Assessment of the Opportunities and Options for a Regional Ocean Governance Mechanism for the YSLME

Drafted by the Grandview Institution

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**Acronyms**

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<tr>
<td>BRI</td>
<td>Belt and Road Initiative</td>
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<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
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<td>DPRK</td>
<td>Democratic People’s Republic of Korea</td>
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<td>EAS</td>
<td>East Asian Seas</td>
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<td>EEZ</td>
<td>Exclusive Economic Zone</td>
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<td>GEF</td>
<td>Global Environment Facility</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>GPA</td>
<td>Global Programme of Action</td>
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<td>GPML</td>
<td>Global Partnership on Marine Litter</td>
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<td>GPNM</td>
<td>Global Partnership on Nutrient Management</td>
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<td>GWI</td>
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<td>IGM</td>
<td>Intergovernmental Meeting</td>
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<td>IGR</td>
<td>Inter-Governmental Review</td>
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<td>IMCC</td>
<td>Inter-Ministry Co-ordinating Committee</td>
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<td>LME</td>
<td>Large Marine Ecosystem</td>
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<td>MPA</td>
<td>Marine Protected Area</td>
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<td>MSTP</td>
<td>Management Science and Technical Panel</td>
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<td>NC</td>
<td>National Co-ordinator</td>
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<td>NEASPEC</td>
<td>North-East Asian Sub-regional Programme for Environmental Cooperation</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NOWPAP</td>
<td>Northwest Pacific Action Plan</td>
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<td>NWG</td>
<td>National Working Group</td>
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<td>PEMSEA</td>
<td>Partnerships in Environmental Management for the Seas of East Asia</td>
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<td>PRC</td>
<td>People’s Republic of China</td>
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<td>PEMSEA Resource Facility</td>
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<td>RAC</td>
<td>Regional Activity Centres</td>
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<td>Republic of Korea</td>
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<td>RWG</td>
<td>Regional Working Group</td>
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<td>SAP</td>
<td>Strategic Action Programme</td>
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<td>TDA</td>
<td>Transboundary Diagnostic Analysis</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>WESTPAC</td>
<td>IOC Sub-Commission for the Western Pacific</td>
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<td>YSLME</td>
<td>Yellow Sea Large Marine Ecosystem</td>
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Executive Summary

This document attempts to provide basic information and analysis on the necessary regional governance mechanism to be applied after the completion of the second phase of the UNDP/GEF Yellow Sea Large Marine Ecosystem (YSLME) project. In order to better reflect the outcomes and achievements of the YSLME project, the document briefly reviewed the processes of the implementation of the first and second phase of the project, including the Transboundary Diagnostic Analysis (TDA) and the regional Strategic Action Programme (SAP), with focus on the proposed regional governance mechanism, i.e. the YSLME Commission. It is also briefly noted the interim operation of such a mechanism during the second phase of the project.

Considering the political and practical feasibilities, the document presents the national rights and responsibilities under the international and regional environment conventions and agreements relevant to the YSLME region. It is clearly indicated in the document that the protection of marine environment and sustainable uses of marine and coastal resources are the urgent requirements of all the coastal countries in the Yellow Sea. In the meantime, the responsibilities of the coastal countries need to continue effective co-operation and co-ordination of all the relevant efforts at regional level.

The document analysed major regional co-operation and co-ordination mechanism relevant to the Yellow Sea, focused on their geopolitical situations, geographic coverages, major actions and activities, and possibilities of potential co-operation and co-ordination. The potential options of regional governance mechanisms were proposed in the document with focuses on the proposed functions on agreement seeking, conflict resolving and sustainable finance.

This document will be submitted to the Interim Committee Council of YSLME project for consideration and approval.
1. General Information

1.1 Global Problem and Regional Solution

As the cradle and foundation of all life, the ocean covers most of the Earth’s surface and plays an essential role in human well-being and socio-economic development worldwide. However, the ocean is increasingly threatened by human activities, and it is constantly degraded and destroyed. Its capacity of providing vital support to ecosystems is decreasing, and the pressures on coastal and marine ecosystems continue to rise. The United Nations convened the first United Nations Ocean Congress in 2017, calling on the international community to reverse the trend of ocean decline, and to build innovative partnerships and explore effective solutions for the “Conservation and Sustainable Use of Oceans and Marine Resources”.

The meeting, which revolved around Sustainable Development Goals (SDG) 14, proposed 5 specific tasks: 1) identifying approaches and methods to support SDG 14; 2) leveraging existing successful partnerships to promote new, innovative, practical new partnerships; 3) mobilising all stakeholders to assess the implementation of SDG 14 related challenges, opportunities and actions; 4) sharing experiences in achieving the SDG 14; and 5) providing feedback on SDG 14 for the high-level political forum on sustainable development. In 2017, UNDP and GEF jointly released “Making Waves: Community Solutions, Sustainable Oceans” and “Sea, My Life: Protecting Ocean, Sustaining Future”. The successful governance experiences of countries in marine conservation and sustainable development are summarised from 2 levels of community and country respectively, and relevant policy recommendations for promoting sustainable development of the ocean and seas are put forward.

1.2 Relevant Information of YSLME Phase I & II

Since the 1990s, the Experts from China and RO Korea realised the importance to take joint efforts to protect the Yellow Sea that lies between the two countries. After years of preparation, in 2005, China and RO Korea launched the first phase of the UNDP/GEF Yellow Sea Large Marine Ecosystem (YSLME) Project, with the objective to reduce the environment pressure of Yellow Sea. In order to achieve this objective, the YSLME Project organised the experts to finalise a regional Transboundary Diagnostic Analysis (TDA) and prepared regional Strategic Action Programme (SAP) of Yellow Sea. China and RO Korea signed the regional SAP. Based on this, the two countries developed their own national SAP in 2009.

The Transboundary Diagnostic Analysis (TDA) of the Yellow Sea and the associated causal chain analysis explored the roots and the causes of the Yellow Sea environmental issues. By analysing the problems of the Yellow Sea, the Project identified the priorities for management actions to address the problems and focused on eight major transboundary environmental concerns: 1) pollution and contaminants; 2) eutrophication; 3) plankton community changes; 4) fishing effort exceeding ecosystem capacity to provide provisioning services; 5) problems of sustainability in mariculture; 6) habitat loss and degradation; 7) jellyfish blooms; and 8)
climate change related issues.

The YSLME Strategic Action Programme (SAP) used an innovative “ecosystem-based approach” to manage the complicated relationships between the environmental stresses and the resulting problems. The ecosystem-based approach uses scientific knowledge to guide appropriate management actions that preserve the ecosystem function of the YSLME. The goal of the YSLME SAP is to preserve the “Ecosystem Carrying Capacity” (ECC) which is defined as the capacity of the ecosystem to provide its ecosystem services. These services are vital for the welfare of communities surrounding the Yellow Sea. They include 1) provision services such as fisheries and mariculture, 2) regulating services such as regulation of climate change and water quality, 3) cultural services such as tourism, and 4) supporting services such as nutrient cycling and primary production.

For effective implementation of the regional SAP, the YSLME Project Phase II was approved by the GEF in July 2014. It consisted the following objectives: 1) implementing the strategic action programme for the YSLME; 2) restoring ecosystem goods and services; and 3) consolidating a long-term regional environmental governance framework.

The approval of YSLME Phase II (2014) lagged significantly behind the signing of SAP (2009) due to procedural reasons to UNDP and GEF, as well as the DPR Korea issues. In July 2018, the Chinese government announced a moratorium on all reclamation approvals, and strictly assessed the eco-environmental impacts of former reclamation projects, to enhance the protection of coastal wetlands in nationwide including Yellow Sea. This project took only 2.5 years from formal launch to finish. Admittedly, it was a huge challenge for most of representatives just participated in the project to form a common management mechanism to serve the Yellow Sea region.

1.3 Current Regional Conditions, Including Environmental and Geo-Political Problems Facing the Yellow Sea

1.3.1 Environmental Problems

Since the end of the first phase of the YSLME Project, although there was delays of the phase II, China and RO Korea have made various efforts to implement their signed SAP to alleviate environmental pressure in the Yellow Sea, including reducing nutrient discharges, reducing fishing efforts, extending the closed fishing season and developing sustainable mariculture. In order to protect fishery resources in the Yellow Sea, in 2018, the Chinese government extended the closed fishing season in the Yellow Sea area by one month, to a period of four months (from May 1st to September 1st) and strengthened the law enforcement efforts in Yellow Sea. In July 2018, the Chinese government announced a moratorium on all reclamation approvals to enhance the protection of coastal wetlands in nationwide including Yellow Sea. The RO Korea government has also carried out a large number of relevant demonstration activities for the SAP.

However, the Yellow Sea is a shelf edge sea and the environmental impact is even more pronounced in the broader context of global climate change. Some new environmental
problems or changes have arisen in recent years in Yellow Sea, such as the harmful marine organism blooms (red tide, green tide, gold tide and jellyfish blooms).

The green tide caused by macro green algae is a kind of marine ecological disaster occurring off the coast of many coastal countries in the world. From 2007 to 2018, the green tide formed by large green algae (*Ulva prolifera*) broke out in the south Yellow Sea every year. It largely damages to tourism, ecological environment and mariculture along the coast of Shandong and Jiangsu Provinces in China, and inevitably, its severity becomes a focus of social concerns.

The gold tide is also marine ecological disaster caused by the fulminant proliferation of the floating state of Sargasso. Similar to the green tide, the gold tide also causes a series of ecological environment problems imposing a negative impact on tourism and mariculture. In recent years, the gold tide phenomenon formed by Sargasso has shown an upward trend in the world and has the potential to develop into a global disaster problem of algal blooms. In the Yellow Sea, the threat of gold tide is gradually emerging.

### 1.3.2 Geopolitical status quo

During the Phase I of the YSLME Project, DPR Korea did not participate in the full project activities, but attended the most Project Steering Committee (PSC) meetings as an observer. With the efforts of all stakeholders, PR China, DPR Korea and RO Korea jointly participated in the preparation of the regional SAP and the Project Document of the phase II of the YSLME Project. However, due to United Nations Security Councils several resolutions, the DPR Korea failed to participate in the project’s second phase. Since 2018, the DPR Korea has made major adjustments to its national policy, and the national strategic direction has been adjusted to “full economic development”. Over the past years, mutual trusts among all the coastal countries of the Yellow Sea have gradually consolidated. It is appropriate that suitable cooperative and management mechanism for the Yellow Sea would be established to facilitate appropriate cooperation, to further build up mutual trusts and to contribute to regional peace and stability.
2 Regional Ocean Governance Mechanism Existed in the Global Agreements and Programmes

As agreed upon gradually by most of the countries and the international communities, the integrity and interaction of world ocean call for an integrated protection of its environment and resources. Based on this understanding, since 1960s, a large number of global programmes and agreements have been developed and entered into force in the area of marine environment protection, in order to provide a global framework for all the nations to address specific marine environmental problems with a global feature. Except the obligations imposed to countries as members, these global programmes and agreements have advanced requests for countries to build regional governance mechanism to respond to the governance need as well. The two coastal countries in the YSLME region, PR China and RO Korea have already signed and adopted many of these international agreements and engaged in many of these global programmes, therefore, the two countries have responsibilities to develop a regional governance mechanism in implementing these global agreements and programmes.

2.1 Regional Governance Mechanism under Global Agreements on Marine Environment Protection and Sustainable Use of Natural Resources

Considering the marine environmental problems of the YSLME identified in the TDA and SAP, the following international conventions and agreements will be discussed:

- The Convention on Biological Diversity (CBD) and its Cartagena Protocol and Nagoya Protocol
- The Convention on Wetlands of International Importance (Ramsar Convention)
- United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol and Paris Agreement
- FAO Code of Conduct for Responsible Fisheries


The UNCLOS is the international agreement that defines the rights and responsibilities of nations with respect to their uses of the world’s oceans. UNCLOS specified the parties’ obligation on living resources and marine environment protection mainly in Part 5 Exclusive Economic Zone (EEZ), Part 7 High Seas and Part 12 Protection and Preservation of the Marine Environment. As the “constitution” of the ocean, the UNCLOS specifies clearly that States shall cooperate on a regional basis to: 1) formulate and elaborate international rules, standards and recommended practices and procedures for the protection and preservation of the marine environment; 2) notify other States of imminent danger of pollution; 3) jointly develop and
promote contingency plans for responding to pollution incidents; 4) undertake programmes of scientific research and encourage the exchange of information and data through establishing regional marine scientific and technological research centres, establishing appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures etc.1


The London Convention applies to the deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms and other man-made structures at sea, as well as to the deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures themselves. It requires that Contracting Parties issue a permit for the dumping of wastes and other matter at sea, and generally prohibits the dumping of certain hazardous materials. Its 1996 Protocol prohibits incineration at sea and the export of wastes and other matter for the purpose of ocean dumping.

1972 London Convention and its Protocol also emphasised the importance of regional effort to this international framework by encouraging Contracting Parties with common interests in marine environment protection in a given geographical area to enter into regional agreements, taking into account characteristic regional features. The Contracting Parties shall endeavour to act consistently with the objectives and provisions of such regional agreements, and shall cooperatively seek to develop harmonised procedures to be followed by Contracting Parties and to improve monitoring and scientific research.2

2.1.3 Convention on Biological Diversity

The Convention on Biological Diversity (CBD) recognised for the first time in international law that the conservation of biodiversity is “a common concern of humankind” and is an integral part of the development process. The Convention has three main goals including: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of benefits arising from genetic resources. It also covers the rapidly expanding field of biotechnology through its Cartagena Protocol on Biosafety, addressing technology development and transfer, benefit-sharing and biosafety issues. The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilisation is a supplementary agreement which provides a transparent legal framework for the effective implementation of the fair and equitable sharing of benefits arising out of the utilisation of genetic resources.

1 UNCLOS, Art. 197-201  
2 1972 London Convention, Art. 8
It addresses the importance of, and the need to promote, international, regional and global cooperation among States and intergovernmental organisations and the non-governmental sector for the conservation of biological diversity and the sustainable use of its components.

It creates a global cooperation structure with major functions including: 1) decision-making mechanism, 2) sustainable financial mechanism and 3) conflict resolving mechanism. The decision-making mechanism is carried out through Conference of the Parties by adopting agreements, protocols, amendments to the convention, adopting financial budget and operational rules of procedure, reviewing the implementation of Convention. The Conference of the Parties is composed of both full members and observers with a different right to vote on different issues. In the sustainable financial mechanism, major sources of financial supports come from the governments of the participating countries, developed country Parties, voluntary Parties and sources. The conflict resolving mechanism is carried out by negotiation, mediation, or by arbitration or submission of the dispute to the International Court of Justice on written agreement from both sides of the dispute.5

Besides, the CBD also recognises the important role that local government or community plays in respecting, preserving and maintaining knowledge, innovations and practices of traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promoting their wider application.4 It encourages government to support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced.5

The CBD included marine and coastal biological diversity into its account and encouraged all parties to take integrated marine and coastal area management (IMCAM) as a tool to promote the conservation and utilization of marine and coastal biodiversity. On COP 4, ecosystem approach and precautionary approach were introduced to deal with the activities that have negative effect on marine and coastal biodiversity. On COP 10, issues of unsustainable fishing, ocean fertilization, ocean acidification and anthropogenic underwater noise and their negative effects were discussed. IMCAM, Marine Spatial Planning (MSP) and Environmental Impact Assessment (EIA) were recommended as tools to manage marine biodiversity. On COP 14, parties were invited to identify the Ecologically or Biologically Significant Marine Areas (EBSAs) within their jurisdictions and implement assessment on those areas.

2.1.4 Convention on Wetlands of International Importance Especially as Waterfowl Habitat

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) is an international treaty for the conservation and sustainable use of wetlands. It requires each contracting party to designate suitable wetlands within its territory

3 CBD, Art 20-27
4 Ibid. Art. 8
5 Ibid. Art. 10 (d)
for inclusion in a List of Wetlands of International Importance and formulate and implement their planning so as to promote the conservation and wise use of the wetlands. It also promotes the establishment of nature reserves to protect and conserve wetlands and waterfowl.\(^6\)

The Ramsar Convention established an advisory based global platform for the conservation and sustainable use of wetlands. The main functions of the Conferences on the Conservation of Wetlands and Waterfowl are discussing and exchanging of information and providing general or specific recommendations to the Contracting Parties.\(^7\) Compared to the governance structure established under CBD, the governance structure under Ramsar is rather weak and lacks of guarantee from aspects of finance and institutional arrangements.

### 2.1.5 The United Nations Framework Convention on Climate Change and Its Protocols

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty to “stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. The framework sets non-binding limits on greenhouse gas (GHG) emissions for individual countries and contains no enforcement mechanisms. In 1997, the Kyoto Protocol was concluded and established legally binding obligations for developed countries to reduce their GHG emissions in the period 2008-2012. In 2015, the Paris Agreement was adopted, governing emission reductions from 2020 on through commitments of countries in ambitious Nationally Determined Contributions.

The UNFCCC emphasises the participation of non-governmental organisations in promoting and cooperating in education, training and public awareness related to climate change\(^8\), as well as in seeking and utilising the services and information provided by non-governmental bodies\(^9\).

### 2.1.6 FAO Code of Conduct for Responsible Fisheries

The FAO Code of Conduct for Responsible Fishing (CCRF) provides principles and standards applicable to the conservation, management and development of all fisheries. It also covers the capture, processing and trade of fish and fishery products, fishing operations, mariculture, fisheries research and the integration of fisheries into coastal area management. This Code is voluntary in nature. However, certain parts of it are based on relevant rules of international law, including those reflected in the United Nations Convention on the Law of the Sea.

The Code is global in scope, and is directed toward members and non-members of FAO, fishing entities, sub-regional, regional and global organisations, whether governmental or non-

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\(^6\) Ramsar Convention, Art. 2 and Art. 4
\(^7\) Ibid. Art. 6
\(^8\) UNFCCC, Art. 4 (i)
\(^9\) Ibid. Art. 7 (f)
governmental, and all persons concerned with the conservation of fishery resources and management and development of fisheries.

CCRF emphasises responsible fishing and requires the fishery industry to be done in a responsible manner and sets the obligation to States to conserve aquatic ecosystem, including critical fisheries habitats. It calls for the integration of fishery and coastal community and requires that fisheries interests be taken into account in the multiple uses of the coastal zone and be integrated into coastal area management, planning and development.\(^\text{10}\)

### 2.2 Regional Governance Mechanism under Global Programmes on Marine Environment Protection and Sustainable Use of Natural Resources

Apart from the international agreements discussed above, there are established global programmes which have developed regional governance mechanisms, for example the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). GPA was adopted by 109 governments and the European Commission in November 1995. The Programme represents global commitment among national governments, international and regional organisations and programmes, non-governmental organisations and major groups, to protect and preserve the marine environment from adverse impacts of land-based activities. UN Environment serves as the Secretariat for the GPA and is tasked with facilitating and promoting the implementation of the GPA through international, regional and national action. The Programme is reviewed every 5 years through an Inter-Governmental Review (IGR) mechanism. The GPA has established and is strengthening three global multi-stakeholder partnerships: the Global Partnership on Nutrient Management (GPNM), the Global Partnership on Marine Litter (GPML) and the Global Wastewater Initiative (GWI).

GPA’s regional governance is closely inter-linked to the Regional Seas Programmes as well as other regional conventions, agreements and programmes for the protection of the marine and coastal environment, through means such as the development and implementation of protocols addressing land-based pollution sources and activities, processing to apply ecosystem approaches to watershed, coast, ocean and large marine ecosystem and island management, developing and strengthening strategic partnerships and improving interregional action, cooperation, scientific understanding, environmental education, exchange and sharing of knowledge, technology and experience.

The role of the Programme as a strategic policy platform aimed at accelerating national implementation through integrated coastal management and other initiatives. Such a process would require further capacity-building, the development of global and regional partnerships, monitoring activities, access to financing mechanisms and the sharing of information across sectors. Therefore, the key was to take local action to link the upstream and downstream dimensions on a large scale. With that in mind, the GAP programme encourages cooperative and collaborative action and partnerships in particular at the local level, among governmental

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\(^{\text{10}}\) FAO CCRF, Art. 6
institutions and organisations, communities, the private sector and non-governmental organisations which have relevant responsibilities and/or experience.

2.3 Suggestions to Future Regional Ocean Governance Mechanism of the YSLME to Comply with the Responsibilities under Existing Global Agreement and Programmes

UNCLOS has made an obligation to the contracting states to cooperate on a regional basis to protect the marine environment and sustainable uses of natural resources. As the contracting parties, PR China and RO Korea’s efforts on developing a regional mechanism in the YSLME is not only a commitment to protect the world’s ocean in general, but also an implementation of their obligations under the UNCLOS. Considering the existed international legal documents and the national responsibilities the two countries bore, the following suggestions are made to the structure and function of this regional mechanism.

The current international legal frameworks related to marine environment protection and sustainable uses of natural resources address issues including: 1) marine pollution from all kinds of sources; 2) sustainable uses of marine living resources, especially fishery resources; 3) protection of marine biodiversity; 4) protection of coastal habitats and wetlands; 5) cooperation in marine pollution incidents by oil and hazardous chemicals; and 6) climate change issues relevant to ocean. Therefore, the focuses of the future regional governance mechanism should cover the environmental transboundary issues diagnosed through TDA as well as issues identified in the international legal documents. Some of the above issues have already fell into the areas of current regional mechanism, while some still remain less focused and need to be strengthened, like pollution from dumping, climate change adaption, co-operation in pollution incident, protection of living resources other than fisheries etc.

Since the regional mechanism should cover a wide range of areas, from pollution to resources depletion, from shipping to fishery etc., the participants representing Chinese government in this regional mechanism should include various ministries, local governments, academia, media, private sectors and other relevant stakeholder.

Since regional ocean governance has to be realised through both the “bottom-up” and “top-down” approaches, it is necessary to invite stakeholders of all levels to participate in this future regional mechanism. Some international conventions and guidelines, such as CBD, UNFCCC and CCRF, have recognised the importance of participation of NGOs and local communities. Therefore, the future regional mechanism should provide a platform for both NGOs and local governments to speak out and fully participate into the whole governance process.

In order to save resources and reduce the difficulty of establishment, an option for the future regional ocean governance mechanism of the YSLME is to use the existed platform built by other regional ocean governance mechanism or programmes, just like the regional governance of GPA is closely linked with UNEP’s Regional Sea Programmes.

UNCLOS suggested that the regional co-operation should work on to formulate and elaborate international rules, standards and recommended practices and procedures for the protection and preservation of the marine environment; notify other States of imminent danger of pollution;
jointly develop and promote contingency plans for responding to pollution incidents; undertake programmes of scientific research and encourage the exchange of information and data; establish appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment.\textsuperscript{11} In order to work in this direction, the major functions of regional mechanism should include:

(1) Promote, to the greatest extent possible, harmonisation, implementation and enforcement of existing policies and laws pertaining to the conservation and management of transboundary marine resources and environment;

(2) Encourage harmonisation of conservation and management measures concerning marine resources and the environment;

(3) Promote and support research programmes related to the transboundary marine resources and the environment;

(4) Promote the collection, exchange, dissemination and analyses of the relevant data and information, including statistical, biological, environmental and socio-economical;

(5) Support training, public awareness and strengthening of capacity in areas covered by this regional mechanism.

\textsuperscript{11} Ibid. Art. 197-201
3. Existing Governance Mechanism for the YSLME

3.1 Existing Regional and International Mechanisms Relevant to YSLME’s Ocean Governance

3.1.1 Existing YSLME Mechanism

The Interim YSLME Commission is now an existing governance mechanism, at interim period, within YSLME project, which is envisaged as a non-legally binding body that co-ordinates and enhances regional and national efforts to apply ecosystem-based approach for ocean management. The YSLME project concentrates on the areas relevant to fish stock recovery, sustainable mariculture, habitat conservation, monitoring and assessment, pollution reduction and good governance. In order to achieve the management targets set up by the regional SAP, it has an innovative governance structure consisting of the Interim Commission Council (ICC), the Management, Science and Technical Panel (MSTP), the Regional Working Groups (RWGs) at regional level. The Inter-Ministry Co-ordinating Committee (IMCC) and the National Co-ordinator (NC) work at national level, and the Secretariat works as the coordinative mechanism in between the national and regional levels.

3.1.1.1 Interim Commission Council (ICC)

The Interim Commission Council (ICC) is a body that serves as the supreme decision-making body with the representatives of the participating countries, as well as the international organisations. It fulfils the obligations of the YSLME Commission on the national and regional ocean governance and provides the overall strategic policy and management direction in implementing the SAP. For example, the ICC consists of the chairpersons of each participating countries, the representatives of the UNDP/GEF, the representatives from the private sectors and NGOs. The Project Management Office (PMO) serves as the secretariat.

3.1.1.2 Management, Science and Technical Panel (MSTP)

The Management, Science and Technical Panel (MSTP) is a permanent body provides technical guidance and scientific advices to the ICC and RWGs in order to monitor the progresses of regional activities and the quality of the outcomes. The regular meetings are held once a year before the ICC meetings. The MSTP is responsible for reviewing and coordinating regional activities, providing scientific guidelines and suggestions for the RWGs, and proposing the ICC with work plans and activities. In addition, the MSTP provided the guidelines for strengthening the Yellow Sea Partnership.

3.1.1.3 Regional Working Groups (RWGs)

The Regional Working Groups (RWGs) co-ordinate and manage project activities at a regional level. It consists of chairpersons of the National Working Groups, leading regional experts, and
representatives from the private sectors and NGOs.

Each RWG organises regular meetings once a year. RWGs are deemed necessary to effectively manage and execute the various activities approved by the ICC. For example, six working groups have been established with responsibility for co-ordinating actions at the regional level, such as reducing fishing effort and rebuilding over-exploited fish stocks. The MSTP provides scientific guidelines to the RWGs and the RWGs are responsible for reporting the progresses to the MSTP.

To sum up, the ICC, MSTP and RWGs are the regional coordination bodies within the YSLME mechanism. The following part will examine the national bodies of the YSLME mechanism, namely the IMCC and the NC.

3.1.1.4 Inter-Ministry Co-ordinating Committee (IMCC)

The Inter-Ministry Co-ordinating Committee (IMCC) has the function of co-ordinating national activities among relevant national ministries and institutions. The IMCC consists of the government executive officials at GEF, the chairpersons of the National Working Groups (NWGs) and relevant ministries responsible for marine issues in the Yellow Sea.

Regular meetings are convened at least once a year. A chairperson and a vice-chairperson responsible for chairing the IMCC meetings are elected from amongst the members. The IMCC reports to the MSTP through the NC. The objective of the IMCC is to ensure smooth implementation of national efforts in line with regional directions and objectives. The meeting of the chairpersons helps direct ocean governance in a way that equal attention be agreed to the necessary interests and concerns of the coastal states.

3.1.1.5 National Co-ordinator (NC)

The National Co-ordinator (NC) is a full-time position appointed by the IMCC and it serves as the primary national contact for the RWGs and the Secretariat. It is responsible for coordinating the national activities among the NWGs under the direction of the IMCC, reporting to the MSTP on behalf of the IMCC on the progress of national activities, and assisting the IMCC to facilitate the participation of the private sector and NGOs in SAP/NSAP implementation.

3.1.1.6 National Working Groups (NWGs)

The National Working Groups (NWGs) is established under the option of IMCC, and they are responsible for the design and implementation of management actions at the national level. The NWGs are organised in line with the requirements, focal areas, and activities of the RWGs. Regular meetings are held at least once a year. The NWGs are responsible for preparing in close co-ordination with the respective NWGs in other participating countries, national activities with work plans to implement the NSAP, and monitoring and evaluating the progress of national activities.
3.1.7 Secretariat

YSLME Interim Commission Council Secretariat is, during the 2nd phase of the project, a permanent body that provides administrative support in national and regional co-ordination among ICC, MSTP, RWGs and NCs. Firstly, the Secretariat assists ICC, MSTP, and RWGs, as well as other regional co-ordination activities relevant to the implementation. Secondly, it monitors the progress of all regional activities of the YSLME ICC and other subsidiary bodies to ensure that activities are implemented in line with the strategic policy and management direction provided by the ICC. Thirdly, it liaises closely with the NCs to ensure smooth implementation of national efforts in line with regional efforts and objectives.

3.1.6 The Limitations of the Current Interim YSLME Mechanism

Although the current interim YSLME mechanism has achieved some management targets designed in the regional Strategic Action Programme (SAP), some limitations are still existing due to the implementation processes and structure. 1) The changes of geopolitical situation in the region have provided political and technical uncertainties for implementing the project activities defined in the SAP. 2) Due to various reasons, such as the re-structure of the governments in the participating countries, the duties changing among ministries have large impacts to the implementation of the project. 3) the technical arrangement, such as the appointments of the staff in the Project Management Office (PMO) showed inconsistencies of the Executing Agency that largely affects the effective management of the project activities.

It should be noted even the interim co-operation and co-ordination mechanism need to be strengthened, the impacts to the effective implementation is still within acceptable range. While considering improvement of current interim mechanism, the more considerations should be given to the above-mentioned elements.

3.1.2 Mechanisms Beyond YSLME

3.1.2.1 Northwest Pacific Action Plan (NOWPAP)

The Northwest Pacific Action Plan (NOWPAP) for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region was adopted by the People’s Republic of China, Japan, the Republic of Korea and the Russian Federation in September 1994 as a part of the Regional Seas Programme of the United Nations Environment Programme. The overall goal of NOWPAP is “the wise use, development and management of the coastal and marine environment so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region’s sustainability for future generations”. And to achieve its goal of governance, a sound NOWPAP institutional Framework is established.

The NOWPAP institutional framework now consists of Intergovernmental Meeting (IGM), four Regional Activity Centres (RACs) and one Regional Coordinating Unit (RCU). The IGM
is held annually in one of the participating countries on a rotational basis. It is the high-level governing body of NOWPAP, and provides the overall policy direction for programme planning and execution. The four RACs, namely CEARAC, DINRAC, MERRAC, and POMRAC, have the functions in taking roles in monitoring and assessments of marine and coastal environment; developing a region-wide data and information exchange network; developing effective regional cooperative measures in response to marine pollution incidents; and preparing cooperative measures related to direct inputs of contaminants with atmospheric deposition and river discharge respectively. As for the RCU, it is the central nerve in directing and promoting the NOWPAP activities. Meanwhile, it is responsible for the implementation of the NOWPAP Members’ decisions regarding the operation of the Action Plan.

3.1.2.2 IOC Sub-Commission for the Western Pacific (WESTPAC)

The IOC Sub-Commission for the Western Pacific (WESTPAC) was established in 1989 by the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organisation (IOC/UNESCO) to promote international cooperation and to coordinate programmes in marine research, ocean observations and services, as well as capacity building in the Western Pacific region and adjacent seas, in order to learn more about the nature and resources of the ocean and coastal areas and to apply that knowledge for the improvement of ocean governance, protection of the marine environment and sustainable uses of coastal and marine resources.

The operational structure of WESTPAC is composed of: 1) the Intergovernmental Session, a decision-making body of the Sub-Commission composed of national representatives; 2) the WESTPAC Advisory Group, responsible for providing scientific and technical advice on the development, planning and implementation of the activities of the Sub-Commission; 3) Ocean Observations and Services, developing regional ocean observing systems among Member States, 4) Marine Sciences and Applications; 5) Capacity Building; 6) The WESTPAC Working Groups, attracting leading scientists in the region to deliberate on specifically focused scientific topics, marine-related societal concerns and other international emerging issues which largely require marine scientific input; 7) the WESTPAC International Marine Science Conference, a unique international platform to advance marine scientific knowledge, and catalyse multi and cross-disciplinary collaborations among its Member States; and 8) the WESTPAC Regional Secretariat Office, carrying out the diverse day-to-day work of the organisation.

From above, the WESTPAC seems to have quite an integrated operational structure with WESTPAC Session taking decision-making role while Ocean Observations and Services, Marine Science and Applications, Capacity Development and Working Group conducting specific governance work, while WESTPAC Office and Advisory Group functioning as coordinators. It provides an effective institutional mechanism ensuring all the Member States participate actively in the work of the Sub-Commission. However, due to the withdraw of the United State from the membership of UNESCO, the substantial impacts have implied to the IOC/WESTPAC, such as the regular budget of the Sub-Commission.
3.1.2.3 Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) is a regional coordinating mechanism for the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). As a shared marine strategy among 14 countries in the region, PEMSEA works with national and local governments, companies, research and science institutions, communities, international agencies, regional programmes, investors and donors towards implementation of the SDS-SEA. PEMSEA aims to foster and sustain healthy and resilient coasts and oceans, communities and economies across the Seas of East Asia through integrated management solutions and partnerships. And to better recognise the importance and urgency in addressing the environmental challenges, PEMSEA has established its own Operating Mechanisms.

The Operating Mechanisms consists of East Asian Seas (EAS) Congress, East Asian Seas (EAS) Partnership Council and PEMSEA Resource Facility (PRF). Firstly, EAS Congress serves as an intellectual melting pot of the various stakeholders, partners and collaborators, and is an opportunity to share knowledge and monitor the progress of the SDS-SEA programmes and projects. Secondly, the EAS Partnership Council is a regular body that provides the policy and operational guidance for the progress of the implementation of the SDS-SEA. Thirdly, the secretariat and technical services are provided by the PRF to support SDS-SEA implementation. PRF oversees the implementation of Council decisions, the organisation of the EAS Congress, and monitoring and reporting. Technical Services delivers and mobilises policy and technical advice, capacity building and technical support for sustainable coastal ocean governance.

3.1.2.4 Bilateral Fishing Agreement

In 1989, China and RO Korea signed an agreement on managing fishing vessel accidents at seas. This was a civil agreement on emergency escape, safe fishing, and accident management of fishing boats between China and RO Korea. Since the establishment of the diplomatic relationship in 1992, China and RO Korea have formally signed the China-Korea Fisheries Agreement in 2000 following a series of meetings held at the working level. The agreement between the two countries clearly states three items, namely the preservation and use of marine life, the maintenance of fishing order at sea, and a stronger mutual cooperation in the area of fisheries.

The key message of the China-Korea Fisheries Agreement is 1) establishment of temporary zone (to jointly preserve marine life, the two countries manage this area together in ways such as limiting the number of fishing vessels); 2) establishment of transitional zone; 3) mutual cooperation in rescue and emergency evacuation; and 4) establishment of joint fisheries commission. As a result of this treaty, China is limited from fishing in RO Korea’s waters and RO Korea is also unable to fish in the Yangtze River, which is also called the golden fisheries. Although there may be complaints from the fishing community of both countries, it has a positive aspect that it can preserve marine resources in East China Sea in the long term.
3.1.2.5 China-RO Korea Environmental Cooperation Agreement

China and RO Korea signed the China-RO Korea Environmental Cooperation Agreement was concluded in October 1993. Based on the agreement, the Joint Committee of China-RO Korea Environmental Cooperation was launched in 1994, and the relevant meetings have been held 18 times in turn until the recent meeting held in Qingdao, China, in October 2013. With the accelerated environmental industrial exchanges between the two countries since 2001, the RO Korea-China Environmental Industry Investment Forum was held in China in July 2002. Bilateral environmental technology circuit meetings have been held since 2008 to serve as a bridge between the two countries to stimulate private investment in the environmental industry sector.

On the occasion of the visit of Chinese President Xi Jinping in July 2014 in RO Korea, the two countries agreed to conduct a China-RO Korea Cooperative Project in the area of air pollution by sharing of observation data on air pollutions, joint research on an air pollution forecast model and air pollution source identification, and human resources exchanges, etc. Based on the previous cooperation on air pollution, ocean environmental protection can be the next potential area attached importance to at governmental level.

3.1.2.6 China-Korea Joint Ocean Research Centre (CKJORC)

China-Korea Joint Ocean Research Centre (CKJORC) was set up in May 1995 in Qingdao. The Centre, a marine research institution supported by the governments of the People’s Republic of China and the Republic of Korea (ROK), as a bridge and window between the two countries in marine-related fields, was established to enhance exchanges and cooperation in a bid to promote the regional development of marine science as well as to protect the marine environment and to boost the sustainable development and utilization of the marine resources in the world.

The CKJORC has mature operation and management mechanism, continuous funding source and clear role positioning. It has three key roles: 1) the Secretariat of China-Korea Joint Committee on Cooperation in Marine Science and Technology; 2) formulating and promulgating marine information; and 3) facilitating marine research cooperation between China and RO Korea.

Since its establishment, the centre has carried out a number of China-South Korea joint marine research projects and established several marine observation and forecasting systems.

As an important cooperation institution between China and RO Korea, the CKJORC has been involved in the first phase of YSLME. By the support of YSLME Project and the First Institute of Oceanography (FIO), CKJORC established the “Yellow Sea Regional Database System”. This system takes advantage of spatial information technology to input, manage, query and display the multi-source and heterogeneous information of the Yellow Sea region and provide convenient and effective data sharing services through World Wide Web. The system is still functioning normally and can serve as a basis for further cooperation in YSLME between China
3.2 Analyses of the Relevance and Effectiveness of the Existing Mechanisms

Table 1 The relevance of the existing mechanisms

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Decision-making body</th>
<th>Technical guidance and scientific advisory</th>
<th>Regional working group</th>
<th>Secretariat</th>
</tr>
</thead>
<tbody>
<tr>
<td>YSLME Mechanism</td>
<td>ICC</td>
<td>MSTP</td>
<td>RWGs</td>
<td>YSLME ICC Secretariat</td>
</tr>
<tr>
<td>NOWPAP</td>
<td>IGM</td>
<td>/</td>
<td>RACs</td>
<td>RCU</td>
</tr>
<tr>
<td>WESTPAC</td>
<td>The Intergovernmental Session</td>
<td>The WESTPAC Advisory Group</td>
<td>The WESTPAC Working Groups</td>
<td>The WESTPAC Regional Secretariat Office</td>
</tr>
<tr>
<td>PEMSEA</td>
<td>EAS Congress</td>
<td>The EAS Partnership Council/PRF</td>
<td>/</td>
<td>PRF</td>
</tr>
</tbody>
</table>

According to the review and the table illustrated above, the existing national, regional and international mechanisms relevant to the YSLME ocean governance have certain governance features in common. Frist of all, these mechanisms all have a decision-making body and a Secretariat, taking the lead in providing overall policy directions on ocean governance and coordinating various stakeholders respectively. Secondly, the YSLME mechanism, the WESTPAC and the PEMSEA have the bodies for providing technical guidance and scientific advisory, aiming to provide specific guidance on regional practical work. Thirdly, regional working groups are similarly established by the YSLME mechanism, the NOWPAP and the WESTPAC. These regional working groups all take in charge of coordinating and managing project activities at regional level. Taking these similar bodies into consideration, the existing YSLME mechanism, on the one hand, has its scientific significance and rationality. On the other hand, the existing YSLME mechanism can also take example by other referential mechanisms for conducting the better ocean governance. However, there are also some limitations need to be carefully examined by the YSLME, such as, the sustainable financial system.

3.3 Implications for the New Mechanism

With completion of the second phase of the YSLME and increased requirements for better co-operation and co-ordination among all the coastal countries of the Yellow Sea, an effective governance mechanism is necessary. Considering the existing national, regional and
international co-operation mechanisms relevant to the Yellow Sea, a new co-operative mechanism is needed as the existing ones are either geographically not focused or technically, they are different comparing with the management requirements approved by the regional SAP.

As is mentioned, the existing co-operative mechanisms relevant to ocean governance can provide good examples to the future of the Yellow Sea. For instance, four regional activity centres subordinated to the NOWPAP stress the significance of divided work in different countries at regional level. The WESTPAC’s eight relevant bodies show how a comprehensive operational structure can get integrated and improve effectiveness. The PEMSEA’s support to regional organisations shows how to involve companies, NGOs and other private sectors in ocean governance. Therefore, it has achieved a healthy top-bottom interaction process through cooperation. The effective effort of the bilateral agreements on specific environmental issues shows how country-driven cooperation can work in appropriate way at national level.

Based on such recognition and the relevance of the existing mechanisms, there are several key elements that can be learned from the existing ocean governance mechanism to establish new mechanism to ensure the long-term governance of the YSLME. It includes: 1) integration into a broader Northeast Asian seas cooperation mechanism; 2) country-driven; 3) comprehensive involvement of stakeholders; 4) financial sustainability and cost-effectiveness; 5) adequate data and information to support decision making; and 6) M&E and Adaptive management. A soft and non-legally binding, collaboration-oriented new mechanism with flexibility in terms of governance structure should be considered.
4. Options for New Governance Mechanism in the Yellow Sea

Based on the analysis in chapter 1 to 3, though national policies, bilateral agreements and international conventions and treaties already exist, and to some extent, contribute to resolve specific marine environmental issues in the YS, it will still be necessary to establish a regional cooperation mechanism in the Yellow Sea to provide solutions at regional level for the long-term effective governance of the YSLME due to the specific geopolitical situation in the Yellow Sea, the achievements of the efforts in the regional co-operation and the approved regional Strategic Action Programme (SAP) in the region.

As the results of systematic analyses, discussions of experts and consultations with relevant governmental organisations, three options for the structure of YSLME governance mechanism have been proposed and justified via the SWOT analysis. It is important for the early involvement of all related nations and comprehensive representation of stakeholders, in particular the local governments, in order to widely include the necessary arrangements from countries and their practitioners and clarify their roles in the YS governance mechanism at the very beginning and throughout the process. A roadmap for short-term and long-term actions has also been provided at the end of this chapter.

4.1 Considerations and Options

4.1.1 Key Elements to Ensure The Long-Term Governance of the YSLME

4.1.1.1 Co-ordination and/or Integration into a broader Northeast Asian Seas Cooperation Mechanism

The Yellow Sea, located in the Western Pacific Ocean, links with the East China Sea in the South and exchanges water with Bo Hai, in the North-west. The limited geographical coverage of YSLME will impede its capacity in addressing the issues occur in the ecologically connected marine ecosystem, such as fisheries, as most fish species migrate seasonally between the Yellow Sea and the East China Sea, rendering a much larger effective ecological responsibility for the YSLME than delineated by its current coverage zone. Thus, it is necessary to consider the co-ordination and/or integration of YSLME governance mechanism with and/or into a broader Northeast Asia Seas Cooperation Mechanisms.

The existing cooperation mechanisms in the North East Asia may include: the Northwest Pacific Action Plan (NOWPAP), IOC Sub-Commission for the Western Pacific (WESTPAC), the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) and etc. A clear agency dilemma exists for competing stakeholders within both the YSLME and NOWPAP camps, who may act to preserve the status quo if their own power base becomes eroded, rather than make the hard decision to support reform of the macro-institutional architecture in the region. A ready-made solution is to cooperate with existing mechanisms whose mandates are to oversee the broader marine coverage areas (S-Y. Chung, 2010). It would be important that YSLME governance mechanism can support a more integrated approach to
Northeast Asian marine protection, by synergising the existing cooperation mechanisms. It will prove to be more fruitful than the current modus operandi of competition among marine institutions for funding and scope of work.

4.1.1.2 Country-Driven

The YSLME governance mechanism should attempt to avoid creating more hierarchies on top of the national government. Instead, it is important that the regional governance mechanism could encourage the dialogue among participating countries, and support the feedback loops within its structure, in order to enhance both the horizontal (inter-country) and vertical (intra-country) communications and interaction at all levels, resolve issues, and ensure that parties are all equipped for and, in fact are, carrying out their agreed actions. This is to ensure that the actions and activities programmed in the SAP and NSAP will be effectively implemented and sustainably financed through recurrent budget within the institutional framework of the governments in the participating countries. The country-driven governance mechanism may operate on the principles of transparency, participation, accountability, and enhanced local capacity.

Extensive consultations need to be conducted with government representatives, authorities, scientific community, other stakeholders and users of the marine resources during the whole process for establishing the YSLME governance mechanism, to clarify and respond to country priorities and concerns. It is important that the YSLME governance mechanism can support to harmonise the national policies and to stimulate the creation of regional arrangements for YS marine environment protection. Also, in order to incentivise the YS countries’ involvement, the governance mechanism needs to provide support to each participating nation for fulfilling their commitments to UN Sustainable Development Goals (SDGs), as well as their obligations to the international environmental conventions, treaties and protocols, detailed in Chapter 2 of this report.

4.1.1.3 Comprehensive involvement of stakeholders

Different stakeholders play different roles to ensure the long-term governance of the YSLME. The national and local governments are the key players in implementing and financing the actions and activities programmed in SAP and NSAP at national and local level respectively. Thus, it is important that the YSLME governance mechanism to support the involvement of all YS rim countries (including DPR Korea), and the enhanced role of local government through regular dialogue, capacity building and pilot projects. Secondly, NGOs can play active role in helping the community understand serious environmental problems through environmental education and/or policy advocacy. Meanwhile, the NGOs could also supplement local governments to implement pilot projects at community level for testing the new ideas and mechanisms of marine resources management and collect data through public science and crowd-sourcing. The cooperation with international organisations, such as UNDP, UNESCO-IOC, UN ESCAP etc., will enhance the dialogue among participating countries and stakeholders, facilitate the development of regional codes of conduct to address various
environmental issues, and influence the national policies. Research and education institutions can provide not only the scientific support to identify the transboundary issues but also the possible solutions. It is also important to support the co-operation with private sectors in order to leverage resources to support the solution-based intervention of YSLME governance mechanism and increase the efficiency.

4.1.1.4 Financial Sustainability and Cost-effectiveness

It is important that the governance mechanism of YSLME could facilitate the resource mobilisation from central and/or local/provincial governments of the participating countries, from international communities or from private sectors, and enable the dialogue among participating countries, the implementation of SAP and the technical support from a permanent secretariat. During the YSLME Phase-1 and 2, the project-based funding from international community (i.e. the GEF) with in-kind or in-cash contribution from the participating countries, are the important funding sources with cost-efficiency, but with limited lifespan for the YSLME governance. In the next stage, the local governments may play more active roles in financing the implementation of SAP. Moreover, the coordinating body of YSLME may also seek resources from private sectors, mainly through the demonstration projects, technical transfer or CSR initiatives.

In all the proposed types of donors, it is important that the YSLME governance mechanism can always aim at providing solution-based deliverables in addressing of the regional environmental issues, which cannot be achieved by an individual organisation. Different from the project-based funding, the solution-based investments will have the potential of sustainability if the solution has indeed solved the problem encountered by the donors in terms of YSLME ecosystem-based management.

Moreover, periodically assessments to the impacts and cost-effectiveness of YSLME investments are necessarily to be carried out by the Interim commission mechanism. Only if the regional initiatives that have been proven to be more efficient and cost-effective than only the national efforts, will the donors have confidence to the YSLME governance mechanism, and possibly consider further investment to the YSLME through this mechanism.

4.1.1.5 Adequate Data and Information to Support Decision Making

It is critical to obtain the adequate data in the YSLME, in order to support the science-based decision making. Thus, the joint efforts on collecting data and sharing data products of the YSLME is critical for the long-term good governance of the YSLME. The development of new technologies of ocean observations (e.g. BGC-Argo, glider and expendable devices), as well as the increased capacity, infrastructure (e.g. research vessels and satellite missions) and investment of both China and ROK in the international ocean observations, make it possible for them to strengthen their efforts in the observation of YSLME. It is not only necessary to enhance the data from natural sciences, but also important that the YSLME governance mechanism can support the harmonisation and continuity of the statistics of marine economy.
and the methodology for integrating the environmental capital in to the calculation of marine economic contribution among the YSLME countries.

4.1.1.6 M&E and Adaptive Management

The YSLME governance mechanism should support the long-term mechanism for permanent monitoring and assessment of the impacts of YSLME project as well as the continuously post-project interventions on enhancement of YS marine environment and ecosystem services. The monitoring and evaluation (M&E) mechanism should allow identifying and implementing continuous adjustments to the conservation and sustainable management actions following the adaptive management principles.

Adaptive management is a structured, iterative process of robust decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. This approach has more recently been employed in implementing international development programmes. In the case of YSLME, there are variety of uncertainties facing in this region, running from political (e.g. the relationship between DPR Korea and RO Korea), institutional (e.g. the government reform in China and ROK), as well as the natural (e.g. climate change) ones. Therefore, it is important that the YSLME governance mechanism could adopt the adaptive management, in order to address the changing environment of the region.

4.1.2 Effective Co-ordination Mechanism for Governance of the YSLME

The effective co-ordination mechanism for governance of YSLME should be institutionalised, operationalised and self-sustained, which might be featured as the following:

• An inter-governmentally agreed procedure for determining regional priorities
• A dialogue platform established for conflict resolution
• Sustained and substantial financial commitments received from the countries
• Data and information exchanging platform established and operationalised
• A robust permanent secretariat being established and functioned

4.2 Proposed Structure

4.2.1 Some Considerations for the Proposed Structures

(I) Title of the structure;

The current title of the proposed regional co-operation mechanism, the YSLME Commission, was proposed during the first phase of the project. The relevant description and agreement were included in the regional Strategic Action Programme (SAP) of YSLME. It was subsequently included in the Project Document for the 2nd phase project as one of the most important outcomes of the project. The GEF Council approved the Project Document.

As the implementation of the 2nd phase of the YSLME project has been largely delayed due to
various reasons, the supporting conditions for the implementation have been changed dramatically recent years.

Therefore, it was worthwhile to re-examine the appropriate title of the regional governance mechanism to best meet the requirements of the participating countries of the mechanism.

(2) Functions of the structure

In the original discussions and considerations during the preparation of the SAP, the major functions of the governance mechanism would include:

• Mechanism for agreement seeking;
• Mechanism for conflict resolving; and
• Sustainable financial mechanism

With full understanding of the intentions and preferences of the participating countries at the time when preparing the document, it is necessary at this moment to review the functions of the governance mechanism to best meet the geopolitical situation in the region and the requirements of all the stakeholders of the mechanism.

(3) Geographic coverage & geopolitical limitation

It is apparent that the geographic coverage of the governance mechanism should cover entire area of the Yellow Sea, unless otherwise decided. The geopolitical situation in the Yellow Sea region has been changed from time to time without pre-notifications. The policies of the relevant participating countries, within and outside the region, varies from time to time following the changes of the geopolitical situation.

Therefore, with understanding that it would be better to have all the coastal countries involved in the mechanism, it is necessary to divide the membership of the governance mechanism into two categories: full member and observer.

(4) Stakeholders

In the SAP and the Project Document have clearly defined it is necessary to involve as wider as possible, if not all, the stakeholders to the governance mechanism, the preferences from the different management side have varied from time to time in particular the issue of Non-Governmental Organisations (NGOs) involvement in the relevant project activities.

The major stakeholders considered here include the governmental organisations (with appropriate co-ordination and co-operation), the local governments, the coastal communities, research and education institutions, NGOs, private sectors etc.

4.2.2 Options

The options presented here are some results of systematic analyses, discussions of experts and consultations with relevant governmental organisations. However, it should be noted that during the consultation and discussion processes, not all the stakeholders were involved. There are needs to have further, in necessary, discussions and consultations with all the relevant
(1) Option 1:

Following the agreements of the SAP agreed by the all participating countries, and the approval of the GEF Council,

Title of the governance mechanism:

The YSLME Commission

Functions of the structure:

• Mechanism for agreement seeking;
• Mechanism for conflict resolving; and
• Sustainable financial mechanism

Members of the Mechanism:

All the coastal countries of the Yellow Sea, with consideration of DPR Korea as observer if geopolitical situation does not allow.

Stakeholder:

All the stakeholders will be involved.

Sustainable financial sources:

Major sources of financial supports will come from the governments of the participating countries, either full members and/or observers. Additional financial incomes may come from other sources, e.g. UN projects, provisions of necessary services of the Commission; and other forms of financial incomes.

(2) Option 2:

If the participating countries consider some modifications on the title of the governance mechanism are necessary to meet the requirements of changes of geopolitical situations and the changes of internal government structures,

Title of the governance mechanism:

The YSLME Co-operative Forum/ Stewardship (with an established secretariat)
**Functions of the structure:**

- Seeking co-operative agreements for better management on marine environment and sustainable uses of marine resources;
- Establishing sustainable financial mechanism with financial support mainly from the participating governments; and
- Securing effective implementation by establishing a secretariat

**Members of the Mechanism:**

All the coastal countries of the Yellow Sea, with consideration of DPR Korea as observer if geopolitical situation does not allow.

**Stakeholder:**

All the stakeholders will be involved, with different functions in the decision-making process.

**Sustainable financial sources:**

Major sources of financial supports will come from the governments of the participating countries, either full members and/or observers. Additional financial incomes may come from other sources, e.g. UN projects, provisions of necessary services of the Commission; and other forms of financial incomes.

**(3) Option 3:**

Incorporating into the existing governance mechanism.

**4.3 SWOT Analysis**

In order to conduct the overall effectiveness assessment of the SAP implementation, strengthened partnerships with existing regional co-operative institutions, is necessary including, but not limited to, bilateral co-operation mechanisms such as the Joint Fisheries Commission and China-Korea Joint Ocean Research Centre etc. Based on the 3 proposed options of structures for the governance mechanism, it will analyse the Strength, Weakness, Opportunity and Threats (SWOT) as below:

| Table 2: SWOT analysis for the proposed options for YSLME Governance |
|-----------------------------------|-----------------------------------|-----------------------------------|
| **Option 1** | **Option 2** | **Option 3** |
| YSLME Commission | YSLME Forum/ Stewardship | Integrating with existing mechanism |
| **Strengths (S)** | • Fully involvement of governments of all YS rim | • The Forum/Stewardship engages top level | • Less additional coordination effort needed |

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<table>
<thead>
<tr>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YSLME Commission</strong></td>
<td><strong>YSLME Forum/ Stewardship</strong></td>
<td><strong>Integrating with existing mechanism</strong></td>
</tr>
</tbody>
</table>
| countries at both national and local level to ensure the most updated conservation and sustainable development policies and legislations at all levels;  
  • Comprehensive stakeholders’ involvement at all levels will enable the resources mobilisation from various sources;  
  • Functions of agreement seeking, conflict resolving and sustainable financing can be fulfilled under the established mechanisms;  
  • The establishment of YSLME Commission has been documented in the SAP, which has already been endorsed by China, ROK and DPR Korea (as observer);  
  • Science-based decision-making mechanisms. | government decision makers to ensure the most updated conservation and sustainable development policies and legislations;  
  • Multi-party cooperation platform with diversified participants of decision makers, scientists and organisations;  
  • Balance the needs of varied stakeholders;  
  • Science-based decision-making mechanisms;  
  • A secretariat will be established and functioned to support the governance mechanism;  
  • The tangible community amongst the stakeholders based on the different working fields. | and less resource consuming;  
  • Increased cost-effectiveness of the exiting mechanisms;  
  • Avoid overlaps between YSLME governance mechanisms and the existing ones;  
  • Reduced workload of governments from participating countries in negotiating, approval and financially committing to a new regional governance mechanism. |

<table>
<thead>
<tr>
<th><strong>Weaknesses (W)</strong></th>
<th><strong>Weaknesses (W)</strong></th>
<th><strong>Weaknesses (W)</strong></th>
</tr>
</thead>
</table>
| • Long time needed to get all countries and stakeholders agreed on and committed for resources to the YSLME commission. Thus, it cannot serve as the immediate solution for the YSLME governance;  
  • More financial resources and coordination efforts are needed to operate the Commission and sub- | • A looser co-ordination mechanism with lower objectives setup comparing to option 1. For example, it lacks force and binding effect in solving the ecological issues in the Yellow Sea compared with option 1. | • Dilute regional coordination efforts for the YSLME;  
  • Highly restricted to the weakness and inefficiency of the exiting mechanisms;  
  • Cannot effectively involving of DPR Korea. |
<table>
<thead>
<tr>
<th><strong>Opportunities (O)</strong></th>
<th><strong>Option 1</strong> YSLME Commission</th>
<th><strong>Option 2</strong> YSLME Forum/ Stewardship</th>
<th><strong>Option 3</strong> Integrating with existing mechanism</th>
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<tr>
<td>• Willingness from all participating countries in continuing the efforts of YSLME phase 1 &amp; 2.</td>
<td>• Enhanced sustainable development; • The greatly promoted public awareness in China and Korea in particular through the enhanced role of NGOs; • Enhanced national policies in support of the YSLME governance.</td>
<td>• New investment opportunities on environmental protection and sustainable development of YSLME within the existing mechanisms.</td>
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<tr>
<th><strong>Threats (T)</strong></th>
<th><strong>Option 1</strong> YSLME Commission</th>
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<th><strong>Option 3</strong> Integrating with existing mechanism</th>
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<tbody>
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<td>• DPR Korea cannot join due to changing of geopolitical situation; • Not enough resources committed by participating countries to support the YSLME Commission.</td>
<td>• Lack of financial support from participating governments to support the YSLME Forum/ Stewardship; • Government restructure to discontinue the support to the YSLME Forum/ Stewardship.</td>
<td>• The existing coordination mechanism only care about specific issues (e.g. marine litters) which may impede its effectiveness in addressing the regional priority issues identified in the SAP; • DPR Korea cannot join due to changing of geopolitical situation.</td>
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### 4.4 Sustainable Finance Mechanism

The sustainable finance mechanism may include the following elements:

- Government funding mechanism, combined with government project, such as sustainable fishery, costal land restoration, building up of new marine protected area system

The Yellow Sea Large Marine Ecosystem Project engaged different stakeholders and creative conservation approaches with the long-run perspective implementation actions, the successful model would be duplicated in the in the sea scape scale with the guidance of UN’s marine conservation initiative and cooperation between China and RO Korea. Along with COP 15 of CBD 2020 will be held in Kunming of China, and the upcoming Green Belt-and-Road Initiative (BRI), the focal point of marine conservation will be greatly improved with the policies and public funds supporting on sustainable fishery, coastal ecological restoration and establishment of marine protected area (MPA) systems.
Recruitment of social society engagement

The advocacy and public awareness also have been greatly improved within the recent decades, promoting the social society engagement in more creative manner along with the internet and social network. There are also some private foundations, such as Ocean Five, Paradise Foundation International, SEE Foundation etc. initiate the strategy of coastal restoration, sustainable fishery and public advocacy as well. The Yellow Sea Large Marine Ecosystem Conservation Fund could be established with current management platform by the public fundraising of Tencent We-Chat, Ali-Pay and Union Pay systems which becoming very popular in China now.

The private sector, especially the movie industry shows great interest recent years on the marine ecosystems, there are great potential to raise funds and investments through CSR (Corporate Socials Responsibility) mechanisms on conservation initiatives, the Social Impact Investment also can become added value for prospective ventures with our endeavour of potential cooperation with consultancies.

Social market mechanism

Social market mechanism has been introduced to the nature conservation for decades in China. As one of the approaches, the community engaged Conservation Steward Programme has been proved very successful on the land and fresh water ecosystems conservation, and meanwhile introduced to marine ecosystems conservation in the recent years, the sustainable livelihood and eco-tourism activities can be introduced to the surrounding community for their sustainable engagement on the conservation actions.

By working with research institute and related scientist, the marine conservation mobile APP will be developed as potential conservation revenue.

4.5 Roadmap with Planning

It may not be practical to establish a perfect governance mechanism, that could be efficiently operated and financially sustained in the short term, as it takes time for all the stakeholders involved in the YSLME governance to be equipped with the adequate knowledge and capacity to support the ecosystem-based approach of the YSLME. However, it is important to maintain the regular dialogue to build trust among all the countries and stakeholders involved in the YSLME. In the long-run, an independent and correlated coordination body could be anticipated in order to operationalise the three functions to be fulfilled by the YSLME coordination mechanism, i.e. agreement seeking, conflict resolving and financially sustained.

In the immediate period after the completion of YSLME phase 2 project, there are needs to have further, if necessary, discussions and consultations with all the relevant stakeholders on establishing the regional coordination mechanism for YSLME governance. There is an urgent need to update the knowledge in supporting of the ecosystem-based approach of the YSLME. One of the urgent tasks is to update the Transboundary Diagnostic Analysis (TDA) in order to reflect the changing situation both in nature and in politics and institution. The SAP and NSAP
should also be updated associated with the changes of the TDA. It is also important to identify the data and knowledge gaps in supporting of the ecosystem-based management of YSLME.

In the long-run, aiming to establish an institutionalised, operationalised and self-sustained coordination mechanism, the option 2 would be a preferred choice. As for the function, it will be functioned as 1) Seeking co-operative agreements for better management on marine environment and sustainable uses of marine resources; 2) Establishing sustainable financial mechanism with financial support mainly from the participating governments; and 3) Securing effective implementation by establishing a secretariat. The efforts should be made to get the proposed governance structure endorsed by all the coastal countries of the Yellow Sea, with consideration of DPR Korea as observer if geopolitical situation does not allow. In terms of the stakeholders, it needs to receive commitments from stakeholders to facilitate the comprehensive partnership building with national and local governments, research and education institutes, media, private sectors, NGOs, regional coordinating mechanisms, and international organisations. As for mechanism in operation, 1) a permanent secretariat is highly demanded to support the regional initiatives and to ensure the operation of the mechanism; 2) regular meetings need to be held in order to strengthen the significance of the mechanism; 3) sustainable financial sources need to be created to guarantee the operation of the mechanism; 4) the priorities and the leading project needs to be established to promote cooperation.
5. Conclusion

Within very short time allocated for preparing this document, the Grandview Institution has got several experts to prepare this document. Careful discussions were carried out to clearly define the responsibilities of all invited experts. Following the completion of the 1st draft of the document, an expert consultation was held in Shenyang, China, 2 June 2019, with participating of Chinese and Korean experts and staff from PMO.

With inclusion of major analysis of various issues, including the national responsibilities and rights under the framework of major international and regional environment conventions and agreements and the major regional co-operation and co-ordination mechanisms, several options of regional governance mechanism were included in this document for consideration and approval, if appropriate, by the ICC of YSLME.

The Grandview Institution expresses its high appreciation to all the experts involved in this study.
Appendix

Interviews with the RO Korean Ministries:

A Consideration on the Sustainability of the YSLME Project

The RO Korean ministries recognise that the Yellow Sea plays an important role in terms of economic, societal, and geo-political aspects. They also highly value the progression of the YSLME project. As such, they recognise the significance and necessity of YSLME for the preservation and sustainability of the Yellow Sea.

They harbour a mutual awareness that the spirit of YSLME should be promoted in order to develop further collaboration mechanisms between RO Korea and China. For the better preservation of the Yellow Sea, it would be highly desirable for North RO Korea to also join the collaboration mechanism.

With regard to the collaboration mechanism, the current mechanism devised by the RO Korean ministries not only disorients the spirit of the YSLME project but is also insufficient for developing a long-term sustainable collaboration mechanism. It is therefore desirable to create a new collaboration mechanism that corresponds with the main goal of the YSLME project.

The existing collaboration mechanism suggested by the RO Korean ministries has shown that the current forms of committees and collaboration networks may not efficiently address all the required activities. This implies that the collaboration mechanism requires an innovative governance structure that may effectively support collaborative activities.

The new mechanism should serve as the foundation for collaborative activities between the two countries. The RO Korean ministries also claim that the new mechanism should be formatted in a way that it can embody and facilitate ecosystem-based management of the Yellow Sea at the regional level. To better preserve and increase sustainability in the Yellow Sea, it would also be necessary to consider incorporating North Korean participation into the collaboration network.

In case North Korea cannot immediately join the new mechanism, she may be invited as an observer under the new mechanism in the beginning. If necessary, UN organisations which may have relevant expertise and experience, such as the UNDP, may be invited as well.

In this respect, in terms of the governance structure of the new collaboration mechanism in the Yellow Sea, the Arctic Council may serve as a benchmark case. The Arctic Council may serve as a forum among the member countries, observers and relevant stakeholders to deal with shared concerns and other issues within the Arctic Region. Moreover, a permanent Secretariat of the Arctic Council functions only as a way of providing technical secretarial services for the Arctic Council.

To sum up, RO Korean ministries suggest a soft and non-legally binding, collaboration-oriented mechanism which may provide flexibility in terms of governance structure and in
involving relevant countries and organisations, including DPR Korea. Furthermore, a permanent Secretariat which has a legal personality only for the purpose of maintaining its technical services role, needs to be established.

Collaborative Mechanisms throughout the years in RO Korea:

Collaborative Mechanisms

Overview:

The RO Korean government is currently member to various international environmental agreements related to marine environment, including but not limited to the UN Convention on Climate Change, London Convention, UN Climate Change Convention, Convention on Biological Diversity, Convention on Ramsar, Nagoya Protocol, Convention on the Law of the Sea, OPRC Convention, and MARPOL.

At the regional level, RO Korea participates in various regional cooperative mechanisms including but not limited to North West Pacific Conservation Action Plan (NOWPAP), North East Asian Sub-regional Programme for Environmental Cooperation (NEASPEC), East Asia Cooperation Organisation for Marine Environment Management (PEMSEA), Tripartite Environment Ministers Meeting (TEMM) among RO Korea, China and Japan, IOC/WESTPAC, East Asia Ocean Coordinating Organisation (COBSEA), and the Arctic Council.

Furthermore, RO Korea maintains several bilateral cooperation mechanisms with China, Japan and Russia.

Regional Collaborative Mechanisms Focusing on North East Asia:

• Northwest Pacific Action Plan (NOWPAP)

The NOWPAP is a regional sea project of UNEP, aiming to strengthen inter-governmental cooperation for conservation of the marine environment and sustainable development of international cooperation in the North West Pacific region. Currently RO Korean, Chinese, Japanese and Russian governments are members of NOWPAP.

This is a Regional Activity Centre (RAC)-based institution. Four RACs are located in four different countries. The Special Monitoring and Coastal Environment Assessment RAC (CEARAC) is located in Toyama, Japan. The Data and information Network RAC (DINRAC) is located in Beijing, China. The Pollution Monitoring RAC (POMRAC) is located in Vladivostok, Russia. The Marine Environmental Emergency Preparedness and Response RAC is located in Daejeon, RO Korea.

The NOWPAP operates via international cooperation including main neighbouring countries in the North West Pacific region and serves to untangle current core issues of neighbouring seas in the North West Pacific.

Collaborative mechanisms covering both South East and North East Asian Regions:
• **Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)**

PEMSEA is an inter-governmental organisation established for the conservation and sustainable utilisation of marine ecosystems and is comprised of 11 countries and 22 non-governmental organisations. In the recent decade, PEMSEA has developed a number of activities through intergovernmental, interagency and multispectral partnerships.

Additionally, PEMSEA hosts the ‘East Asian Sea Congress’, which is a minister-level congress for devising and contemplating international strategies, every 3 years. In the congress of November 2018 in Philippines’ Iloilo, PEMSEA adopted ‘The Iloilo Declaration’, which promoted international collaboration for conservation of the marine environment.

• **IOC/WESTPAC**

IOC/WESTPAC is a regional subsidiary committee of the Intergovernmental Oceanographic Commission (IOC), and the primary objective of IOC/WESTPAC is to promote development and coordination of marine science research programmes, ocean services and ocean related activities. As of 2019, IOC/WESTPAC has twenty members including France, UK, the United States and seventeen Asian countries.

An IOC/WESTPAC general meeting is held every 3 years, and the office is located in Bangkok, Thailand. Its main activities are focused on ocean dynamics and climate, research and monitoring marine pollution, fisheries resources, non-biological resources, and ocean observation systems in the Far East Asia region, placing emphasis on research on natural science and monitoring the environment.

**Other Regional Mechanisms Related to Marine Environment:**

• **The Arctic Council**

The Arctic Council was established in 1996 by the Ottawa Declaration with 8 Arctic Circle countries. The members of the Arctic Council are Norway, Denmark, Russia, the United States, Sweden, Iceland, Canada and Finland; countries adjacent to the Arctic. 13 non-Artic Circle countries including RO Korea, 13 international organisations such as the UNDP, and 13 NGOs are also taking part as observers. The main office of the Arctic Council was placed in Tromsø, Norway, in accordance to the Nuuk Declaration in 2011.

The ministerial meeting takes place biyearly, while high-level management committees convene twice a year and constitutes of 6 working group meetings. Their main purpose revolves around the welfare of the residents of the Arctic region, preservation of native Arctic traditions, maintaining biodiversity, protecting natural resources in the Arctic, and the region’s sustainable development.

**Concluding Remarks:**

As the previous list indicates, RO Korea partakes in organisations concerned with matters such as marine pollution, sustainable development, facilitating collaboration and exchange of marine science and technology, monitoring the status of maritime events, and developing regional policies, with a focus on marine environment and sustainable development.
Such cooperative efforts have been made based on the principles of sustainable utilisation and conservation of marine resources, with effective regional governance. In this sense, the YSLME project has been highlighted as the most successful mechanism at the regional level in North East Asia.

Bilateral Mechanisms:

Bilateral Mechanisms of RO Korea

The bilateral collaboration mechanisms that RO Korea participates in can be divided into three categories: one, those implementing global ocean policies focusing on technological development, two, those that are more relevant to the management of marine environment in the Yellow Sea, mainly about mechanisms on cooperation with neighbouring countries such as China, Japan, and Russia, and third, those of bilateral cooperation with the US, UK, Indonesia and Peru, which are to be developed.

The representative cooperation mechanisms involving the RO Korean government are summarised as follows:

• **RO Korea-China Environment Cooperation Committee**
  
  This Committee performs a landmark role in addressing issues regarding the marine environment between RO Korean and China. The committee maintains a cooperation system of scientists from both countries by organising approximately 10 joint projects every year. Along with allowing an exchange of opinions about policies, the committee also operates a current issue-solving programme that is substantially necessary.

• **RO Korea-Japan Marine Environment Exchange and Cooperation Conference**
  
  This inter-governmental panel was organised primarily by the Japanese Ministry of Land Infrastructure and Transport and the RO Korean Ministry of Ocean and Fisheries in 2005 and has since held 13 annual meetings. At this conference, the most important current issue or agenda necessary for cooperation are discussed between the two countries. Furthermore, they discuss major agendas of regional organisations such as NOWPAP, PEMSEA according to their own needs.

• **RO Korea-Japan Environment cooperation Committee**
  
  This committee has held a total of 19 working group meetings. It also functions as a channel for cooperation on marine environment agendas between RO Korea and Japan. The committee generates synergy by appropriately managing and directing discussion on common issues, which require contemplation and agreements between both countries.

  In particular, it serves as a channel for discussing delicate issues between the two countries, such as drifting marine litter and radioactive contaminations from the coastal waters of Japan. Moreover, it provides opportunities to shed light on various topics based on shared scientific insight from researchers, as it promotes around 10 joint project cases every year.

• **RO Korea-Russia Environment Cooperation Committee**
This committee is led by the RO Korean Ministry of Foreign Affairs, RO Korea and the Russian Ministry of Natural Resources and Environment. Discussions about policies for and technology on marine environment promotes cooperation between RO Korea and Russia. In addition, the committee provides opportunities to enhance mutual cooperation and challenges their insights on global issues including marine environmental problems, CBD and UNFCCC.

The committee also reinforces collaboration between RO Korean and Russian scientists by steering approximately 15 projects every year.

- **RO Korea - US Environmental Cooperation Committee**

This mechanism was established by the signing of the “RO Korea-US Maritime Science Agreement” with NOAA of USA (’10), with the aim of exchanging technology and establishing education programmes comprised of 4 panels for the management of fisheries resources and mariculture. However at the time of writing, the degree of cooperative work through this committee is relatively scarce compared to that of other committees.

- **Others**

The RO Korean government has also built the “Ocean Science and Technology Joint Research Centre” in China, Peru and Indonesia, respectively. The centre carries out missions to promote marine science and technological cooperation and to facilitate the sustainable use of marine resources between the two countries.

The common features of these centres are that they were each established by the signing of an MOU on “Marine Science and Technology Cooperation” and that they operate as groups by pooling their funds as follow-up measures. The primary mission and field of promotion of each centre are determined by agreement based on the demands between both countries.

**Concluding Remarks:**

Generally, the bilateral cooperation mechanism that RO Korea participates in focuses on issues of marine environmental conservation, collaboration on science and technology, and exchanging expertise and policies on the mutual concerns. These mechanisms have mainly been regular, and cooperative in their nature but lacking permanent status. They also tend to have been implemented by committees or other cooperative meetings. The scope of cooperation or discussion tends to be limited, and the consistency in creating effective outcomes has been difficult to maintain.

Furthermore, several ministries, such as the Ministry of Oceans and Fisheries, the Ministry of Foreign Affairs and the Ministry of Environment, have been involved in implementing bilateral cooperative mechanisms.
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