, consistent with the requirements and standards set in the BWM Convention.**

Strategic Priority 6. Consider other regional seas' strategies and initiatives

24. Harmonization of approaches to ballast water management across regional seas is essential to help achieve the goals of the BWM Convention. Communication and alignment with neighbouring regions and their BWM structures (e.g. Mediterranean Strategy and Action Plan, the Black Sea Strategy) is needed to ensure consistency between the regimes, and also to promote sharing of information between these interlinked marine regions. A dialogue should also be established with other relevant regional seas Secretariats such as the Black Sea Commission, the Helsinki Commission (HELCOM) for the Baltic Sea, which developed a roadmap towards a harmonised implementation of the IMO BWM Convention.

- **[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States] are committed to enhance and maintain cooperation with the neighbouring regions of the Caspian Sea and with other relevant regional agreements in order to ensure that the measures adopted are consistent with**

other ballast water management regional arrangements.

Strategic Priority 7. Keep the Strategy and Action plan under review and assess their implementation progress

25. The Strategy and Action Plan should be subject to periodic review to take into account emerging issues, outcomes of research and development (R&D) activities and experience gained from its operation and implementation.

26. Periodic gatherings of representatives of the regional co-ordinating mechanism and Secretariats should be arranged to assess progress with implementation of the various regional strategies and arrangements and facilitate reaching a harmonised approach at the global level.

- **[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States] call for regular meetings with the purpose of reviewing and evaluating the ongoing relevance of the Strategy, and overall effectiveness of activities carried out under the Action Plan, and that the work accomplished in the various regional seas regarding the management of ballast water is on the agenda of meetings and forums gathering the various regional Secretariats and agreements.**

Strategic Priority 8. Work on the identification of adequate resources to implement activities under the Strategy and Action Plan

27. The identification and securing of adequate resources for implementing the Strategy and Action Plan should be investigated from various sources, including IMO, CEP⁵ and other regional activity centres, regional and international shipping and port industries, bilateral and multilateral donors and technical cooperation programmes.

- **[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States] long-term objective is to ensure the sustainability and continuity of activities from self-financing sources within the region and available international sources.**

⁵ CEP – Caspian Environmental Programme; the lifetime of the CEP is limited and this Programme is expected to terminate this year, therefore another body should be nominated to fulfill duties of CEP mentioned in the present document.

**Final draft Action Plan for the Implementation of the Regional Strategy
on Ships' Ballast Water Management**

The present Action Plan identifies eight main measures to be taken at regional level or national level in accordance with the Strategic Priorities, and include a Roadmap/ timetable for their implementation (**Annex I**).

Action 1. Ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention)

The urgent ratification of the BWM Convention is called for in order that, when it enters into force, the treatment standards for ballast water discharges become applicable to ships. To facilitate the process at national level, national policy initiatives preparing the ground and leading to ratification should be undertaken.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to form a national policy working group to lead the process towards the ratification of the BWM Convention;
- b) to support the rapid implementation of the IMO Ballast Water Management Convention by ratifying the Convention by Caspian Countries;
- c) to designate a Lead Agency - with central government responsibility for coordinating the national response to the issue and to communicate this to CEP¹ and IMO;
- d) to form a National Task Force (NTF) that is inter-ministerial and cross-sectoral in membership, including the government administrations for: maritime, environment, fisheries/marine resources, health/quarantine finance, plus marine science community, port authorities, the shipping industry and other main industries (e.g. bulk exporters), fisheries, aquaculture and coastal tourism industries, environmental NGOs;
- e) to draft the instrument of ratification for adoption through the proper channels with their respective Government system; and
- f) to develop national legislation including sanctions for violators, which will give effect to the BWM Convention once ratified, as well as secondary regulations and technical arrangements for its enforcement.

Action 2. Adopt harmonised arrangements for ballast water management in the Caspian region

The harmonized arrangements are based on the relevant components and requirements of the BWM Convention. Until such a time as the Convention has entered into force, the arrangements should remain an interim voluntary instrument. This does not prejudice the right of any Contracting Party to determine special requirements in certain areas under their jurisdiction, in conformity with international law.

¹ CEP – Caspian Environmental Programme; the lifetime of the CEP is limited and this Programme is expected to terminate this year, therefore another body should be nominated to fulfill duties of CEP mentioned in the present document. The participants of the Seminar recommend to continue the work of CEP, as the programme, which has wide positive experience in this field.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to adopt as soon as possible harmonized voluntary arrangements for ballast water management in the Caspian region (**Annex II**);
- b) in case of necessity – to develop national legislation enabling/mandating BW treatment, co-ordinating with other invasive species management and control programmes;
- c) to select and develop a regional process for invasive species management, control and minimising risk of new invasions in the Caspian area; and
- d) to notify all interested parties of the adoption of harmonized voluntary arrangements for ballast water management in the Caspian Sea through notices to shipping and instructions to surveyors/inspectors.

Action 3 Establish a solid compliance Monitoring and Enforcement (CME) system in the Caspian region

In association with the development and implementation of the harmonized regional ballast water management regime, a generic compliance and monitoring system (CME) needs to be developed to ensure compliance with the measures proposed within the regime. The CME system should incorporate the following:

1. requirement for ships to collect and record information about their BWM practices (i.e. uptake, management en route and discharge);
2. means for ships to transmit this information to the Port States' BWM regulatory authority, and to subsequently receive directions from them;
3. provision for examination/auditing of the ships' official log books or other official records to ascertain compliance with the BWM requirements of the Port State;
4. ability by the appropriate authority to obtain ballast water samples and carry out any necessary testing;
5. legal provision for enforcement measures to be applied for non-compliance with the required BWM requirements, and provisions for applying sanctions to violations;
6. effective communication arrangements on a regional level to ensure proper tracking of violations and exchange of experience during the application of the CME system on a national level; and
7. requirement for ships to obtain Certificates on Ballast Water Management or Documents of Compliance, implement BWM certification system.

The proposed CME system for the region is attached at **Annex III**.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to adapt their existing Port State Control & CME systems to integrate the harmonized BWM CME procedures;
- b) to request arriving ships to submit reporting forms (IMO template);
- c) to require ships flying country's flag or calling at country's ports to carry and implement a shipboard ballast water management plan (in accordance with IMO Convention);
- d) to establish and maintain up to-date a regional communication system possibly within a clearing house mechanism (CHM), to allow exchange of experience and tracking of violations; and
- e) Carry out a Regional BW Risk Assessment to identify particularly vulnerable ports and to optimise compliance monitoring and enforcement.

Action 4. Establish a survey, biological monitoring and risk assessment system for Caspian ports

The development of a uniform regional biological monitoring system for Caspian ports is crucial to understanding the nature of what is being managed, and supporting the methods through which the management is implemented. This system should be composed of the following elements:

- biological, physical, chemical data on port environments;
- Review of the best practices, existing literature and approaches, in order to agree on common approaches/protocols;
- biological data requirements for proposed risk assessment and management measure (non-indigenous species, harmful species, and pathogens);
- long-term monitoring procedures (parameters, frequency);
- Review of the existing monitoring programmes, if any, to see if these meet common approaches/protocols;
- Preparation of common implementation guidelines on Port Biological Baseline Surveys and Monitoring.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to develop a regionally standardised biological sampling and monitoring protocol for use of Contracting Parties in building the necessary biological and environmental databases to support the IAS management objectives;
- b) to collaborate, on biological survey and monitoring activities, including to promote and ensure sharing of technical capacity, resources and results;
- c) to seek institutional support at the national level to conduct port biological surveys and plans for monitoring, as part of their national strategy for ballast water and IAS management;
- d) to carry out detailed risk assessments for high risk ports identified in the Regional Strategy;
- e) to conduct biological baseline surveys/monitoring in ports, including training for port baseline biological surveys;
- f) based on the CEP BW Study and 2012 Regional Workshop recommendations, further undertake a national review of the BW status, existing arrangements, economic implications etc. in order to help drafting a national policy and a ballast water management strategy and to communicate this national strategy to CEP and IMO;
- g) to adapt and use the regional CHM for sharing of data related to port surveys and ongoing biological monitoring;
- h) depending on the outcomes of national discussions and based on a regional consensus, request CEP to undertake a detailed economic and technical feasibility of the most promising BW Management options that were identified by the Regional workshop, including a comparative evaluation of a centralized management approach (e.g. reception facility / centralized facility to provide treatment chemicals etc.) and

decentralized, shipboard ballast water treatment by individual ships. The study to include aspects of compliance monitoring and enforcement; and

- i) that a regional-level risk assessment should be produced based on the information made available through biological surveys, as well as the shipping movement and ballast water discharge databases.

Action 5. Enhance expertise; facilitate knowledge transfer and capacity building in the Caspian region

Given the absence of national legislation and technical initiatives related to ballast water management in several Caspian States, an effective Capacity Building programme should be established to assist in carrying out activities which will assist in implementing the Strategy and Action Plan. Capacity building activities should cover the following:

- identification of National Lead Agencies and relevant stakeholders for ballast water issues and formation of cross-sector / inter-ministerial working groups and committees;
- communication and awareness raising activities;
- port biota baseline surveys, monitoring and ballast water risk assessment;
- research and development projects;
- drafting of national ballast water legislation and regulations;
- compliance monitoring and enforcement;
- developing national ballast water management strategies and action plans; and
- developing self-financing mechanisms.

Training activities should be organized both at regional level. In addition, these training activities should be carried out using the "Train the Trainer approach" where appropriate and used by countries to replicate these training activities at national level.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) in parallel to the national discussions, implement activities for national and regional level capacity building (institutional + technical + scientific) to address the BW issue through activities such as national / regional training programmes on various aspects of BW management;
- b) to seek and secure support, individually or through the Secretariat of the Tehran Convention [CEP], from the IMO Technical Cooperation Division (TCD), or other international organizations for national or regional training courses and other capacity-building actions in support of activities of the Action Plan;
- c) to provide ships' crews with training in ballast water issues (including national maritime training academies);
- d) to develop a national / regional roster of specialists experts to contribute to the technical discussions and studies;
- e) to disseminate protocols of actions and tools for standardization of technical approaches that could be used to conduct regional and national activities;
- f) to conduct and support research and development of effective ballast water management measures considering the unique local situations;

- g) that countries with specific expertise on ballast water management related activities help organize national or regional training sessions; and
- h) to replicate such training on a national level through the establishment of a national training programme on ballast water management activities.

Action 6. Enhance public awareness on ships' ballast water and invasive aquatic species issues

With a view to alert general and targeted public to the risks associated with introducing non-indigenous marine species in the marine environment, and in this way add to the efforts towards preventing and controlling the introduction of invasive species into the Caspian Sea, coastal States and the maritime industry should involve themselves in endeavors to raise knowledge and awareness on the subject. General or specific awareness materials, according to the type of public targeted, are to be used when they exist, or be developed, preferably in the local language of their respective countries. Awareness materials already prepared by IMO-Globallast are available for download from its website² including brochures, posters and other educational documents and tools. Where possible, collaborative partnerships will be forged between countries, and with NGO's and other public interest groups to aid in organizing targeted public awareness campaigns.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to use IMO Globallast Public awareness materials and translated these to local languages for dissemination at national level (in particular – national broadcasting of BBC documentary “Invaders from the Sea”);
- b) to carry out national seminars and workshops to raise awareness among the various stakeholders involved; and
- c) to develop local case studies that may be used effectively for awareness and leveraging support within the Caspian region and it's sub-regions.

Action 7. Set-up a web-based Caspian mechanism for exchanging information

To facilitate information exchange related to ballast water management issues among the Contracting Parties, an information exchange network is considered necessary in the Caspian region. This network will facilitate communications with and between countries, as well as function as a clearing house mechanism (CHM) for data and ballast water management related information within the region. Request [Secretariat of Tehran Convention] [CEP] to make proper arrangements.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to establish a web based Regional Information System;
- b) to explore possible options and functionalities of the system and decide upon the body responsible for coordinating the development of the web-based Regional Information System;

² <http://globallasl.imo.org/index.asp?page=AwarenessMaterials.htm&menu=true>

- c) to set-up a Consulting Council, working in on-line mode, for this project; and
- d) to explore possible options and decide upon the body responsible for hosting and maintaining the web-based Regional Information System.

Action 8. Incorporate the Action Plan evaluation within the Tehran Convention reporting system and procedure

The Action Plan is subject to periodic review to accommodate any developments on ballast water management at the regional or global level and adjusted / updated accordingly. The implementation of the Action Plan should be carried out under the coordination of CEP as a continuation of the present efforts of the Centre devoted to enhance expertise in the region on ballast water management issues. In addition, actions taken on a national level should be evaluated periodically under the Tehran Convention to determine their effectiveness.

[The Contracting Parties to the Tehran Convention] [The Caspian Sea Littoral States], agree

- a) to approve the Caspian Strategy and Action Plan for Ballast Water Management to guide the National Policies and regulatory framework. Also form a Regional Task Force (RTF) to support implementation of Regional Strategy;
- b) to mandate [CEP] to coordinate and assist with the implementation of the Action Plan in the region;
- c) to propose to incorporate the main activities of the Regional Road Map (identified in the Regional Workshop-2012) into the activity of the Secretariat of the Tehran Convention to link the Caspian region efforts to Baltic and Black Sea countries' regional efforts = intra-regional cooperation;
- d) to develop a Regional Communication and Outreach plan as well as a Resource Mobilization Plan;
- e) to add specific language to the Biodiversity Protocol of the Tehran Convention to support invasive species control actions;
- f) that [CEP] will inform its meetings of Focal Points, which take place every two years, on the status of implementation of the Action Plan, for subsequent transmission to the Ordinary Meetings of the Contracting Parties to the Tehran Convention;
- g) to provide [CEP] with the relevant information on national-based activities with the purpose of reviewing and evaluating the ongoing relevance and overall effectiveness of activities carried out under the Action Plan; and
- h) after completing a detailed technical and economic feasibility study, undertake a Regional Donor Conference to identify potential donors / banks for source of grant/loan financing.

Annex I
RECOMMENDATIONS FOR ROAD MAP ACTIVITIES

	NEAR FUTURE ACTIONS (2012-2014)	TASKS / RESPONSIBILITIES
1	Countries to designate a Lead Agency which has central responsibility within their government for co-ordinating the national response to the ballast water issue and communicating on this to CEP and IMO.	[CEP] to communicate to the Countries to initiate the designation of Lead Agency process and maintain the list of Lead Agencies and their Contact Points.
2	Parties to form a <i>National Task Force</i> (NTF) that has inter-ministerial and cross-sectoral membership, including government administrations for Maritime Transport, Environment, Fisheries/Marine Resources, Health/Quarantine and Finance, plus representatives of the marine science community, Port Authorities, the shipping industry, exporters and other industries, fishery, aquaculture and coastal tourism industries, and environmental NGOs.	[CEP] to disseminate the guidelines to Lead Agencies and assist the countries during the process of NTF formation, as appropriate
3	Based on the CTP BWM Study and Baku Workshop-2007 and 2012 recommendations, NTF to further undertake a national review of the existing arrangements and assess the implications of ballast water management options identified and prepare a national position on the preferred ballast water management options. Communicate the national position to [CEP].	NTF to Conduct the Review and communicate to [CEP] [CEP] to consolidate the national positions and circulate the output to the Lead Agencies with the aim to agree on a Regional Policy Document on Ballast Water Management Options.
4	In parallel support the ratification and the rapid implementation of the IMO Ballast Water Management Convention by the Caspian Sea Littoral Countries	IMO can be consulted for assistance during the consolidation process Parties fulfilling preparation to ratification, requesting assistance from IMO if necessary.

5	Approve a regional Strategy and Action Plan [derived from the Regional Policy Document] to ensure harmonization of national policies and regulatory frameworks and establish the foundation for regional cooperation to address aquatic invasions mediated by ships' ballast water.	[CEP] assisted by experts (Consultants) co-ordinate the preparatory work for the adoption of the Strategy through correspondence with the Lead Agencies.
6	Adopt the Strategy for ballast water management in the Caspian Region at an appropriate level to ensure effective implementation and integration in the regulatory framework of Tehran Convention	[CEP] arranging the work of consultants, using the means of electronic communication, if necessary – organize one-day technical experts meeting to finalize the draft Strategy and conclude preparation for the Ministerial Conference. [Parties of Tehran Convention] facilitates a Ministerial Conference for the adoption of the regional Strategy.
7	Undertake national awareness-raising campaigns, including national broadcasting of the documentaries on the problem.	Lead Agencies to communicate with the national televisions and request broadcast-quality copies of the documentaries and broadcasting permissions.
8	As soon as practical, require ships flying country's flag or calling at country's ports to carry and implement on a voluntary basis <i>Shipboard Ballast Water Management Plans</i> , in anticipation of the entry into force of the IMO Convention and as part of the awareness-raising efforts.	Countries, assisted by IMO as required.
9	Develop a national/regional roster of experts with experience of all key facets of ballast water management issues to contribute to the technical discussions and studies (roster should include Port State Control officers, Ballast Water Inspectors, scientists etc).	[CEP] to provide its current list of experts (roster) as a model and a starting point to assist Lead Agencies in the efforts to establish the ballast water experts roster.
10	Facilitate Caspian sea-Black sea-Baltic sea inter-regional sharing of opinions/information to identify synergies, cooperative actions and cross-regional prevention measures and explore ways to secure resource mobilization	Lead Agencies, in consultation with [CEP] and advice from IMO, to finalize the roster
11	Incorporate the relevant activities of the Road Map into [the future phase of CEP and] appropriate Protocol of Tehran Convention to create the premises for inter-regional cooperation	[Secretariat of Tehran Convention] to approach the respective regional Secretariats and offer to host the meeting.
12	Implement activities for national and regional level capacity building (institutional and technical) to address the ballast water issue through: - Repeat regional introductory training programme/s on BW management.	[Secretariat of Tehran Convention] to take actions as appropriate [CEP] and IMO to mobilize resources with potential support from financial institutions IMO, [CEP] to facilitate the training

	<p>- Fulfill advanced training programme/s on BW management</p> <p>- Ship crew specialized training in BW management issues, through national maritime training centres</p>	
13	Request arriving ships to submit BW Reporting Forms (IMO template) and establish a national / regional information system.	Port States
14	Develop a Regional Communication and Outreach plan as well as a Resource Mobilisation Plan.	[CEP] to facilitate
15	Conduct biological baseline surveys/monitoring in ports, including training for port baseline biological surveys.	[CEP] coordinates data collection
16	Learn the opportunity to amend the Tehran Protocol on Caspian biodiversity to support bio-control actions.	[Secretariat of Tehran Convention] initiate the Procedure of amending Convention
17	Learn the best technologies for ballast water treatment and implement for the Caspian Sea	[CHP] coordinates collection and distribution of the information
18	Arriving ships to have BW Management Plan and BW Record Book on board.	Port States to implement requirements into PSC procedures
19	Determine criteria for granting exemptions for application of the BWM and mechanism of consultations on the matters of granting exemptions.	[CEP] makes the arrangements for discussion
20	Establish database related the invasives detected	[CEP] to arrange
21	Discuss harmonized voluntary arrangements for ballast water management in the Caspian region	[CEP] to arrange discussion
MEDIUM TERM ACTIONS (2014-2020)		
22	Depending on the outcomes of national initiatives (and inter-regional discussions), [CEP]/[Secretariat of Tehran Convention] to pursue in and with the support of financial organizations a detailed economic and technical feasibility study of the most promising ballast water management options.	[CEP]/[Secretariat of Tehran Convention] to initiate.
23	Facilitate establishing an effective ballast water sediment reception facility in the ports of the region.	[CEP] to initiate consultations with interested countries and relevant industries
24	Conduct and support research and development on effective ballast water management	Technical advice and possible support through GloBallast Partnership Project might be requested from IMO Countries to decide and inform [CEP] accordingly

	measures considering the unique local situations.	
25	Conduct a <i>Regional Risk Assessment</i> to identify vulnerable ports and optimise compliance monitoring and enforcement of BW management.	[CEP] coordinates
26	Carry out detailed risk assessments for the high risk ports identified in the <i>Regional Risk Assessment</i> .	[CEP] coordinates Lead Agencies facilitate and coordinate this work
27	Develop national legislation mandating BW treatment in co-ordination with other invasive species management and control programmes..	[CEP] coordinates
28	Develop a regional scheme for management, control and monitoring of biosecurity in the Caspian Sea.	[CEP] establish proper procedures
29	Set up measures to check the effectiveness of ballast water treatment and BW in the Region.	[CEP] makes the arrangements for discussion
30	Defining applications for the ships that are not in the scope of the Ballast Water Management Convention.	[CEP] to arrange
31	Establish a web-based information exchange system	

Annex II

Harmonized voluntary arrangements for ballast water management in the Caspian region

Introduction

The harmonised voluntary interim regime is being submitted under paragraph 3 of Article 13 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Management Convention) whereby Parties with common interest to protect the environment, human health, property and resources, particularly those bordering enclosed or semi-enclosed seas, shall endeavour to enhance regional cooperation, including through the conclusion of regional agreements consistent with the Convention. The proposed arrangements take into account other adopted regional policies on ship's ballast water exchange.

The regime forms also part of a regional strategy on ship's ballast water management and invasive species, developed within the Caspian Action Plan¹, with the technical support of the GloBallast Partnerships Project². It is based on the requirements of the Ballast Water Management Convention and is being proposed as an interim regime. The regime is voluntary; therefore, ships entering the Caspian Sea area and ships, trading within this area, are encouraged to apply these guidelines on a voluntary basis as from [XXXXXXXX].

1. Ships entering the waters of the Caspian Sea should:
 - (a) have on board a Ballast Water Management Certificate or Document of Compliance, similar to the status of such Certificate;
 - (b) have on board Ballast Water Management Plan, approved by the Flag Administration and Ballast Water Record Book;
 - (c) transmit BWM information to the Port States' BWM regulatory authority.
2. Sediments collected during the cleaning or repairing operations of ballast tanks should be delivered in sediment reception facilities in ports and terminals, according to Article 5 of the Ballast Water Management Convention.
3. Exemptions can be granted to a ship on a voyage between specified ports or locations within the Caspian Sea area, or to a ship operating exclusively between specified ports or locations within the Caspian Sea area. These exemptions are to be granted according to Regulation A-4 1 of the Ballast Water Management Convention and based on the *Guidelines for risk assessment under regulation A-4 of the BWM Convention (G7)* developed by the International Maritime Organization³.
4. Each vessel calling at a port within the Caspian Sea area is required to have on board and to follow Ballast Water Management Plan complying with requirements of the *Guidelines for Ballast Water Management and Development of Ballast water Management Plans (G4)*

¹ The Contracting Parties to the Framework Convention for the Protection of the Caspian Sea (Tehran Convention) are the following: Azerbaijan Republic, Islamic Republic of Iran, Republic of Kazakhstan, Russian Federation, Turkmenistan.

² GEF / UNDP / IMO project "Building partnerships to assist developing countries to reduce the transfer of harmful aquatic organisms in ship's ballast water (Globallast Partnerships)".

³ Guidelines for Risk Assessment under Regulation A-4 of the BWM Convention (G7), adopted on 13 July 2007, Resolution MEPC.162(56).

developed by the International Maritime Organization⁴ and to keep a record of all ballast water operations carried out.

⁴ Guidelines for Ballast Water Management and Development of Ballast Water Management Plans (G4), adopted on 22 July 2005. Resolution MEPC.127(53).

Annex III

Harmonized Procedures for a Regional Compliance Monitoring and Enforcement System

Introduction

1. The invasion of harmful aquatic organisms and pathogens into new marine environments through ships' ballast water and sediments consist one of the greatest threats for the coastal and sea ecosystems. It is estimated that 3-5 billion tonnes of ballast water are carried annually by ships worldwide. While ballast water is of high importance to the operation of a ship, it is, at the same time, a great environmental threat due to the fact that over 7000 kinds of different microbes, plants and animals are being transferred worldwide every year. The introduction of the above-mentioned organisms into a new marine ecosystem may disturb its balance and affect the economic activities mainly, in the sectors of fishery and tourism, and it may cause illnesses or even death to human populations.

2. It is a matter of high priority that a State develops firstly compliance monitoring and enforcement measures (CME) in line with port State control guidance being developed at IMO¹, and secondly includes research and constant monitoring measures, with view to developing sufficient knowledge concerning the introduction of new organisms in terms of types, places of origin and possible effect on the local marine environment, which will aid the risk assessment process and refine any CME requirements. This information is especially important when interim measures are being considered in order to mitigate the risk of new invasions.

3. Effective communication arrangements should be established on the regional level to ensure proper tracking of violation and the exchange of experience during the application of the CME.

A. Aims of a Ballast Water Compliance Monitoring and Enforcement (CME) System.

4. A CME is the essential component of the overall Ballast Water Management regime or National Strategic Framework designed to assess whether or not a ship has met the IMO Convention's and ports state's BWM requirements, and where necessary, enforce these requirements. There are various mechanisms which a competent authority can use to satisfy itself that the rules and requirements are being met. These may involve sampling or testing, auditing of records, observation or any other action or a combination of these actions and may vary from one country or region to another. The CME will also change in time to stronger when the BWM Convention is ratified.

5. A Ballast Water CME System aims at two things:

1. assess the ship's compliance with the requirements of Ballast Water Management Convention; and
2. gather data from the ship (such as the port of origin of ballast water, ballast water treatment regime, volume of untreated water to be discharged, where and when the discharge is likely to take place, amongst others) so that the port State, in the interim period prior to the BWM Convention coming into force can:
 - identify the risk of harmful aquatic organisms being introduced into an area through the ballast water tanks of a ship ;

¹ These will be discussed and finalised at the IMO's FSI, BLG and MEPC Meetings over the coming year.

- undertake risk assessments for the interim management of the risks posed by ballast water as a vector for the movement of non-indigenous species; and,
 - Identify phytoplankton toxic organisms or other organisms that could be dangerous to the public health (e.g. fish-shell toxins) and potentially be imported into the region through ballast water, and analysis of their potential effects (ecological and socio-economic).
6. The collection of this data after the BWM Convention enters into force will also contribute to the formation and development of exemptions and additional measures.
7. In addition, in order to undertake risk assessments and decide upon management measures, a CME should be backed up with research on:
- the distribution of harmful aquatic organisms (native, non native cryptogenic) in a port or a sea area.
 - gathering data on species in the port of origin of ballast water being discharged in their ports.

B. Components of a Ballast Water Compliance-Monitoring and Enforcement System.

i. Actions by Competent National Authorities

8. The competent Port State Authorities may sample or require samples of ballast water and sediments as part of port State Control enforcement of the BWM Convention, once the Convention has entered into force. It should be noted that guidance on port State control for the BWM Convention is being developed at the present time at the IMO. Port State control is likely to take the form of an initial check of the documentation, the certification of the equipment and the state of the equipment. This will only be backed up with indicative analysis or full sampling if the port State control Officer suspects that there is a problem and cannot find clear grounds in the initial inspection that the ship does not comply with the BWM Convention. Additionally, the port State may wish to target the ship due to previous issues or reports from third countries.

9. Additionally competent National Authorities may require or ask vessels to provide information on ballast or samples in order to collect data for research undertaken to mitigate risk. This can be done on a ballast water reporting form which can be used to check if the ship has applied any interim management requirements set by the port State. However, unless the collection of this information is enshrined in local or national regulations, this submission of information or access to the ship to take samples cannot be made mandatory. It should be noted that there is no requirement for ships to submit ballast water reports within the IMO Ballast Water Management (BWM) Convention.

ii. Sample Analysis of Ballast water to check that the D-2 Standard has been met

10. In case that the Port State authority wants to check if the vessel is in compliance with the D-2 standard of the BWM Convention, then detailed sampling and testing for compliance with the D-2 Standard should be performed. Guidelines on sampling were developed under the aegis of IMO, namely the "Guidelines for Ballast Water Sampling (G2)", and further guidance is being developed by the same organisation at the present time on sampling procedures, as well as indicative analysis (methods of analysing ballast water quickly), which would speed up the sampling and analysis process.

11. If port State Control identifies that sampling and detailed analysis of ballast water and sediments samples is needed, specialist experts such as marine scientists and technicians, who have the appropriate training needed to work onboard ships, should undertake this. Therefore,

arrangements with an accredited technical institute/ university or with an accredited laboratory to carry out the analysis may be required. Moreover, the most critical aspect of such analysis is the number of organisms in the discharge and the organisms' viability, however, it is important to highlight that this sampling and analysis of organisms in the ballast water could be difficult to accomplish without delaying a ship especially in remote ports.

12. During the sampling, analysis of the following suggested parameters should be taken into account:

1. Bacteria and other pathogens in the D-2 Standard;
2. Number of organisms $>50 \mu\text{m}$, specifically checking of viability of species; and,
3. Number of organisms <50 and $>10 \mu\text{m}$, specifically checking of viability of species.

13. The sampling and analysis of ships' ballast water should follow, if possible, standardized official methods, some of which are still in development. This is important to assure the quality of the results globally and will provide support to any enforcement action.

iii. Sediments and ships ballast water tanks being cleaned or repaired

14. According to article 5 of the Convention, Parties should designate those ports and terminals where cleaning or repair of Ballast tanks occurs, so that adequate facilities will be provided with the entry into force internationally of the BWM Convention for the reception of sediments from ships calling at those ports of terminals, taking into account the Guidelines on reception facilities for sediments (G5), developed by the IMO. Countries in the region are invited to provide information on the availability of port reception facilities for sediment, so cleaning or repair of ballast tanks can occur in Caspian Ports.

Other Research

15. In order to help risk assessments for the development of interim measures, additional measures or exemptions, information should be collected on the biology and physicochemical properties of water and sediments in ports (port of departure and port of arrival). In case that this is not feasible in an area, any available published information should be reviewed. Furthermore, this monitoring should be linked with an alert system so that ships taking up ballast water in an area of concern can be subjected to appropriate emergency ballast water management methods, depending on the nature of the risk that has been identified.

16. Any observation of new invasive species should be shared with other port States within the region and added to relevant global databases on the invasion of harmful aquatic organisms and pathogens. This will also help the international shipping industry and Port Authorities to be informed on any increase of harmful aquatic organisms in certain areas and to enable the authorities in the area to notify ships with additional information on pertinent ballast water management.

C. Enforcement measures and possible types of violations.

17. Enforcement measures should be applied in case it is established that a ship is non-compliant, i.e. the ship is in violation of the BWM requirements of the BWM Convention and/or any other requirements of the port State, such as ballast water emergency measures or additional measures (given that such requirements have been communicated to the ship before arrival by the Port State).

18. In the event that samples are found not to meet the BWM Convention's standard D-2 during port State control, either through "clear grounds" identified in port State control, or through indicative analysis or representative sampling, the ship may be required to stop the discharge of Ballast Water in a port. If this is the case then the ship would have to fix the

problem before continuing to discharge ballast water. Additionally, Port State authorities should avoid undue delays to ships when taking any samples. Actions taken towards ships violating the BWM Convention should be in the form of sanctions, which must be backed up by national law and should be adequate to the level of violation.

19. Non-compliance situations (violations) can be divided into two types:

1. Non compliance resulting in potential risks which could be:

- a situation outside the control of the ship (force majeure), for example where severe weather conditions have prevented a ship from managing its ballast water as required by the Port State, or
- deliberate non-compliance with the Port State's BWM requirements.

2. Non-compliance NOT resulting in potential risks such as:

- Incomplete record keeping by a ship with a strong record of compliance.

20. Each situation of non-compliance should be treated on its merits with all factors being taken into account before any enforcement action is taken. Sanctions could be applied with different levels ranging from none in cases of situations outside the control of the ship, to very serious in cases of deliberate non-compliance such as deliberate discharge of untreated ballast water with full knowledge of the Port state BWM requirements. Sanctions should not be applied to the ship, which discharged untreated ballast with the purpose of saving human's life or the ship.

21. It is recommended that the sanctions regime set up for the BWM Convention is aligned with any existing sanctions applied to shipping for MARPOL related violations.

22. During the initial period (2 years), more soft sanctions may be applied to the violators, taking into consideration the voluntary nature of the arrangements.

Annex III

LIST OF PARTICIPANTS

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the Ballast Water Management (BWM) Convention**

Baku, Azerbaijan, 9 – 11 June 2012

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