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Regional Overview of Legal Aspects of the Protection and Management of the Marine and Coastal Environment of the Northwest Pacific Region

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Preface

This regional overview is prepared according to Resolution 7 of the Tenth Intergovernmental Meeting held in Toyama, Japan on 24-26 November 2005. Recognizing the need to reflect the current national status of environmental legislation, the meeting decided to update the regional overview of national environmental legislation, objectives, strategies and policies (NOWPAP/2 project) which was prepared several years ago.

This regional overview had been finalized based primarily on the latest data and information provided by NOWPAP member states. It focuses on introducing the existing national and international legal frameworks in NOWPAP member states related to environmental protection. This regional overview provides useful information for people who may be interested to take a glimpse at the current situation in the region.

DINRAC would like to acknowledge the contribution of national experts and consultant to the finalization of this publication.

**Regional Overview of Legal Aspects of the Protection and
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the Northwest Pacific Region**

July 2007

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Regional Overview of Legal Aspects of the Protection and Management of the Marine and Coastal Environment of the Northwest Pacific Region¹

1. Introduction

1.1. Scope and Purpose

This is a regional overview of the existing legal frameworks for the protection, management and development of the marine and coastal environment in the Northwest Pacific region under the NOWPAP (Northwest Pacific Action Plan) of the UNEP Regional Seas Programme. The NOWPAP region covers a geographic area from about 121⁰E to 143⁰E longitude and from approximately 52⁰N to 33⁰N latitude. There are currently four states participating in this Action Plan in this region, namely (in alphabetical order) the People's Republic of China (hereafter referred as China), Japan, the Republic of Korea (hereafter referred as Korea) and the Russian Federation (hereafter referred to as Russia which only covers however the Russian Far East).

NOWPAP was adopted at the First Intergovernmental Meeting (IGM) on 14 September 1994 in Seoul, Republic of Korea. A survey of national environmental legislation, objectives, strategies and policies (NOWPAP/2) was identified as one of the priority activities to be undertaken. As requested by the IGM, the Fifth Meeting of Technical Experts and National Focal Points (Bangkok, November 1995) recommended preparing a programme document to implement these activities. A draft was prepared and distributed for comments among NOWPAP National Focal Points in June 1996 and further discussed and finalized at the Ad Hoc Meeting of Technical Experts (Bangkok, September 1996). In the programme document submitted to the 2nd IGM (Tokyo, November 1996), UNEP Environmental Law and Institutions Programme Activity Centre (UNEP-ELI/PAC) was designated as implementing body to carry out NOWPAP/2 in cooperation with the UN Division for Ocean Affairs and Law of the Sea (UNDOALOS).

In order to carry out the NOWPAP/2 project, UNEP-ELI/PAC designated a project coordinator and each NOWPAP Member State nominated a contact institution as a focal point.

¹ Drafted by Song Ying from Peking University, and finalized by Guifang (Julia) Xue from the Institute for the

According to a format prepared by UNEP/ELI-PAC for the survey, each contact institution identified national experts to collect information on national environmental legislation, objectives, strategies, and policies relevant to marine and coastal environment within the Member State. Based on the collected information, a national report was prepared by the national experts of each Member State. Based on the national reports compiled in 1998 by all NOWPAP Member States, an international consultant, supervised by UNEP-ELI/PAC and UNEP-Water, prepared “A Regional Overview of Legal Aspects of the Protection and Management of the Marine and Coastal Environment of the Northwest Pacific Region” in 2000.

The draft overview was not distributed immediately after its completion, and needed to be updated to match the development of marine legislation in NOWPAP Member States. The information update from each Member State for NOWPAP/2 project was completed in 2005. Based on the updated information, an international consultant, supervised by NOWPAP DINRAC, finalized the overview.

The overall goal of this Action Plan 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 region’s sustainability for future generations.² In order to achieve this goal, five principal objectives have been identified:³

- a. to assess regional marine environmental conditions by coordinating and integrating monitoring and data-gathering systems on a regional basis, making the best use of the expertise and facilities available within the region on a collective and consistent basis;
- b. to collate and record environmental data and information to form a comprehensive database and information management system which will serve as a repository of all relevant available data, act as the sound basis for decision-making, and serve as a source of information and education for specialists, administrators and others throughout the region;
- c. to develop and adopt a harmonious approach towards coastal and marine environmental planning on an integrated basis and in a pre-emptive, predictive and

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² UNEP, “Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region”, NOWPAP Publication No.1, UNEP 1997, at 2.

³ *Ibid*, 3-6.

precautionary manner;

- d. to develop and adopt a harmonious approach towards the integrated management of the coastal and marine environment and its resources, in a manner which combines protection, restoration, conservation and sustainable use;
- e. to develop and adopt a regional framework for collaboration in the management of contiguous bodies of water and cooperation in the protection of common resources as well as in the prevention of coastal and marine pollution.

The following report, a component of the NOWPAP/2, is an integral part of the implementation of the above goals and objectives. The purpose is to conduct a survey on existing legal frameworks for protection, management and development of marine and coastal environment in the four NOWPAP states. It will cover both international and national aspects. In the international aspect, it will provide a brief review of international instruments and international organizations relevant to this region. In the national aspect, it will focus on the national measures on those crucial issues in the protection, management and development of marine and coastal environment in these states.

1.2. Sources of Information & Methodology

The primary source of information of this report is the four national reports submitted by the national experts for this project.⁴ Moreover, other sources are also used. They include the following: (1) official documents of relevant international organizations and governments; (2) on-line databases; (3) academic works, i.e. books, journal articles and (4) updated information provided by competent focal points or national experts from the NOWPAP states in 2006; (5) other documents and materials. The reference of the sources is provided in the footnotes of this report.

This report is not intended to examine the sufficiency, efficiency and effectiveness of relevant national laws. It will only focus on the description of the existing international and national legal frameworks in this area. Hopefully, it will serve as a basis for the

⁴ Japan, "National Report on Legal Aspects of Protection of the Marine, Coastal Environment of the Northwest Pacific Region", 1998 (hereafter referred as the "Japan Report"); Ocean University of Qingdao, "China National Report on Legal Aspects of Protection of Marine and Coastal Environment of the Northwest Pacific Region", 30 June 1998 (hereafter referred as the "China Report"); Ji-Hyun Lee, Yong-Hee Lee & Moon-Sang Kwon, "A National Report on Legal Aspects of Protection of the Marine and Coastal Environment of the Northwest Pacific Region", February 1998 (hereafter referred as the "Korea Report"); Alexander Solovianov, "Survey of National Environmental Legislation, Objectives, Strategies and Policies - National Report of the Russian Federation", 1998 (hereafter referred as the "Russia Report"). The above four reports were updated respectively in 2006.

implementation of NOWPAP activities and for future regional efforts to improve the protection, management and development of marine and coastal environment in this region.

1.3. Summary of this Regional Overview

This overview is divided into the following five parts: a. a brief view of the economic and environmental features in the NOWPAP region; b. overview of the legal frameworks of the NOWPAP states; c. international aspect; d. national aspect; e. conclusions and suggestions.

It has to be noted that marine environmental problems are ever more alarming. No single state can possibly solve these problems alone. Coordinated measures are crucial. Up till now, the NOWPAP states have participated in most of the important multilateral environmental treaties and relevant domestic legal frameworks have been established. But in comparison with other regional environmental arrangements, the NOWPAP states still need to conduct more active regional cooperation in meeting environmental challenges, especially in the area of marine environment protection and coastal development. Secondly, effective implementation of regional measures is crucial to the success of regional arrangements, however, certain gaps exist in this aspect. At the same time, effective implementation should also take into account the differences among the NOWPAP states in economic, social, political and environmental aspects. There should be certain flexibility in the regional arrangements. And the principle of “common but differentiated responsibility” should play a role in the NOWPAP arrangements.

2. Economic & Environmental Features of the NOWPAP Region

2.1. Economic Features of the NOWPAP Region

The four states of the NOWPAP region, though located geographically close to each other, have quite different economic features. The following table is a summary of these features: *

| NOW-PAP States | GNI US\$ per capita 2005 | Population (Millions) | GNI(US\$ 2005 (billion) | GDP Per capita Growth (2004-05) (%) | Value added as % of GDP (2005) | | | Electricity Use per capita(kwh) (2003) |
|----------------|--------------------------|-----------------------|-------------------------|-------------------------------------|--------------------------------|------|------|--|
| | | | | | Ag % | In % | Se % | |
| China | 1740 | 1305 | 2263.8 | 9.2 | 13 | 46 | 41 | 1680 |
| Japan | 38980 | 128 | 4988.2 | 2.6 | 1 | 31 | 68 | 7818 |
| Korea | 15830 | 48 | 764.7 | 3.5 | 4 | 41 | 55 | 7018 |
| Russia | 4460 | 143 | 639.1 | 6.9 | 6 | 38 | 56 | 5480 |

Sources:

* World Bank, *World Development Report 2007: Development and the Next Generation*, Washington, DC, pp288-289; pp294-295. Available from: <http://www.worldbank.org>.

According to the classification of the World Bank, the four NOWPAP states may be divided into two groups in terms of GNP per capita: (1) High income economies - Japan and Korea; (2) Lower middle income economies - Russia and China. In terms of population, China has the biggest population, more than four times the total of the other three states. So far as the GDP is concerned, Japan has the biggest economy compare with the other three states. The annual GDP per capita growth rates are also different. Japan and Korea are below 4% while China and Korea are above 6%. In terms of components of GDP, Japan, Korea and Russia have similar pattern - agriculture accounting for the smallest share (1%-6%) and service taking the largest share (55%-68%). In Japan, agriculture takes only 1%, but service takes 68%. In China, the pattern is completely different. Although agriculture is also the smallest share, it is still 13%. Industry takes the largest share - 46%, which is almost of a half of the GDP coming from industry. Taking into account of the annual growth rates of the GDP, it may indicate that China is on the way of rapid industrialization but the other three states have already passed that period. In terms of electricity use per capita, China is well below the average of the other three states. These economic features of the NOWPAP states have produced a substantial impact on the environmental features of this region, the priorities of the government policies and eventually of laws.

2.2.Environmental Features in Asia and the Pacific

The NOWPAP states are located in the northeast of Asia and northwest of the Pacific Ocean. As an integral part of the Asia and the Pacific, the NOWPAP region shares the environmental features of the Asia and the Pacific.

The Asia-Pacific region embraced two of the world largest oceans, the Pacific and the

Indian. It also contains three of the largest and most populous states in the world, China, India and Indonesia. With only 23% of the world total land area, it is home to about 58% of world population.⁵ Although this region has witnessed rapid industrialization and economic growth rates in the past decade, poverty still persists. Therefore economic and social development is often high on the agenda of the respective governments in this region vis-à-vis other policy areas, e.g. environment. Demand for primary energy in Asia is expected to double every 12 years while the world average is every 28 years.⁶ Big population and high economic growth rate exerts heavy pressure on the environment and natural resources in this region. The major environmental concerns include land degradation, deforestation, declining availability of fresh water and deteriorating water quality and the degradation of marine and coastal resources.

In the aspect of marine and coastal environment, most of the population of this region lives along the coast as about 1/4 of the world's 75 largest cities are located near or along the coastlines. Marine resources are economically important to most states of this region. About 47% of world fisheries production comes from this region. It is also the centre of global mariculture that takes 87% of the world production.⁷ On one side of the problem of marine and coastal environment is over-exploitation of the living resources. On the other is land-based, sea-based and ship-based pollution. As much as 70% of waste effluent discharged into the Pacific Ocean has no prior treatment. Shipping accidents, offshore mineral exploration and production activities, increasing use of agro-chemicals, coastal development activities all contributed to the ever-alarming problems of marine and coastal environment in this region.

2.3. Marine Environmental Features of the NOWPAP Region

The NOWPAP region is surrounded by land, and is connected to the East China Sea in the south. The surrounding land ranges from high mountains to vast plain, from fertile river valleys to dry lands, from densely populated areas to area with sparse population.⁸ China and Russia are states of the continent. In the west, high population exists in the vast plains of the Yellow River and Changjiang (Yangtze) River. The two river basins are highly cultivated. However, the Far East of Russia is sparsely populated. Japan, consisting of islands, has high

⁵ UNEP, *Global Environment Outlook*, Chapter 2: Regional Perspectives, Oxford University Press, 1997, 42-60; UNEP, *GEO-2000*, Overview, United Nations Environmental Programme, 1999.

⁶ *Ibid.*, *GEO-2000*, Overview.

⁷ *Ibid.*

⁸ UNEP (WATER) NOWPAP WG. 13/9, ANNEX V, at 4.

mountains in the centre with not much flat land on the coasts. Korea, located in the south of the Korean Peninsula, has a backbone of mountains with areas of flat land on its western side, some of which are densely populated.⁹

The National Reports on the State of the Marine, Coastal and Associated Freshwater Environments provided detailed information about the state and features of the marine environment of this region.¹⁰ The following only serves as a brief summary of selected environmental problems particularly relevant to legal frameworks for the protection and development of the marine and coastal environment in this region.

2.3.1. Eutrophication and Red Tides

Eutrophication of coastal waters is common, though to a varying degree, in all four states. In Korea, 61 cases of red tides were observed in 1996 but only 39 case reported in 2005.¹¹ In China, 22 cases of red tides were observed in 1998,¹² 29 cases in 2000. In 2005, 82 red tides were observed, 14 cases lesser than last year.¹³ In the eastern NOWPAP sea region, 24 cases of red tides were recorded during the period of 1994-1996.¹⁴ The occurrence of red tides not only caused heavy economic loss but also brought about significant negative impact on the coastal ecosystem in this region.

Several sources are considered contributing to the appearance of red tides. One of them is inadequate control and treatment of domestic effluents, e.g. effluents from cooking, laundry, bathing and other household sources.¹⁵ Another source is the run-off from land and river. A project on the marine environment of the Hangzhou Bay of China, sponsored by the World Bank, indicated that about 88% of nitrates and 94% of phosphates input into the coastal waters comes from the Changjiang River, which carries agricultural fertilizers into the coastal waters as a result of water/soil erosion and flood. In fact, the contribution of industrial effluents is insignificant in this kind of marine pollution but the priority of the control of

⁹ Ibid.

¹⁰ See the “National Report on the State of the Marine, Coastal and Associated Freshwater Environments” submitted by the NOWPAP states at the Expert Workshop on Establishment of a Collaborative, Regional Monitoring Programme (NOWPAP/3), Vladivostok, Russian Federation, 1-3 July 1998.

¹¹ Red Tide Preventive Action Plan for 2006” Ministry of Maritime Affairs and Fisheries, 2006, p22.

¹² SEPA, “1998 Report on the State of Environment”, Zhongguo Huanjing Bao (China Environmental Newspaper), 17 June, 1999, at 2.

¹³ China, National Report on Ocean Disasters in 2005, available from: <http://www.soa.gov.cn/hygb/2005hyzh/3.htm>.

¹⁴ Japan “National Report on the State of the Marine, Coastal and Associated Freshwater Environment”, NOWPAP/3, 1998, at 30.

¹⁵ Ibid, at 5. See also UNEP (WATER) NOWPAP WG.13/9, ANNEX V, 4 -5.

water pollution was traditionally on industrial point sources for some time.¹⁶ In China, there were totally 31.7 billion tons domestic sewage discharged into the sea in 2005, of which, COD was about 740 thousand tons and ammonia-N was about 500 thousand tons, and inorganic nitrate, phosphate, heavy metal, petroleum etc. were 170 million tons in 2005, which was 170,000 tons less than that in 2002. According to estimation, about 44.120 million tons of fertilizers and 1.320 tons of pesticides were applied in coastal areas in 2004, and the proportion of fertilization was imbalanced. For example, the proportion of K: N: P was 1: 0.39: 0.22 in China, while the world average was 1: 0.6: 0.4. The organic fertilizers were 25% of the total, but the reasonable proportion should be 40%, and the microelement fertilizers were only 15%. 40~60% of the fertilizers were washed away, most of which entered into the seas around China with river or the surface runoff. Fertilizers and pesticides are the major sources of seawater eutrophication.

2.3.2. Oil Spills

Marine transport is an important part of production activity for this region, especially for Japan¹⁷, therefore accidental oil spills have been frequently reported. During the period of 1991-1996, a total of 1,970 cases of oil spill accidents took place in the Korean marine waters.¹⁸ In 1998 alone, over 20 cases of large-scale oil spills were reported in the coastal waters of China,¹⁹ totally more than 400 tons of petroleum spilled into the seas around China seas. Statistics shows that in 2005, about 16 oil spilling accidents with more than 0.1 ton of petroleum flowed into the sea, among which 1 accident with more than 5 tons, and 3 accident with more than 50 tons. In 1996, the Maritime Safety Agency of Japan confirmed 28 incidents of marine pollution off the north coast of Honshu, a decrease of 47 from 1995. Among the 47 cases, 19 cases were of oil pollution, 3 of chemical pollution and 6 of red tides.²⁰

¹⁶ ZHAO Xiao, "Bamai Bing Haiyang" (Examining the Sick Ocean), *Zhongguo Huanjing Bao* (China Environmental Newspaper), 19 June, 1999, at 3.

¹⁷ Japan has the world largest gross registered tons (1985) except for Liberia's and Panama's largest flag-of-convenience registration. See Baruch Boxer, "Marine Environmental Protection in the Seas of Japan and Okhotsk", *Ocean Development and International Law*, vol. 20, 1989, at 199.

¹⁸ Ji-Hyun Lee, Yong-Hee Lee, & Moon-Sang Kwon, Korea "National Report on Legal Aspects of Protection of the Marine and Coastal Environment of the Northwest Pacific Region", NOWPAP/2, 1998, at 2.

¹⁹ SEPA, *supra* note 12, at 2.

²⁰ Japan, *supra* note 13, at 11.

2.3.3. Habitats Destruction

Loss of coastal habitats, as a result of coastal development has also produced impact on marine environment. Land reclamation has been an issue in Japan and Korea. Recent years have seen this occurring more and more often in China. Reclamation of wetlands on the western coast is one of the major environmental problems of the coastal areas in Korea.²¹

2.3.4. Over-fishing

Marine living resources are economically important to this region. According to the statistics from the Food and Agriculture Organization (FAO) of the United Nations (UN), from 1995 to 2001, the catch from the Northwest Pacific region (Area 61) has been the largest among the 19 fishing areas of the world.²² China, Japan, and Korea are the major fishing states of the region, and they are also rated among the world's top fishing powers. The fisheries industry plays an important part in their international trade and national economies, and contributes considerably to their GDPs.²³ More than 66% of the world's total fish supply is produced in this region.²⁴ Major seafood markets in Japan and Korea play a considerable role in increasing the intensity of fishing activities.²⁵

Unfortunately, a major cause of concern is over-fishing and the use of destructive fishing methods in this region. It is observed that most fish stocks throughout the whole Asia-Pacific region are currently being fully harvested, while a number are being exploited at unsustainable levels.²⁶ Other causes of the decrease of marine fisheries resources include coastal erosion resulted from ground water extraction, coastal construction, salt-making, offshore sand-mining, waste-dumping and marine transportation.²⁷

The above description of the problems of the marine environment in the NOWPAP region clearly indicates that these problems, though to varying degrees and of different priority in different states, are shared rather than isolated problems. Regional cooperation is

²¹ Korea, *supra* note 11, at 14.

²² For statistical purposes, the oceans and inland waters are divided and numbered as standard FAO fishing areas. In total, there are 7 inland fishing areas and 19 marine fishing areas. For the detailed divisions of FAO statistical areas, see ftp://ftp.fao.org/fi/maps/world_2003.gif.

²³ <http://www.wwf.net.org>.

²⁴ The average world consumption of fish per capita is between 16 kg to 20 kg, but Korea and Japan is 50 kg/cap/year. See M. Gates and J. Cho, "The benefits from Korean-Japanese cooperative management of transnational fisheries resources," *Korea Observer* Seoul, Winter (1999), p. 623.

²⁵ Tsutomu Fuse, "Some observation on mechanisms for decision-making and the execution of an integrated ocean policy in Japan", in Peter Bautista Payoyo ed. *Ocean Governance - Sustainable Development of the Seas*, United Nations University Press, Tokyo, 1994, at 128.

²⁶ UNEP, *supra* note 5, at 51.

crucial and urgently needed in solving these problems.

3. Overview of the Legal Frameworks for Environmental Protection in the NOWPAP States

An overview of the legal frameworks for environmental protection in the NOWPAP states is necessary before examining the detailed international and national aspects. This is because, firstly, those marine environmental laws are an indispensable part of environmental law and the legal system as a whole. Secondly, such an overview will contribute to a better understanding of the current marine environmental laws.

This part covers the following four aspects: historical evolution; substantive law; administrative regimes and dispute settlement mechanism.

3.1. Historical Evolution

In reviewing the historical evolution of the legal frameworks for environmental protection in the NOWPAP states, two observations may be made. The first is that industrialization and its related environmental problems triggered the development of environmental law. The second is that there is close link and interaction between development in international environmental law and that in domestic environmental law.

3.1.1. Industrialization and Environmental Law

Industrialization created much wealth but also a lot of pollution and environmental degradation, especially at its earlier stage. Many states, including the NOWPAP states as well, have experienced the following stages: industrialization ~ pollution ~ pollution damages ~ awareness for the control of pollution ~ control of pollution by environmental law.

In the NOWPAP states, Japan took a lead in developing its environmental laws because industrialization started earlier in Japan than in other states in this region. In 1870s, the Meiji government promoted “production enhancement” in order to transform the state into a modern

²⁷ Ibid.

industrialized state.²⁸ Unfortunately Ashio mining pollution was an unavoidable result then. The Japanese economy entered into a period of high-growth in 1960s, industrial wastes were discharged without being properly controlled or treated. For example, industrial effluent became a public hazard, causing various diseases, e.g. Minamata disease, Niigata Minamata disease and the “ouch-ouch” disease of Toyama. Industrialization is good but demands regulation, especially when the negative impact has caused much social concern. In late 1950s and early 1960s, several environmental laws were passed dealing with the issues of industrial wastes. In 1967, the Basic Law for Environmental Pollution Control was enacted in order to adopt more systematic approach towards environmental regulation. Stronger actions were taken by the “Pollution Parliament” in 1970s. The Diet session in 1970 passed 14 more detailed pollution control laws. In 1971, the Environment Agency was established.²⁹ In 1972, the Natural Environment Preservation law was enacted and the legal framework for environmental protection became more and more sophisticated. In accordance with the worldwide rise of concern on the environment, *inter alia*, global environment conservation in early 1990s where the United Nations Conference on Environment and Development was held, Japan replaced the Basic Law for Environment Pollution Control in 1992 to the Basic Environment Law in which new concept of environment protection such as the necessity of the global environment conservation was incorporated.

Korean citizens’ right to a better environment is stated in Article 35 of the nations Constitution. The "Pollution Prevention Act" was passed in 1963. Environmental issues were viewed strategically after Korea participated in the Stockholm Conference in 1972.

Although the first environmental legislation, the Pollution Prevention Act, was passed in 1963, environmental issues began to be viewed strategically important after Korea participated in the Stockholm Conference in 1972.³⁰ Starting with Third (1972-1976) and Fourth (1977-1981) Five-Year Economic Development Plan, the Korean government gradually took serious steps toward environmental matters. *In 1977, the Environment Conservation Act and Marine Pollution Prevention Act were enacted. The Environment Conservation Act laid down, for the first time, the legal foundation for important pollution control measures, such as the environmental impact assessment (EIA) system and standards for water, air, soil, natural environment, noise, etc. In 1990s, the Environment Conservation*

²⁸ Northwest Pacific Area Environmental Cooperation Centre, *The Basic Environmental Plan and Examples of Other Legislative Measures*, Toyama Prefecture, March 1998, 1-5.

²⁹ Julian Gresser, Koichiro Fujikura & Akio Morishima, *Environmental Law in Japan*, The MIT Press, 1981, xvii-xix.

³⁰ Ji-Hyun Lee, Hong-Hee Lee, Moon-Sang Kwon, *supra* note 17, at 14.

Act was replaced by the Framework Act on Environmental Policy (1990) and several sectoral environmental acts were also enacted, i.e. the Water Quality Conservation Act, the Clean Air Conservation Act, the Noise and Vibration Control Act, and the Toxic Chemicals Control Act, etc. At present, 39 laws provide the legal framework for the protection of the environment and control of pollution in Korea.

3.1.2. International Environmental Law and Domestic Environmental Law

Another observation is that there is a close link and interaction between the development of environmental law at both international and national level. A good example is the 1972 Stockholm Conference, which started a new round of national legislations on marine environmental protection in the four NOWPAP states.

Although several administrative regulations were passed concerning environmental pollution in China, it was only after the 1972 Stockholm Conference that environmental protection was put on the agenda of the government. In 1973, the first national conference on environmental protection was held. In 1974, the State Council issued “Provisional Rules on the Prevention and Control of Coastal Marine Pollution of the People’s Republic of China”. It is the first administrative law concerning marine pollution in China, which provided more detailed rules on the ship-based pollution. In 1979, the basic law for environmental protection, the “Environmental Protection Law of the People’s Republic of China”, was promulgated on a trial basis, and formally entered into force 10 years later in 1989. It marks the beginning of the establishment of the legal framework of environmental protection in China. The 1980s was the most active period in Chinese environmental legislation. Many environmental laws were passed, e.g. the “Marine Environmental Protection Law”³¹ (1999), the “Water Pollution Prevention and Control Law” (1984), the “Air Pollution Prevention and Control Law” (1987), the “Noise Pollution Prevention and Control Law” (1989), etc. During the same period of time, attention was also given to environmental protection in other laws, e.g. the “General Principles of Civil Law” (1986) provides civil liability for damages caused by environmental pollution (Article 124).

From the late 1990s to the early 2000s, a series of concrete measures have been taken in China for effective implementation of international environmental laws. Major laws of this kind and some actions taken by China in this regard are summarised below:

- a. Marine Environmental Protection Law of the People’s Republic of China (MEPL):

³¹ It was revised by the Standing Committee of the National People’s Congress on 25 December 1999.

was amended at the 13th Session of the Standing Committee of the 9th National People's Congress (NPC) of China on 25 December 1999 came into force on 1 April 2000. The MEPL applies to China's internal waters, territorial sea, contiguous zone, exclusive economic zone (EEZ) and continental shelf, and other seawaters under China's jurisdiction. This law also applies to the discharge of harmful substances and the dumping of wastes beyond the jurisdiction of China, but causing pollution damage to such areas. The law specified the responsibilities of the competent authorities for the monitoring and protection of marine environment, and stipulates rules and measures to protect marine environment and marine ecosystem, to control and prevent damages from land-based pollution, coastal construction projects, marine construction projects, waste-dumping, shipping and related operation etc. Meanwhile, it set forth legal liabilities on the violation of the law. Another significant amendment is that some important articles on the harmonisation of domestic law related to international conventions were incorporated into the law. It specifies that "if an international treaty regarding environment protection concluded or acceded to by the People's Republic of China contains provisions differing from those contained in this law, the provisions of the international treaty shall apply, unless the provisions are ones which the People's Republic of China has announced reservations." This article indicates the determination of Chinese government in the implementation of international conventions. This is favourable to improve China's domestic institutions on marine environmental protection.

b. Decision on the Revision of the Fisheries Law of the People's of Republic of China: it was adopted on the 18th Session of the 9th NPC on 31 October 2000 and became effective as of 1 December 2000. The amended Fisheries Law of China takes into consideration of the UN Fish Stock Agreement (Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks) and also the agreements China signed with Korea and Japan (Fisheries Agreement between the People's Republic of China and the Republic of Korea, signed in November 2000 and into effect in June 2001; Fisheries Agreement between the People's Republic of China and Japan, signed in November 1997 and came into force in June 2000).³² In addition, the amended Fisheries Law of China incorporates the requirements on the protection of marine environment and rational use of marine living resources. It sets forth "Total Allowable Catch (TAC)" regime, the

³² For the English version of the two fisheries agreements, see Guifang Xue. China and International Fisheries Law and Policy, Martinus Nijhoff Publishers, Leiden, 2005, 295-305.

fishing license regime for fishing vessels on the high sea, and the regime on ecological-environment protection of fisheries waters.

c. Law on the Use and Management of Sea Areas of the People's Republic of China: it was adopted on the 24th conference of the 9th NPC on 27 October 2001 and became effective on 1 January 2002. One of its most important objectives is "to protect and improve the ecological environment, to keep the sustainable utilization of sea waters and to enhance the development of marine economics". It established the "Sea Areas Functional Zoning" regime. This regime has been carried out throughout the coastal provinces of China.

d. The State Environmental Protection Administration (SEPA) of China issued an administrative regulation on Functional Zoning of Coastal Environment on 1 April 2000. According to the regulation, China's coastal areas were divided into 651 environmental functioning zones, including 80 zones of class 1 in water quality, 268 zones of class 2, 73 zones of class 3 and 230 zones of class 4. Accordingly, the SEPA issued "Administrative Methods on the Coastal Environmentally Functional Zones and Vocational Standard for Environmental Protection in the People's Republic of China", "Technical Guidelines for the Functional Zoning of Coastal Environment" (HJ/T82-2001) on 10 December 1999. Once the functional zones on sea areas being approved by the State Council, they are subject to legal actions and effects. Utilization and exploitation of marine resources and other activities which will affect marine environment in coastal waters must meet the requirements of functional zones of coastal environment.

e. To enforce the revised Marine Environmental Protection Law of China and to fulfill the obligation provided by the "International Convention on Oil Pollution Preparedness, Response and Cooperation" (OPRC1990), the Ministry of Communications of China and the SEPA jointly issued "Contingency Response Plans for Ship Oil-Spilling in China's Seas", "Contingency Response Plans for Oil-Spilling in the Beihai (also "North Sea": the Bohai Sea and the Yellow Sea are collectively called North Sea in China) ", "Contingency Response Plans for Oil-Spilling in the East Sea (also East China Sea)", "Contingency Response Plans for Oil-Spilling in the South Sea (also South China Sea)", and "Contingency Response Plans for Oil-Spilling in Taiwan Strait". These Contingency response plans came into effect on 1 April 2000.

f. The State Council of China approved the "Blue Sea Action Plan of Bohai Sea" proposed by the State Environmental Protection Administration on 1 October 2001. Within

the framework of Global Programme Action for the Protection of the Marine Environment from Land-based Activities, the State Council planned to invest 60 billion RMB Yuan to control the pollution of the Bohai Sea. With the effective treatment of land-based pollutants, the pollution of Bohai Sea will be controlled and the deterioration of ecological environment be relieved. Discharge of land-based COD into Bohai Sea will be reduced by 10%. By the year of 2010, environmental quality of the Bohai Sea is expected to be improved substantially, ecological and environmental damage will be effectively controlled, discharge of land-based COD, phosphate and inorganic nitrogen, and petroleum oil will be reduced by 10%, 15% and 20%, respectively, in comparison with those of 2005. By the year of 2015, the environmental quality of the Bohai Sea will be improved remarkably and the ecosystem is expected to be restored.

g. In order to enhance navigational safety, to prevent oil pollution from ships and other illegal activities, and to reduce traffic accidents, the State Council of China reformed the administrative system on navigational safety in 1998 and established the Maritime Safety Administration of the People's Republic of China. Its functions cover coastal (including islands) waters and harbours, open waters, large rivers with outlets into the sea and their harbours (e.g. Yangtze River, Pearl River, Heilongjiang River). The Maritime Safety Administration is also responsible for implementation of more than 20 conventions of the IMO, including the International Convention for the Prevention of Pollution from Ships (MARPOL73/78).

h. The State Council approved the "Functional Zoning of China Seas" proposed by the State Oceanic Administration (SOA) together with other ministries as well as the coastal provincial governments on 8 August 2002. The zoning scheme divides the internal waters and territorial seas of China into 10 categories: harbour and shipping, fishery resources utilization and protection, mineral resources utilization, tourism, seawater resources utilization, marine energy utilization, engineering sea area, marine conservation area, reserved area. This scheme also specified the principal functions of 30 important sea areas so as to get scientific evidence for enhancing the monitoring and management of marine environmental protection.

i. Other regulations regard environmental protection include the amended Law on Prevention and Control of Pollution Caused by Solid Waste of PRC approved by the NPC on 29 December 2004, and the Measures on Permit for Operation of Hazardous Wastes, approved by the State Council on 30 May 2004. In recent years, SEPA, together with other related departments, has issued the Measures on Administrative Penalty for Management of

Medical Wastes, the Measures on the Administration of Cement in Bulk, the Interim Measures on Examination and Verification of Clean Production. SEPA also issued the Measures on the Administration of Qualification Authentication for Operating Environmental Pollution Control Facilities, the Measures on the Administration of Recording Local Environmental Quality Standards and Pollutants Discharge Standards, and the Interim Measures on Administrative Permission Hearing for Environmental Protection.

Coinciding with domestic development of legal framework, China has also a member to many multilateral environmental agreements, including Convention on Biological Diversity, Vienna Convention, Stockholm Convention, Convention of Nuclear Security, etc. In order to implement these agreements, many domestic laws were promulgated. In addition, China has participated in the projects sponsored by international organisations designed to improve marine environment such as the “East Asian Sea Action Plan”, the “Northwest Pacific Region Action Plan”, the projects of South China Sea,³³ and the Yellow Sea Large Marine Ecosystem Project sponsored by the Global Environment Fund and contracted by the Government of People’s Republic of China and Republic of Korea.

The major ocean-related environmental law of Korea was enacted in 1977 to protect ocean from pollution. The Marine Pollution Prevention Act (MPPA) of 1977 regulates pollution from ships and land-based pollution by designation of special management area, in which the total daily maximum load (TMDL) system can be applied. With the creation of the Ministry of Maritime Affairs and Fisheries (MOMAF) in 1996, the MPPA is administered by MOMAF. The MPPA is under major reformation in 2006 to take a role as an umbrella law for the protection of ocean from all sources of pollution including land-based activities.

Korea ratified many environment-related international conventions such as United Nations Framework Convention on Climate Change (UNFCCC), London Convention, Convention on Biodiversity (CBD), Convention on International Trade of Endangered Species (CITES), among others. These international conventions are accommodated to relevant environmental laws to regulate the internal activities in Korea.

In Russia there are following law and regulations, including those passed in Soviet times:

- Fundamental Principles of Water Legislation³⁴ (1970);
- On Measures to Further Improve Nature conservation and Rational Utilization of natural Resources (1972);

³³ For recent development of the project, see: <http://www.unepscs.org/>.

³⁴ W.E. Butler, *Soviet Law*, Butterworths, London, 1988, 274-275.

- Decree on Enhanced Responsibility for Sea Pollution with Substances Harmful for Human Health or for Living Resources of the Sea (1972);
- Resolution on Activation of Control of Sea Pollution with Substances harmful for Human Health or for Living Resources of the Sea³⁵ (1974);
- Law on the Protection of the Atmosphere (1980);
- Law on the Protection and Use of the Animal World (1980);
- Law on Specially Protected Natural Territories (1995 N174-FZ);
- Law on Continental Shelf of the Russian Federation (1995 N 187-FZ).
- Law on Exclusive Economic Zone of the Russian Federation,
- Law on Production and Consumption Wastes.

Regarding the legal status of international laws, Article 15 of the Russian Constitution, as well as Article 82 of the Federal Law on the Protection of Environment specify that international laws are superior to national laws (in case if a Russian law contradicts to an international one, the latter shall apply).

The Federal Law of the Russian Federation on the Environment Protection determines legal grounds of the policy for environmental protection, biological diversity and rational use of natural resources. The Law applies to the whole Russian territory, as well as its continental shelf and EEZ in accordance with the international laws.

Generally the Russian Law on the Environment Protection presents the reference point for further legislative development.

3.2. Substantive Law

3.2.1. Constitutional Provisions

A constitution is the supreme and fundamental law of a state. It represents the basic value shared by the people and also provides the basis for other laws, like environmental laws. The constitutions of the NOWPAP states have quite different features. The earliest one is the Japanese Constitution of 1946, which has not been amended, till the present. The next one is the Korean Constitution of 1948, which has been amended several times since then. The current Russian Constitution was passed by a national referendum in 1993. The current Chinese Constitution was passed in 1982 and amended several times. The latest amendment was made in 2004.

³⁵ Alexander Solovianov, "Survey of National Environmental Legislation, Objectives, Strategies and Policies - National Report of the Russian Federation", NOWPAP/2, Moscow, 1998, at 14.

The following 3 issues are particularly relevant to this report: incorporation of environmental protection and environmental rights into the constitutions; ownership of natural resources; relationship between international treaties and domestic law.

3.2.1.1. Incorporation of Environmental Protection and Environmental Rights into the Constitutions

Environmental protection became a policy issue only in recent decades. The current constitutions of the NOWPAP states were, however, adopted in a lapse of over 50 years so environmental protection was not incorporated in all these constitutions. But this could be remedied by constitutional interpretation if necessary.

The Japanese Constitution did not mention environment or environmental protection explicitly. However, two articles were interpreted as implicitly provided a constitutional basis for environmental protection and environmental rights.³⁶ The first article is Article 13. It provides that all of the people shall be respected as individuals. Their right to life, liberty, and the pursuit of happiness shall, to the extent that it does not interfere with the public welfare, be the supreme consideration in legislation and in other governmental affairs. The second one is Article 25. It declares that all people shall have the right to maintain the minimum standards of wholesome and cultured living. In all spheres of life, the State shall use its endeavours for the promotion and extension of social welfare and security and of public health. It is evident that happiness, minimum standards of wholesome and cultural living, social welfare and security and public health will not be made possible without environmental protection.

In Korea, the Constitution of the Fifth Republic (1980) guaranteed people the fundamental environment right to live in a clean and healthy environment. The Constitution of the Sixth Republic (1987) ensured not only the fundamental environment rights of the people but also the State's obligation of environmental conservation as a public policy statement.³⁷ Article 35 also stated that the State and all citizens shall endeavour to protect the environment and that the substance of the environmental rights is determined by law.

In China, a provision on environmental protection was first put into the Constitution in 1978. The current Constitution (2004) contains several provisions on environmental protection. For example, Article 9(2) provides, "the State ensures the rational use of natural

³⁶ Julian Gresser, Koichiro Fujikura & Akio Morishima, 1981, *supra* note 28, at 136.

³⁷ Ji-Hyun Lee, Hong-Hee Lee, Moon-Sang Kwon, *supra* note 17, at 16.

resources and protects rare animals and plants. The appropriation or damages of natural resources by any organization or individual by whatever means is prohibited.” Article 26(1) also provides that “the State protects and improves the living environment and the ecological environment, and prevents and remedies pollution and other public hazards.” Accordingly, it is a constitutional rule that the state has the obligation to protect the environment and to ensure rational use of natural resources. However, it does not mention “environmental rights”. These articles provide the constitutional basis for environmental legislation and enforcement.

Chapter 1 of the Russian Constitution (1993) provides that the natural resources are the property of the society and the state. Everyone shall have the right to a favourable environment, reliable information about its conditions and to compensation for the damages caused to his or her health or property by ecological violations (Article 42). Article 9 and Article 36 of the Russian Constitution set forth rules for the utilization and protection of the natural resources, and also the rights of citizens in using the natural resources and environment. The legislation on environmental protection and rational use of natural resources is based on the Russian Constitution. It consists of the Federal Law on the Environment Protection of 10 January 2001 N 7-FZ, other federal laws, and other normative legal acts of the Russian Federation.

3.2.1.2. Ownership of Natural Resources

Ownership of natural resources is particularly relevant because it may, to a large extent, determine how to regulate human activities in the course of protection and exploitation of natural resources and their subsequent impact on environment.

The Chinese Constitution explicitly provides that mineral resources, water, forests, mountains, grassland, un-reclaimed land, beaches and other natural resources are owned by the State, that is, by the whole people, with the exception of the forests, mountains, grassland, un-reclaimed land and beaches that are owned by collectives in accordance with the law (Article 9). Land in the cities is owned by the State. Land in the rural and suburban areas is owned by collectives except for those portions which belong to the State in accordance with the law; house sites and privately farmed plots of cropland and hilly land are owned by collectives (Article 10).

In China, all the sea areas are owned by the State. This is emphasised in the Law on the Use and Management of Sea Areas of the People’s Republic of China. This law provides that: “Sea areas are owned by the State and the State Council exercises ownership on behalf of the

State. No unit or individual is allowed to purchase, sale or transfer land by other ways. Sea area users shall obtain the user rights in accordance with the law.”

The former USSR Constitution also stipulated that all natural resources were owned by the State. However, the current Russian Constitution made substantial amendments in this aspect. Article 9 provides that the land and other natural resources may be in private, state municipal and other forms of ownership. Article 36 expressly guarantees that citizens and their associations shall have the right to have land in their private ownership. The possession, use and management of the land and other resources shall be freely exercised by their owners provided this does not cause damage to the environment or infringe upon the rights and interests of other persons. The terms and procedures for the use of land shall be determined on the basis of federal laws. One exception is observed in the Preamble of the Federal Law on SPNTs" that all specially protected natural territories are the objects of the nation-wide property. The new "Water Code of the Russian Federation" N 74-FZ, which entered into force on 1 January 2007, specifies that waters are the federal property. Ponds and watered quarries may be under the property of the RF, municipal entities, as well as physical and legal person.

Neither Japanese Constitution nor Korean Constitution expressly defined the ownership of natural resources. At least, private ownership of land and other natural resources is not prohibited but only limited to a certain extent. With regard to property right, Article 29 of Japanese Constitution provides that the right to own or to hold property is inviolable. Property rights shall be defined by law, in conformity with the public welfare. Private property may be taken for public use upon just compensation thereof. Similarly Korean Constitution only provides that licenses to exploit, develop, or utilize minerals and all other important underground resources, marine resources, water power, and natural powers available for economic use may be granted for a period of time under the conditions as prescribed by law. The land and natural resources are protected by the State, and the State establishes a plan necessary for their balanced development and utilization (Article 120).

3.2.1.3. Relationship between International Treaties and Domestic Law

The relationship between international law, especially international treaties, and domestic law (or municipal law) is a matter of constitutional law.

The Russian Constitution expressly recognized the supremacy of international treaties over Russian law. Article 15 (1) stipulates that the Constitution shall have supreme legal force and direct effect, and shall be applicable throughout the entire territory of the Russian

Federation. Laws and other legal acts adopted by the Russian Federation may not contravene the Constitution. Article 15(4) provides that the commonly recognized principles and norms of the international law and the international treaties of the Russian Federation shall be component part of its legal system. If an international treaty of the Russian Federation stipulates other rules than those stipulated by the law, the rules of the international treaty shall apply.

Article 98 of Japanese Constitution also provides that this Constitution shall be the supreme law of the nation and no law, ordinance, imperial prescript or other act of government, or part thereof, contrary to the provisions hereof, shall have legal force or validity. The treaties concluded by Japan and established laws of nations shall be faithfully observed. From the wording of this article, it is not clear whether a rule derived from international law shall still be “faithfully observed” if it conflicts with a rule derived from domestic law.

Article 6 of Korean Constitution stipulates that treaties duly concluded and promulgated under the Constitution and the generally recognized rule of international law have the same effect as the domestic laws of the Republic of Korea. Thus, many domestic laws adopt relevant articles of international laws or treaties to take effect within Korea so that there is no conflict between domestic laws and international laws or treaties.

The Chinese Constitution is silent on this issue. However, several laws clearly recognized the supremacy of international treaties. A typical example is Article 97 of the amendment Marine Environmental Protection Law of the People’s Republic of China (MEPL 1999) where the supremacy of international treaties is recognized.

3.2.2. Systems of Environmental Laws

The system of environmental laws refers to the organization and relationship among various environmental laws in a given NOWPAP state. The description of such systems in the NOWPAP states will help to understand the role and effect of a particular piece of law for marine environmental protection. The issue of such a system is partly determined by the political system of the state. Two aspects are involved. The first may be referred as vertical relationship between national and local environmental laws. The second may be referred as horizontal relationship among different environmental laws at the same level, namely at the central level.

Since China is a unitary state, vertically national laws are superior and override

conflicting local laws. However, in accordance with the “Environmental Protection Law”, provincial governments may establish their local standards for discharge of pollutants for items not specified by national standards. With regard to items already specified by the national standards, they may set local standards that are more stringent than the national standards and report them to the competent authority of the central government (Article 9). Moreover, as the laws relevant to environmental protection are adopted by different authorities, they may have different legal effect. In the hierarchy of legal norms, from top to bottom the supreme law is the Constitutional provisions regarding environmental protection mentioned earlier. The second rank is the laws adopted by the Standing Committee of the National People’s Congress, e.g. the “Environmental Protection Law” (1989) and the “Marine Environmental Protection Law” (1999). The third rank is the administrative laws, very often in the form of “regulation” adopted by the State Council, e.g. the “Management Regulation on the Ocean Dumping” (1985) and the “Management Regulation on the Prevention and Control of Land-Based Marine Pollution” (1990). The fourth rank is the ministerial rules by ministries, commissions and agencies, for example, the “Provisional Management Rules on Permit for Discharging Water Pollutants” (1988) and the “Management Rules on Environmental Impact Assessment for Construction Project” (1989) adopted by the SEPA of the State Council. Horizontally speaking, some of the laws have more general objectives and targets, such as the “Environmental Protection Law”. Others may have more specific objectives and targets, such as “Marine Environmental Protection Law” (1999) and “Air Pollution Prevention Law” (1987 and amended in 1995).

With regard to the effect of each rank of legal norms, Article 52 of the “Administrative Procedural Law” (1989) provides that the People’s Court, in dealing administrative cases, shall apply the laws, administrative laws and local laws. Local laws are applicable to those administrative cases within the same local administrative district. In comparison, with regard to the legal effect of those administrative rules issued by the ministries, commissions and agencies or by local municipalities, the court shall refer to them. In case of conflicts among these administrative rules, it is within the discretion of the State Council to make interpretation and decision (Article 53). Most of the laws for marine environment protection are either laws or administrative laws issued by the State Council.

In Japan, similarly the central government is responsible for formulating and implementing the fundamental and comprehensive policies for environmental conservation.³⁸

³⁸ Article 6 of the Japan Environment Basic Law (1993).

The local government (including local public entities) is responsible for formulating and implementing policies corresponding to national policies with regard to environmental conservation according to the natural and social conditions of areas of the local public entities.³⁹ Therefore, vertically national laws are superior over local ordinances, however, local governments may set up more stringent environmental standards than national standards, e.g. the 1969 Tokyo Metropolitan Environmental Pollution Control Ordinance.⁴⁰ Secondly, in the legal framework for environmental protection, the Environment Basic Law (1993) defines the most important matters in environmental protection, e.g. the responsibilities of the central and local governments, enterprises, and nationals; environmental policies, environmental plans, environmental quality standards and environmental councils at both central and local level, etc. Apart from this basic law, other relevant laws were passed as well, such as Air Pollution Prevention Law (1968), Water Pollution Law (1970), Law Relating to the Prevention of Marine Pollution and Maritime Disasters (1970), etc.

The legal system of Korea is in vertical arrangement format. The central government is responsible for the formulation and implementation of the laws and policies for environmental protection. The local governments are responsible for formulating and implementing policies within the boundaries of national laws and policies. Although the local governments can formulate more stringent regulations than the national standard, it is seldom practiced in Korea. Rather, local governments focus more on implementation of the environmental laws empowered by the national laws. This is because the national standards set by the central government such as Ministry of Environment and Ministry of Maritime Affairs and Fisheries are stringent enough to cover all territories of Korea as well as international standards.

The case of Russia is different because Russia is a federal state. The matters such as jurisdiction and competence of the respective Federation and subunits (referred as “subjects of the Federation”, i.e. republic, territory, region, federal city, and autonomous area) are stipulated by the Constitution. The federal laws include, from the top to the bottom, the Constitution, laws and federal constitutional laws, acts of the executive bodies (including decree of the President, decisions of the government and acts of other federal executive bodies). Within the jurisdiction of the Federation and joint jurisdiction of the Federation and the subunits, federal law enjoys supremacy. However, within the exclusive jurisdiction of the

³⁹ Article 7 of the Japan Environment Basic Law (1993).

⁴⁰ Julian Gresser, Koichiro Fujikura & Akio Morishima, 1981, *supra* note 28, at 246.

subunits of the Federation, the laws of the subunits enjoy supremacy. The jurisdiction of the Federation and joint jurisdiction is stipulated by the Constitution. Those matters, which are stipulated, belong to the exclusive jurisdiction of subunits.

Environmental protection falls within the joint jurisdiction of the Federation and the governments of the subunits of the Federation. The Constitution provides that determining the basic principles of federal policy and federal programs in the field of the environment and defining the status and protection of the national border, territorial waters, air space, the exclusive economic zone and the continental shelf of the Russian Federation are within the jurisdiction of the Federation (Article 71). The issues of (1) the possession, use, and management of land, mineral resources, water, and other natural resources; (2) management of natural resources, protection of the environment and ecological safety; specially protected natural reserve; and protection of historical and cultural monuments; (3) administrative, administrative-procedure, labour, family, housing, land, water, and forestry legislation and legislation on the natural resources and environmental protection; (4) protection of the original environment and traditional way of life of small ethnic communities are within the joint jurisdiction of the Federation and the governmental subunits of the Federation (Article 72.1). In the area of marine environmental protection, the Federation promulgated the “Water Code of the Russian Federation” and the “Federal Law on Continental Shelf of the Russian Federation” in 1995.⁴¹ Regarding the forest legislation, the Forest Code of the Russian Federation of 29 January 1997 N22-FZ is at the top. Its Preamble contains the definition as: "Forest is the totality of the forest vegetation, land, fauna and other components of the environment that is of great ecological, economical and social significance".

At the Russian Federation level, the establishment and use of specially protected natural territories are regulated by the Federal Law of the Russian Federation on Specially Protected Natural Territories N 33-FZ of 14 March 1995 (in edition of the Federal laws of 30 December 2001 № 196-FZ, of 29 December 2004 № 199-FZ, of 09 May 2005 № 45-FZ) (hereinafter – SPNTs). This Law determines SPNTs as parts of land, water surface and airspace where natural complexes and objects with environmental, scientific, cultural, aesthetic, recreational and health-improving significance. Special protection regime is settled down according to the decisions of the state authorities.

One variation of the sector legislation in Russia regarding environmental protection and

⁴¹ Ilya Nikiforov, Russian Legal Sever - Tutorial on Russian Legal Research, <http://solar.rtd.utk.edu/~nikiforov/mian.html>

rational use of natural resources is the legislation on bowels.⁴² Legislation on bowels is of special importance to Russia and has been a subject for permanent revisions and corrections. The Russian Federation Law on the Bowels regulates the geological study, utilization and protection of bowels of the Russian Federation, its continental shelf, the use of mining wastes, and related processing productions etc. A significant number of laws on the use of bowels have been adopted and in progress at present based on the Constitution of Russia of 1993.

The utilization and protection of the water resources is regulated by the Water Code of the Russian Federation of 16 November 1995 N 167-FZ. It is the most important legislation on ecological and natural resources, especially for the use and protection of water. Many of its provisions are further detailed by other laws and regulations including:

- The RF Law on Internal Waters, Territorial Sea and Contiguous Zone of the Russian Federation" of 31 July 1998 N 155-FZ (it establishes the legal use of the said water and adjacent territories);
- The Enactment of the RF Government of 23 November 1996 on Maintenance of the State Water Cadastre of the Russian Federation, which implements the Rules on Maintenance of the Water Cadastre which determines that the Ministry of Natural Resources is designated federal body for Water Cadastre maintenance;
- Enactment of RF Government of 23 November 1996 on Approval of the Provision on Protective Areas of Waters and Their Coastal Protective Stripes (it establishes minimal sizes of water protective areas and coastal range of surface waters, and provides a list of prohibited economic and other activities in these areas);
- Enactment of RF Government of 19 December 1996 on Approval of the Order of Development, Approval of Norms for Maximum Permissible Adverse Effects on Waters" etc.

The marine related legislation of the Russian Federation as a whole comprises of federal laws, government regulations and other documents, including normative acts and norms for different activities. All these laws and regulations have formed an interrelated structure mixed with various authorities at different levels responsible for the implementation of Russian marine environmental law.

⁴² Bowels are the part of the earth's crust, situated below the soil layer, and in case of its lack – lower than the earth surface and bottom of water objects and waterways, spreading to depths, available for geological study and development. Different activities related to use of bowels and mineral resources contained in them including: geological study of bowels; exploration of minerals; building of underground constructions; utilization of bowels, exhausted mines, natural interstices etc. for disposal or temporary storage of wastes and so on are subject for legal regulation.

3.3. Administrative Regimes

In the NOWPAP states, administrative regimes for environmental protection have been established in accordance with relevant domestic laws. In the area of marine environment, because of its specific feature, usually within their respective competence, several authorities are involved in such administration. In reviewing the different administrative regimes, two approaches were adopted, namely centralized and decentralized approaches.

In China, in accordance with the revised “Marine Environmental Protection Law” (1999), the authorities include the State Environmental Protection Agency (SEPA), the State Oceanic Administration (SOA), the Maritime Affairs Administration, the Fishery Administration, the environmental department-in-charge of the army, and the environmental department-in-charge of the coastal provinces, autonomous regions and the municipalities directly under the central government (Article 6).

In Japan, similarly the authorities involved include the Ministry of the Environment, the Ministry of Land, Infrastructure and Transport, the Japan Coast Guard, the Japan Meteorological Agency and the Japan Fisheries Agency.

In Korea, environmental protection is administered by Ministry of Environment (MOE) for the land and freshwater protection and Ministry of Maritime Affairs and Fisheries (MOMAF) for the ocean and seawater protection. Currently, there are 39 laws and 3 laws administered by MOE and MOMAF, respectively. However, there are about 60 laws that have environmental provisions administered by other ministries. Ocean-related laws are actively enacting by MOMAF apart from laws adopted by MOE, the latter are focused on the land environment.

Russia has a fairly complex system involving in environmental protection. Three major relevant authorities at the federal level include the Ministry of Natural Resources of the Russian Federation (MPR), the Ministry of Agriculture of the Russian Federation (Minselkhoz), and the Federal Service for Hydrometeorology and Environmental Monitoring. The MPR has four agencies under its competence. They are the Federal Subsoil Resources Management Agency, the Federal Forestry Agency, the Federal Water Resources Agency, and the Federal Supervisory Natural Resources Management Service. The Ministry of Agriculture of the Russian Federation (Minselkhoz) has three bodies under its competence. They include Federal Agency for Agriculture, Federal Service for Veterinary and Phyto-Sanitary Surveillance, and Federal Agency for Fisheries. The Federal Agency for Fisheries

provides the state services and property management of fishery activities, rational use, research, conservation and reproduction of aquatic bio-resources and their habitats. The Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) is set up under the Federal Government. It functions on adoption of normative legal acts, state property management and hydrometeorology services, monitoring of the natural environment, its pollution, the state surveillance of works on vigorous influence on meteorological and other geophysical processes.

From the brief introduction of the administrative regime of China, Japan, and Korea, as well as a detailed description of Russia, it is obvious that each state has its own legal system and legal regime. There is no single universally accepted form of legal regime in the world. However, a crucial issue involved here is how to make the whole machinery work efficiently and effectively. It is clear that relevant laws may stipulate the competence of the authorities, but with regard to those matters that cut across the boundary of the ministerial competence it is not clear, from the national reports, that how relevant ministries or agencies will act and what the procedural rules are applied, especially in the case of failure to act on the part of a particular ministry or agency.

It is true that environmental protection usually involves many competent government authorities. A problem commonly seen is the fragmentation of administrative authorities. This was also the case of Korea before 1996. The authorities include the Ministry of Environment, the Ministry of Home Affairs, the Maritime and Port Administration and the Fisheries Administration (MOMAF). However, in order to conduct a more coordinated and integrated marine administration, the Ministry of Maritime Affairs and Fisheries was created in 1996. It is a “super-agency” incorporating all the marine-related functions.⁴³

3.4. Dispute Settlement Mechanism

In the NOWPAP states, different mechanisms for environmental disputes are provided by relevant laws. In China, environmental civil disputes may be settled either by environmental departments-in-charge at different levels of the government (SEPA or EPA at local level), the other government departments-in-charge or the People’s Courts. There is no special environmental court in China.⁴⁴ Between the administrative and judicial settlement

⁴³ Ji-Hyun Lee, Hong-Hee Lee, Moon-Sang Kwon, *supra* note 17, 20-22

⁴⁴ SONG Ying, “Judicial Settlement of Environmental Disputes in China: A Preliminary Observation”, paper presented at the International Conference on Judicial Reform of City University of Hong Kong, 1998.

mechanism, the former plays more important role though the role of the court is increasing. According to the statistics of 2003⁴⁵, there were 93000 cases in which administrative penalties were imposed by SEPA or EPA in China. Among them 230 cases were sent for administrative review and 579 cases were sent to the court for judicial review.

However in Japan, things are different. The courts of Japan have played an important role in environmental disputes settlement, especially in the four well-known pollution trials, the Itai-Itai Case (1971), the Niigata and Kumamoto (Mercury Poisoning) Cases (1971-1973) and the Yokkaichi Air Pollution Case (1973). In these cases, the courts of Japan have contributed a lot not only to the development of legal doctrines in environmental cases but also to the development of new values in the society. On the legal doctrine aspect, these trials virtually made great contribution with regard to those difficult issues in pollution cases like fault, strict liability and wilfulness, standard of care, joint liability, causation and damages. On the social aspect, firstly, their decisions transformed the moral outrage of environmental victims into specific legal doctrine. Second, because of the media comprehensive coverage of environmental trials, environmental campaigns and debates were effectively transmitted to the entire nation. And finally, the courts' decisions profoundly influenced the subsequent conduct of the victims, industries, government, and the Diet.⁴⁶

Moreover, other dispute settlement methods are also widely used in Japan, such as conciliation, mediation and arbitration. To a certain extent, Japan, like China and Korea, historically favoured extra-judicial settlement. The Law for Resolution of Pollution Disputes (hereafter referred as the Dispute Law) was issued on June 1, 1970. This Dispute Law established three independent subsystems for dispute settlement, the first two at the local level (a citizen's Complaint Referral Service, a Local Pollution Review Board) and the third at the central level (a Central Dispute Coordination Committee) in Tokyo.⁴⁷ The citizen complaint system incorporated into statutory form the activities of the local prefectural complaint counsellors that were authorized by local ordinances predating the Dispute Law. The Local Pollution Review Board is separate from the complaint system. The board's purpose is to settle minor disputes. The board has jurisdiction over disputes between private parties and between citizens and the government. It is empowered to conduct mediation, conciliation and arbitration. The Central Dispute Coordination Committee is an independent administrative body, which can also conduct mediation, conciliation and arbitration. Besides, it also has

⁴⁵ 2003 China Environment Yearbook, China Environmental Yearbook Publication, 2003, at 628.

⁴⁶ Julian Gresser, Koichiro Fujikura & Akio Morishima, 1981, *supra* note 28, at 41.

specific investigating and fact-finding powers. However, its jurisdiction is limited to cases involving air or water pollution causing death or physical impairment and the risk of the spread of such pollution; air and water pollution-induced damage to animals or plants exceeding 500 million Yen; pollution cases involving more than one prefecture and matters referred by prefectures.

Very similarly, the Environmental Dispute Settlement Act was also introduced in Korea in July 1991.⁴⁸ In accordance with this act, a Central Environmental Disputes Coordination Commission and Regional Environmental Commissions were established. These bodies are empowered to conduct mediation, conciliation and arbitration. From 1991 to 1997, the Central Environmental Disputes Coordination Commission received a total of 190 complaints.⁴⁹ Among them 143 cases were settled through ruling and 19 cases through conciliation. If the complainant is not satisfied with the settlement, he or she may bring the case to a civil court. The Environmental Dispute Settlement Act was first amended in 1995 in order to expand the jurisdiction to cover cases of expected damages related to construction of environmental infrastructure and river pollution. A bill for other revisions was filed in 1997. It proposed revisions concerning further expansion of the jurisdiction of the Act, the scope of parties, group complaints, time limit for disputes settlement and restructure of the Central Environmental Disputes Coordination Commission. In 2006, the Act is revised to cover the dispute arises from failure to effective ventilation and day light to the living environment and to include the mental suffering from the negative environmental impact in the list eligible for the dispute settlement.

In Russia, the system for environmental dispute settlement is provided within the mechanism of the Constitutional Court of the Russian Federation, the Supreme Court of the Russian Federation and the Higher Arbitrage of the Russian Federation. The resolutions of the judicial plenary sessions as well as the Constitutional Court shall merely interpret and explain the sense of ecological legislation, but shall not establish new norms of ecological law. Thus, similar explanations and resolutions representing the judicial practice are not sources of ecological legislation, but merely norms-definitions, the gaps in the legal regulation could be discovered and eliminated. However, there is certain scientific discussion regarding the juridical practice. The views of scientists regarding the juridical practice are sources of the legislation on environmental protection and rational use of natural resources.

⁴⁷ *Ibid*, 325-330.

⁴⁸ S. K. Jung, Korean Environmental Law, <http://myhome.shinbiro.com>

Definitions of the Constitutional Court of the Russian Federation address issues arising from compliance of any normative legal acts or particular provisions to the Constitution of Russia. In line with articles 126 and 127 of the Constitution, the Higher Court of the Russian Federation is the highest judicial body on civil, criminal, administrative and other cases. The Higher Arbitrage of the Russian Federation is the highest judicial body on settlement of economic disputes and other cases considered by arbitrages, performs the judicial review of their activity in envisaged by the federal law procedural forms and provides the interpretations on issues of judicial practice. Thus, the interpretations of the Supreme Court of Russia Plenary are obligatory for all courts of general jurisdiction, and the interpretations of the Higher Arbitrage of Russia are compulsory for the whole system of arbitrages of the Russian Federation.

As environmental legislation is integrated into other sectors, its relations with other sectors could be traced mainly in the following directions:

Its contents and structure are influenced by other legal acts;

It borrows the principles and basic rules from other sectors such as the constitutional law but with further concretisation;

It attracts norms and institutions from legislation of other sectors to address the principal tasks of the sector (for example from the civil law – the order of indemnification, from the administrative law – general order of licensing) etc.

In addition, the sources of Russian environmental legislation also come from the mechanism of collisions abatement emerged through the Constitutional Court of the Russian Federation, the Supreme Court of the Russian Federation and the Higher Arbitrage of the Russian Federation.

4. International Aspect: NOWPAP States and Relevant International Environmental Treaties and Intergovernmental Organizations

Marine and coastal environmental protection is one of the areas that are comparatively well developed and more mature than others in international environmental law. Relevant international environmental treaties⁵⁰ and international organizations are the result of the long-lasting efforts of international community and the treaties again also contributed and

⁴⁹ Ibid.

⁵⁰ The term “treaty” is used as a generic term embracing all kinds of international agreements in written form.

promoted such achievements. This part of the overview will focus on the international aspect of the NOWPAP states in marine and coastal environmental protection and management. It will cover both major international environmental treaties (often referred as multilateral environmental agreements, MEAs) and inter-governmental organizations⁵¹ in which the NOWPAP states have participated. Due to the lack of information, this overview will not examine how effectively the NOWPAP states have implemented these environmental treaties though it is very important for this NOWPAP project.

4.1. NOWPAP States and International Environmental Treaties

As it is indicated in the attached *Table I: NOWPAP States and Global Environmental Treaties*, the NOWPAP states have participated in most major multilateral environmental treaties. The status of participation of the NOWPAP states can be summarized in the following table:

Participation of NOWPAP States in Global Environmental Treaties

| | Before 1970 | 1970s | 1980s | 1990s | 2000s | Total |
|------------------|--------------------|--------------|--------------|--------------|--------------|--------------|
| Treaties* | 12 | 20 | 11 | 7 | 3 | 53 |
| China | 1 | 0 | 16 | 14 | 8 | 39 |
| Japan | 7 | 5 | 14 | 14 | 2 | 42 |
| Korea | 4 | 5 | 7 | 17 | 1 | 34 |
| Russia | 7 | 10 | 11 | 11 | 0 | 39 |

* The years of the “Treaties” are the years of signature, however, the years for the NOWPAP states are the years of either signature or ratification because in certain cases only the year of signature is available.

The above table shows clearly that many of the above international treaties concerning marine environment were concluded in the 1970s at the global level though some important ones, i.e. the UN Convention on the Law of the Sea (UNCLOS), were concluded later in 1980s. It may be partly explained by the increased international environmental concern since the 1972 Stockholm Conference and its follow-up activities. After 1970s, the number of the treaties starts to decline perhaps because many of the crucial issues have already been tackled. However, the participation of the NOWPAP states into environmental treaties generally has increased since the 1970s. In fact, most of these treaties entered into by these states are

⁵¹ The information about relevant NGOs is not available.

between 1980s-1990s. It indicates that it takes time (at least a decade) for the NOWPAP states to get involved or to decide whether to join the international efforts if they are not the initiators of such efforts. The participation by China, Japan and Russia reaches the peak in 1980s, though China has signed 8 treaties in the last decade of last century. The participation by Korea, however, continues to increase after 1980s and reaches its peak in 1990s.

The participation of the NOWPAP states in these treaties triggered changes domestically. They amended their own legislation respectively in order to bring them into line with the requirements of these treaties.⁵² For example in order to implement the UNCLOS, Korea amended the 1977 Territorial Sea and Contiguous Zone Act in 1995, which entered into force in 1996. Russia adopted the Federal Law on the Continental Shelf of the Russian Federation, which defines the continental shelf and continental margin in 1995 with revisions and additions of 1999. It is a comprehensive law that deals with the issues of dumping at sea, harvesting licenses, permits fees and payments, enforcement, and settlement of disputes, etc. The Japanese Diet adopted eight pieces of legislation for the implementation of the UNCLOS in establishing its contiguous zone, redefining its continental shelf and proclaiming an exclusive economic zone in 1996. China adopted the Law of the People's Republic of China on the Exclusive Economic Zone and the Continental Shelf in 1998. The law establishes the legal framework for these two areas, which will be developed according to regulations.

One difficult issue in implementing the UNCLOS, however, is the delimitation of maritime boundary in this region.⁵³ In the NOWPAP region, only a few of maritime boundaries have been settled, leaving most open to dispute. To a certain extent, the existing dispute may become a barrier to further developing regional efforts in marine and coastal protection, management and development. It is important that certain kinds of understanding or arrangements ought to be made within the framework of the NOWPAP in this respect.

The following part will be a brief review of relevant environmental treaties. Following the subject matter of these treaties, they may be divided into two groups: (a) framework treaty on law of the sea, namely the UNCLOS, and (b) specific treaties dealing with a particular aspect of marine environment. For the purpose of this report, the scope of the following review will be limited to those crucial issues and problems particularly relevant to this region, i.e. land-based pollution, ship-based pollution and dumping at sea, etc.

⁵² United Nations, Report of the Secretary-General on the Law of the Sea, General Assembly, United Nations, 1996 (A/51/645); Report of the Secretary-General on the Oceans and the Law of the Seas: Law of the Sea, 1997, (A/52/487); 1998, (A/53/456); 1999, (A/54/429), See Web version: <http://www.un.org/Depts/los/>

⁵³ *Ibid.* See also Jonathan I. Charney, "Central East Asian Maritime Boundaries and the Law of the Sea", 89 American

4.1.1. Framework Treaty on the Law of the Sea

In the first UN Conference on the Law of the Sea in Geneva in 1958, environmental protection was not given much attention. The four conventions concluded at the Conference contained several articles concerning marine environment. Article 24 and 25 of the Convention on the High Sea required states to prevent oil pollution from ships, pipelines and seabed operations, and pollution from radioactive substances. However, it neither provided a definition on “pollution”, nor any comprehensive duty on states to protect marine environment. The Convention on the Continental Shelf affirmed the rights of coastal States to exploit the resources located in the submarine areas adjacent to their territorial seas (Article 2(1)). But in exercising these rights, coastal states must not create unjustifiable interference with the rights of other States to navigate, fish and conserve living resources (Article 5(1)).

The 1982 UNCLOS, the achievement of the third UN Conference on the Law of the Sea, aims to establish a comprehensive legal framework to govern activities in relation to the oceans and seas. Environmental protection was high on the agenda during the whole period of negotiation. A separate part is devoted to it, Part XII Protection and Preservation of the Marine environment (46 articles). Moreover, there are also other provisions that have relevance to the protection of marine environment in other parts of the Convention. Therefore UNCLOS represents an important advance over earlier Geneva Conventions, covering all sources of marine pollution, namely ship-based sources, land-based sources, seabed operations, dumping and atmospheric pollution. It provided a framework for later treaties both at global and regional levels on each of these issues. As of 31 December 2006, 152 states (including Europe Community) have ratified or acceded to the Convention.⁵⁴ The legal principles, established in UNCLOS as customary law, are widely accepted by state practice.

UNCLOS requires states to pursue two environmental objectives. Firstly, states should prevent, reduce and control marine pollution. Secondly, they should conserve and manage marine living resources. The exploitation of non-living resources of the seabed and ocean floor beyond the limits of national jurisdiction is administered by the International Sea-Bed Authority. Under the UNCLOS, states have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment. The UNCLOS is much more elaborate than earlier

treaties in many aspects. It provides a definition on pollution of marine environment. It also makes distinction between duty to protect the environment and the responsibility not to cause damage by pollution to other states and their environment. The freedom of states to pollute the marine environment is no longer permissible. These obligations for states serve as the basis for more detailed rules and standards in other global and regional treaties and cooperation programmes.

4.1.2. Specific Treaties

More detailed rules and legal regimes were formulated in other treaties. With regard to the issues involved in this report, they cover the following areas: land-based sources of pollution; ship-based sources of pollution; pollution by dumping and waste management; marine living resources; sea-bed activities; critical areas; liability for marine pollution and damages; and other specific concerns such as nuclear safety.

4.1.2.1. Land-based Sources of Pollution

Land-based sources consist of two general sources: (1) pollution from substances and energy entering the marine environment by run-off from land, rivers, pipelines and other out-fall structures, which accounts for about 44% of all ocean pollution; (2) pollution from or through the atmosphere, generated principally from land-based activities but also from ships and aircraft, which accounts for about 33% of marine pollution.⁵⁵ Therefore land-based sources are responsible for most of the pollution of the oceans and affect the most productive areas of the marine environment.⁵⁶

Article 207 of UNCLOS requires States to adopt laws and regulations to prevent, reduce and control pollution from land-based sources and to endeavour to establish global and regional rules, standards and recommended practices and procedures, acting especially through competent international organizations and diplomatic conferences. However, at present no specific treaty directly addresses this issue at global level, so it is basically a matter of municipal environmental law. Two non-binding international documents have been adopted on this issue: the 1995 Washington Declaration on the Protection of the Marine Environment from Land-based Activities and the 1995 Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). Other international

⁵⁵ Philippe Sands, *Principles of International Environmental Law*, vol. I, Manchester University Press, 1995, at 318.

⁵⁶ Report of the Secretary-General on the Ocean and the Law of the Sea, 1997, *supra* note 49, para. 266.

instruments relevant include the United Nations Framework Convention on the Climate Change, the Convention on Biological Diversity and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.⁵⁷

The 1995 GPA addresses the impacts of land-based activities on the marine and coastal environment including contaminants, physical alteration, point and non-point sources of pollution, and such areas of concern as critical habitats, habitats of endangered species and protection of ecosystem component such as breeding and feeding grounds. Although not legally binding, it is designed to be a source of conceptual and practical guidance to be drawn upon by national and regional authorities in devising and implementing sustained actions to prevent, reduce, control and eliminate marine degradation from land-based activities. The UNEP is designated as the secretariat of the GPA, the Coordinating Office for the GPA. The Coordinating Office identified 8 priority tasks for immediate consideration: to develop and facilitate the preparation of scientific assessments of the impacts of land-based activities on the marine environment; to foster/facilitate the development and implementation of national and regional programmes of action on land-based activities; to establish and coordinate the GPA clearing-house mechanism; to mobilize financial resources; to enhance awareness and education; to encourage the involvement of non-governmental organizations; to report and review progress in GPA implementation; and to engage in consultation on GPA implementation.⁵⁸ Certain measures were taken with regard to these areas of priority.

Within the framework of the NOWPAP, the following activities were proposed: (1) preparation for the national rapid assessment reports on land-based activities causing marine environmental degradation in the northwest pacific region; (2) conducting rapid assessment of land-based activities affecting the marine environment by each participating state; (3) workshop to present results of the rapid assessment and to discuss elements of the regional programmes to address land-based activities affecting the marine and coastal environment in this region; (4) finalization of the rapid assessment report, and their publication.⁵⁹

Pollution from the atmosphere also contributed to the degradation of marine environment. Currently, priority is given to the emission and concentration of greenhouse gases causing the risks of global climate change. Acid deposition being as greater regional problem is not limited by national boundaries, and corresponded assessment, researches and measures have been undertaken as the international issues. Since 1993, through expert meetings, it was

⁵⁷ Report of the Secretary-General on the Law of the Sea, 1996, *supra* note 49, para. 198-205.

⁵⁸ Report of the Secretary-General on the Ocean and the Law of the Sea, 1998, *supra* note 49, para. 333.

agreed that a regional collaborative monitoring network for acid deposition in East Asia need to be established. Based on the discussion at the expert meetings, the First Session of the Intergovernmental Meeting (IG) on the Acid Deposition Monitoring Network in East Asia (EANET) was held in March 1998. At the Second Session of IG in October 2000, it was concluded that the preparatory phase activities had been successful and decided to start the EANET activities on a regular basis from January 2001. EANET was established as regional cooperative initiative to promote efforts for environmental sustainability and protection of human health.⁶⁰ The operation of EANET indicates the increasing awareness of the environmental issue and the cooperation in the region.

The UN Framework Convention on Climate Change and the Kyoto Protocol have been noted as important achievements. Some developed states have committed to elaborate policies and measures in this aspect and set quantified limitation and reduction objectives within specified time frames for their emission. Air pollution from ships is now regulated by Annex VI of the MARPOL 73/78, covering ozone depleting substances (which are mainly regulated by the Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol), volatile organic compounds and shipboard incineration. In addition, controlling measures on certain persistent organic pollutants (POPs) have led to the conclusion of Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention). The Stockholm Convention is a global treaty to protect human health and the environment from POPs.⁶¹ It was adopted on 22 May 2001 and entered into force on 17 May 2004. In accordance with paragraph 1 of Article 7 of the Stockholm Convention, each Party develop and endeavor to implement a plan for the implementation of its obligations under the Convention and to transmit its plan to the Conference of the Parties within two years of the date on which the Convention entered into force.

4.1.2.2. Ship-Based Sources of Pollution

Ship-based sources of pollution (or also referred as pollution from vessels) is caused by legal, accidental or deliberate discharges from ships of such pollutants as oil and oily wastes, noxious liquid substances, sewage, garbage, noxious solid substances, anti-fouling paints or

⁵⁹ UNEP (1999), *supra* note 3, 6-7.

⁶⁰ <http://aqnis.pcd.go.th/project/EANET/eanet.htm>.

⁶¹ UNEP Governing Council Decision 19/13C (1997) invited UNEP to convene an Intergovernmental Negotiating Committee (INC) to prepare an international legally binding instrument on persistent organic pollutants (POPs). The INC and its subsidiary bodies completed work on the instrument, the Stockholm Convention on Persistent Organic Pollutants, in December 2000. A Conference of Plenipotentiaries adopted the Stockholm Convention on 22 May 2001. The Convention entered into force on 17 May 2004. The first meeting of the Conference of the Parties took place from 2-6 May 2005 in Punta del Este, Uruguay. For recent development of Stockholm Convention, see <http://www.pops.int/documents/meetings/>.

foreign organisms directly into the marine environment or indirectly through the atmosphere.⁶² This kind of sources of pollution is estimated as about 12% of marine pollution, but has a high public profile due to the visibility and obvious environmental consequences of incidents, particularly involving oil spills in the past three decades.⁶³

Article 211 of UNCLOS requires states to establish international rules and standards to prevent, reduce and control pollution of the marine environment by ships and vessels. National laws and regulations must at least have the same effect as the global rules and standards. Article 217 requires flag states to provide for effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs. For coastal states, they may also adopt laws to combat vessel pollution from passage of foreign vessels in their territorial seas, including those exercising the right of innocent passage (Article 211(4)). Within the EEZ, states may, for the purpose of enforcement, adopt laws and regulations that conform to and give effect to generally accepted international rules and standards (Article 211(5)). Furthermore, states are required to take appropriate measures to ensure that vessels flying their flag or of their registry are prohibited from sailing, until they can proceed to sea in compliance with the requirements of the international rules and standards, including requirements in respect of design, construction, equipment and manning of vessels.

The principal international treaty dealing specifically with discharges of pollutants relating to the normal operation of ships is the International Convention for the Prevention of Pollution from Ships of 1973 as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). It replaced the 1954 International Convention for the Prevention of Pollution of the Sea by Oil. Currently 6 annexes which provided more detailed rules have been attached concerning 6 main categories of substances: oil (Annex I); noxious liquid substances carried in bulk (Annex II); harmful substances carried in packaged form (Annex III); sewage (Annex IV); and garbage (Annex V); air pollution from ships (Annex VI). States ratifying MARPOL 73/78 must accept Annexes I, and II at the same time, but may choose whether to accept the other four annexes. Up till now, all the annexes of the MARPOL 73/78 are in force, and the revised Annex I and II will enter into force on 1 January 2007.⁶⁴ Further clarifications to various provisions were adopted by the IMO Marine Environmental Protection Committee in the form of resolution setting out unified and authoritative interpretations or amendments to

⁶² Report of the Secretary-General on the Ocean and the Law of the Sea - 1997, *supra* note 49, para. 303.

⁶³ Philippe Sands (1995), *supra* note 51, at 325.

⁶⁴ For a more detailed account on MARPOL 73/78 and the entry into force of its Annexes and amendments, see http://www.imo.org/Conventions/contents.asp?doc_id=678&topic_id=258.

the Convention.⁶⁵ All the NOWPAP states have ratified the MARPOL 73/78, and China, Japan and Korea have ratified the all the annexes.⁶⁶

The objective of MARPOL 73/78 is to eliminate intentional pollution of the marine environment by oil and other harmful substances from ships and to minimize accidental discharges completely. Though this objective looks to be too ambitious to be accomplished, the substantive obligations are amongst the most precise and comprehensive in any international environmental agreements. Many terms, like discharge, harmful substances, are broadly defined. Due to the high level of oil pollution, proposal was made to the IMO to improve enforcement, including the fitting of transponders.⁶⁷

International standards on the safety of shipping have been adopted for load lines, prevention of collision at sea, safety of life at sea and training of seafarers, which attracted wide support from states.⁶⁸ The 1990 International Convention on Oil Pollution Preparedness and Response and Cooperation (OPRC) requires parties⁶⁹ to inform all concerned States of an oil pollution incident and provides a global framework for international cooperation in combating major oil pollution incidents or threats to marine pollution. In this aspect, the Marine Environment Protection Committee (MEPC) of the IMO has the developed the Guidelines for Facilitation of Response to an Oil Pollution Incident Pursuant to Article 7 and Annex of the OPRC.⁷⁰

Other matters of increasing concern in relation to ship-based pollution include the anti-fouling paints used to coat the bottoms of ships and the harmful aquatic organisms in ballast water. If the paints contain organotin, they are likely to pose a substantial risk of toxicity and other chronic negative impacts upon ecologically and economically important marine organisms, especially those in the coastal waters. In order to tackle this problem, IMO adopted the International Convention for the Control and Management of Ship's Ballast Water and Sediments on February 2004. Currently, IMO has been working to develop guidelines necessary for the implementation of the Convention. On 5 October 2001, the IMO adopted an International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention). The AFS Convention has opened for signature since 1 February

⁶⁵ For updates, see <http://www.imo.org>.

⁶⁶ http://www.imo.org/includes/blastDataOnly.asp/data_id%3D16611/status.xls.

⁶⁷ Report of the Secretary-General on the Ocean and the Law of the Sea, 1997, *supra* note 49, para.316.

⁶⁸ 1966 International Convention on Load Lines; 1972 Convention on the International Regulations for Preventing Collisions at Sea; 1974 International Convention for the Safety of Life at Sea, and 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers.

⁶⁹ China, Japan and Korea are parties to this treaty in the NOWPAP states.

⁷⁰ Report of the Secretary-General on the Ocean and the Law of the Sea, 1998, *supra* note 49, para. 344.

2002. It will enter into force 12 months after 25 States representing 25 % of the world's merchant shipping tonnage have ratified it. Currently, it has 17 contracting states representing 15.72% of world tonnage.⁷¹ Once in force, the AFS Convention will prohibit the use of harmful organisms in anti-fouling paints used on ships and will establish a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems.

In the NOWPAP states, Japan has banned the organotin in these paints for most ships.⁷² The discharge of ships' ballast water introduces unwanted aquatic organisms and pathogens that have been able to flourish in their new surroundings but often to the detriment of the indigenous marine life and even human health. In order to tackle this problem, the IMO Assembly adopted a resolution on the Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens.

4.1.2.3. Pollution by Dumping and Waste Management

Pollution by dumping causes about 10% of marine environmental pollution.⁷³ At global level, this issue is addressed in two international treaties. The UNCLOS provides broad principles while detailed regulations are set out in the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (1972 London Convention).

Article 210 of UNCLOS requires states to adopt laws, regulations and other measures to prevent, reduce and control pollution of the marine environment by dumping. Such laws, regulations and measures shall ensure that dumping is not carried out without the permission of the competent authorities of States. States shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control of such pollution. National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than global rules and standards. Dumping without permission of the relevant authority must not be carried out. Dumping within the territorial sea and the EEZ or onto the continental shelf shall not be carried out without the express prior approval of the coastal state after due consideration of the matter with other States by reasons of their geographical situation which may be adversely affected thereby.

The objective of the 1972 London Convention is to prevent the pollution of the sea by dumping of wastes and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate use

⁷¹ <http://www.imo.org/>.

⁷² Report of the Secretary-General on the Ocean and the Law of the Sea, 1999, *supra* note 49, paras. 411-416.

⁷³ Philippe Sands (1995), *supra* note 51, at 308.

of the sea. The Convention set out rules for regulating and prohibiting dumping of wastes. Wastes are divided into three categories, (1) highly hazardous wastes substance, (2) “special care” substances and (3) other wastes. Initially incidental disposal of wastes at sea was not included in the definition of dumping in the 1972 London Convention.

The 1996 Protocol made substantive amendments to the Convention, including the definition of “dumping”. In fact, it is intended to replace the 1972 London Convention. The current definition covers any storage of wastes or other matter in the seabed and the subsoil thereof from vessels, aircraft, platforms or other man-made structures at sea and any abandonment or toppling at site of platforms or other man-made structures at sea, for the sole purpose of deliberate disposal. The definition of “sea” is also broadened to include the seabed and the subsoil. Moreover, the 1996 Protocol requires Contracting Parties to apply precautionary approach and the polluter-pays principle and not to transfer damage or likelihood of damage from one part of the environment to another or to transform one type of pollution into another. The regulation on dumping is tightened. In October 1997, the Contracting Parties adopted Guidelines for the Assessment of Wastes or Other Matters that May be Considered for Dumping for application under the 1972 London Convention and the 1996 Protocol.⁷⁴ The Guidelines are intended to guide national authorities in evaluating applications for dumping of wastes and to provide basis for developing specific guidelines for waste materials that may be considered for disposal at sea. Moreover, the Contracting Parties also adopted the Technical Cooperation and Assistance Programme under the 1972 Convention in order to provide support to those States in need of assistance to take effective measures to prevent, reduce and eliminate pollution of the sea caused by dumping of wastes and other matters according to the Convention and the Protocol.

Also as a result of the 1996 Protocol, incineration at sea, though permitted under the 1972 Convention, is specially prohibited by Article 5 of the Protocol. Article 6 also prohibits Contracting Parties from exporting wastes or other matter to other states for dumping or incineration at sea. Article 7 requires each Contracting Party to adopt effective measures to control the deliberate dumping or incineration at sea in accordance with the Protocol. The Contracting Parties are requested to provide the IMO with information on legislation and institutional mechanisms regarding implementation, compliance and enforcement.⁷⁵ Notably, the mechanisms for implementation, compliance and dispute settlement are also

⁷⁴ Report of the Secretary-General on the Ocean and the Law of the Sea, 1998, *supra* note 49, paras. 338-340.

⁷⁵ Report of the Secretary-General on the Ocean and the Law of the Sea, 1997, *supra* note 49, para. 291.

strengthened.⁷⁶

4.1.2.4. Exploitation of Marine Resources

The oceans and seas provide abundant marine resources for human consumption. Marine resources include both living and non-living resources. Many international instruments regulate human exploitation of these resources.

The UNCLOS has struck an important balance between the use of the ocean and its resources and the protection of marine environment. It provides for the equitable and efficient use of resources, the conservation of living resources and the protection of marine environment. Its provisions are further elaborated in a number of international treaties with regard to the use and conservation of marine resources.

a. Marine Living Resources

Marine fishery is one of the major means of exploitation of marine living resources. A big problem of the world's fisheries today is over-fishing in a large part of the world's oceans and seas, caused by over-capacity in the fishing industry.⁷⁷

The main objective of international law for fisheries conservation has been to establish a framework for international cooperation towards the management and conservation of fisheries and marine living resources which is built upon two related obligations: (a) international research and scientific cooperation, and (b) international regulation.

The UNCLOS provides the major legal framework for conservation and sustainable use of marine living resources. It includes provisions on conservation and sustainable use of marine living resources in territorial waters, in archipelagic waters, in the EEZ and in the high seas. Moreover, it also provides special rules for straddling fish stocks, highly migratory species, marine mammals and anadromous and catadromous species.

Apart from the UNCLOS, several important global international instruments provided more detailed rules in this aspect, i.e. Chapter 17 of the Agenda 21(1992), the 1995 Agreement for the Implementation of the Provisions of the UNCLOS relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (hereafter referred as the 1995 Fish Stocks Agreement), the 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas and the 1995 FAO Code of Conduct for Responsible Fisheries. In addition,

⁷⁶ *Ibid.*, paras. 292-293.

⁷⁷ See also the section on the Economic & Environmental Features of the NOWPAP Region of this Report.

certain fishing practices, such as driftnet fishing, are also regulated and restricted by international instruments. The 1992 UN Convention on Biological Diversity exerts important influence on marine living resources, especially marine and coastal biodiversity.

The 1997 Jakarta Experts Meeting on Marine and Coastal Biological Diversity held extensive discussions on several marine issues related to mariculture, sustainable use of marine and coastal living resources, marine and coastal protected areas and integrated marine and coastal management.⁷⁸ The Jakarta Mandate agreed that, among other recommendations, the emphasis was placed on the importance of regional, national and local activities to be undertaken along with the Biodiversity Convention mechanism for the implementation of its provisions in relation to marine and coastal biodiversity as well as the need to apply precautionary approaches to biodiversity impacts. Another recommendation was to implement the Integrated Marine and Coastal Area Management (IMCAM) concept at different levels using existing mechanisms of international instruments like the Regional Seas Programmes and the UNCLOS.⁷⁹ Moreover, marine mammals (e.g. whales) and tuna attract wide attention and are subject to several international treaties and instruments. Mariculture is the aquaculture practiced in marine or brackish water and is assumed to include culture-based fisheries. It is a means providing more fish for human consumption but at the same time it also caused other environmental problems, like water pollution and eutrophication.

The NOWPAP region witnessed the problem of overfishing as well. Although the problem of over-fishing has widely recognized and international instruments such as the 1995 Fish Stocks Agreement and the Code of Conduct for Responsible Fisheries have already been adopted, fishery management, however, has generally failed to protect the resources from being overexploited and fisheries from being economically inefficient. Several key factors were considered as main causes, i.e. the lack of political will to make difficult adjustment, particularly with respect to access to fishery resources and fishing rights, persistent direct and indirect subsidies, lack of control of fishing fleets by flag states, resistance of fishing industry to change, lack of participation of traditional fishing communities in decision-making process and continued use of destructive fishing practices, etc.⁸⁰

Under such critical circumstances, it is all important for the NOWPAP region at this stage to examine honestly that whether these causes and problems exist and what measures

⁷⁸ Report of the Secretary-General on the Ocean and the Law of the Sea, 1997, *supra* note 49, paras. 198-201.

⁷⁹ *Ibid.*

⁸⁰ Report of the Secretary-General on the Ocean and the Law of the Sea, 1998, *supra* note 49, para. 261.

The prevalence of illegal, unregulated and unreported (IUU) fishing on the high seas became a serious issue too. See [Report](#)

could be taken to overcome such difficulties in this region. Certain efforts for regional cooperation have been made in this aspect. For example, Japan, Russia, Canada and the United States, the primary States of origin for salmon stocks in the North Pacific, held the fifth annual meeting of the North Pacific Anadromous Fish Commission (NPAFC) in United States in October 1999 and adopted reports of its committees on Enforcement, Scientific Research and Statistics and Finance and Administration.⁸¹ The NPAFC parties agreed to renew the invitation extended to China and Korea to join the NPAFC.⁸² China has become more active and cooperative with the commission in the enforcement on drifting fishing. With regard to the conservation of Southern Bluefin Tuna, Japan and Korea attend annual meetings of the Commission for the Conservation of Southern Bluefin Tuna as member states.

b. Marine Non-living Resources

Apart from marine living resources, the past few years witnessed important development in the exploration and exploitation of non-living resources which include beach and nearshore minerals, deep sea minerals, offshore oil and gas, chemicals and freshwater from the sea. Offshore oil and gas is by far the most important non-living marine resources sector. In 1997, offshore oil production worldwide increased to 22.5 million barrels per day, representing nearly one third of the world's total oil production. In 2000, it was estimated that global offshore oil production increased to 27.5 million barrels per day.⁸³ With regard to deep-sea minerals, all the NOWPAP states are pioneer investors for poly-metallic nodules and in the process of obtaining exploration contracts.⁸⁴ Pollution arising in the exploration and exploitation and processing deep sea minerals accounts for only 1% of marine pollution, therefore the legal norms on this matter are not well developed.⁸⁵

In accordance with the UNCLOS, coastal States, in the EEZ, have sovereign rights for the purpose of exploring, exploiting, conserving and managing the natural resources, whether living or non-living (Article 56 (1)(a)). The non-living resources found outside of the national jurisdiction are considered as a part of the common heritage of mankind and shall be administered by the International Seabed Authority established by the Convention. With regard to the marine pollution caused by such exploitation, Article 208(1) of the UNCLOS provides that coastal States shall adopt laws and regulations to prevent, reduce and control

of the Secretary-General on the Ocean and the Law of the Sea, 1999, *supra* note 49, paras.249-253.

⁸¹ Ibid, paras. 282-284.

⁸² Report of the Secretary-General on the Ocean and the Law of the Sea, 1999, *supra* note 49, para. 290.

⁸³ Report of the Secretary-General on the Ocean and the Law of the Sea, 1998, *supra* note 49 para. 304.

⁸⁴ Report of the Secretary-General on the Ocean and the Law of the Sea, 1997, *supra* note 49, para. 256.

pollution of the marine environment arising from or in connection with sea-bed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to Articles 60 and 80. According to the same Article, States shall endeavour to harmonize their policies in this connection at the appropriate regional level. When States act through competent international organizations or diplomatic conference, they shall establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

In 1996, the Commission on Sustainable Development shared the IMO's conclusion that there was no compelling need at the time to further develop globally applicable environmental regulations in respect of the exploitation and exploration aspects of offshore oil and gas activities. The CSD encouraged States to continue relevant national and regional reviews and measures.⁸⁶ Clearly, the emphasis is put on national and regional arrangements, which made the NOWPAP more important and relevant in the future.

A big problem, however, in furthering international cooperation and international regulations is the delimitation of maritime space. The legal problem about delimitation between coastal states is likely to be more controversial with the increased activities of exploration and exploitation of non-living resources. For the NOWPAP states, the practical way at this moment is to freeze the claims and go ahead with regional cooperation within the framework of NOWPAP.

4.1.2.5. Critical Areas

Marine protected areas are established on the basis of wide variety of objectives. These may include the protection of the following areas: (1) ecologically or biologically important areas; (2) specific marine organisms; (3) important geological or geomorphologic processes; (4) beautiful seascapes; (5) cultural or historic sites; (6) recreation.⁸⁷

Several international treaties encourage the designation of marine protected areas by national governments, e.g. the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage; the 1971 Convention on Wetlands of International Importance especially as Waterfowl Habitat; the 1992 UN Convention on Biological Diversity. In 1991,

⁸⁵ Philippe Sands (1995), *supra* note 51, 330-333;

⁸⁶ Report of the Secretary-General on the Ocean and the Law of the Sea, 1996, *supra* note 49, paras. 138-140.

⁸⁷ Report of the Secretary-General on the Ocean and the Law of the Sea, 1998, *supra* note 49, para. 317.

the IMO issued a Guideline for the Designation of Special Areas and the Identification of Particularly Sensitive Sea Area. Attention was drawn to the need to coordinate these efforts.

Not all of marine protected areas require special protection from shipping activities. If so required, measures aimed at protecting a particular sea area from shipping activities cannot be taken unilaterally in areas beyond national jurisdiction. Coastal states have to submit their proposals to IMO for approval before designating such areas. The NOWPAP states all designated their protected areas respectively in accordance with their own environmental policies and laws.

4.1.2.6. Other Issues

Apart from those crucial issues, several other issues concerning marine environmental protection are also noteworthy. The first is maritime safety that is subject to several international treaties to which the NOWPAP states are parties. These treaties include the Convention on International Regulations for Prevention Collisions at Sea as Amended in 1972, the 1974 International Convention for the Safety of Life at Sea (SOLAS) and the 1989 International Convention on Salvage, etc. These treaties provide regulations and standards concerning ship construction, equipment, seaworthiness, etc. In November 1993, the IMO adopted the International Safety Management Code. The second is on the liability issue, such as the 1969 International Convention on Civil Liability for Oil Pollution Damage (and also the Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage), the 1971 International Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage (and also the Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage), the 1976 Convention on Limitation of Liability for Maritime Claims, etc. The third is on the issue of nuclear materials, such as the 1962 International Convention on the Liability of Operators of Nuclear Ships, the 1971 Convention Relating to the Civil Liability in the Field of Maritime Carriage of Nuclear Materials, the 1971 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof, etc.

4.1.3 Agenda 21

Apart from the above treaties and relevant international instruments, the most important effort to develop general rules for the protection of the marine environment is Chapter 17 of the Agenda 21, "Protection of the Oceans, all kinds of seas, including enclosed and semi-

enclosed seas, and coastal seas and the protection, rational use and development of their living resources” which was adopted at the United Nations Conference on Environment and Development in 1992 in Brazil.⁸⁸ Although Agenda 21 is not a legally binding document, it is the international community’s action plan for the earth. The essential role of implementation was emphasized in 2002 in the Johannesburg *Plan of Implementation of the World Summit on Sustainable Development (WSSD)*.⁸⁹ The plan sets deadlines for implementation actions, such as 2015 for the restoration of the world depleted fish stocks. Apart from providing goals for achieving the designated outcomes, the plan requires the international community to move towards greater responsibility and sustainability. Chapter 17 outlines proposals to guide subsequent international law-making, including the establishment of national coordinating mechanisms to develop land and water use policies; integrated coastal and marine management; preparation of coastal profiles; prior environmental impact assessment and systematic observation; disaster contingency plans; improvement of coastal human settlement (especially treatment and disposal of sewage, solid wastes and industrial effluents); and conservation and restoration of altered critical habitats.

4.2. NOWPAP States and Intergovernmental Organizations

International organizations provide forum for international cooperation in environmental protection. They also facilitate information exchange with regard to environmental protection. By passing resolution or declarations, they contribute to the development of “soft-laws” in environmental protection. Because of their more or less natural position, they are also entrusted with the function of dispute settlement.⁹⁰ The NOWPAP states actively participated in many intergovernmental organizations that have mandate on protection of the environment. As it is shown in the *Table 3: NOWPAP States and Relevant Intergovernmental Organizations*, these organizations may be divided into two groups: (a) the United Nations and its specialized agencies and (b) other international organizations.

4.2.1. The United Nations and its Specialized Agencies

The United Nations, its specialized agencies and other subsidiary bodies play the central

⁸⁸ Nicholas A. Robinson ed. *Agenda 21: Earth’s Action Plan*, Ocean Publication, Inc., 1993.

⁸⁹ See *Plan of Implementation of the World Summit on Sustainable Development*. The text is available from: http://www.un.org/esa/sustdev/documents/WSSD_POI_PDEnglish/WSSD_planImpl.pdf.

⁹⁰ Philippe Sands (1995), *supra* note 51, 67-68; Patricia W. Birnie & Alan E. Boyle, *International Law & the Environment*, Oxford University Press, 1992, 32-33.

role in developing international environmental laws and policies. The principal aim and purpose of United Nations is the maintenance of peace and security, so the United Nations Charter did not expressly mention environment. Since 1960s, however, the United Nations gradually expanded its competence to cover environmental matters in the practice of its organs. At present, the UN is the major forum of international environmental law-making. In the area of marine environment, the following UN organs, bodies and programmes are particularly relevant.

4.2.1. United Nations Environment Programme (UNEP)

Established in 1972 after the Stockholm Conference, UNEP is the only UN body exclusively dedicated to international environmental matters. The Regional Sea Programme promoted by the UNEP covers in total 18 regions across the world including NOWPAP.

4.2.2. United Nations Commission on Sustainable Development (CSD)

Pursuant to its mandate in Agenda 21, CSD was created in 1992 by the General Assembly and ECOSOC. Its principal objective is to ensure the effective follow-up of the UNCED, as well as to enhance international cooperation and rationalize the intergovernmental decision-making capacity for integration of environment and development issues and to examine the progress of the implementation of Agenda at national, regional and international level. The areas of examination cover oceans and seas.

4.2.3. Food and Agriculture Organization (FAO)

FAO, established 1945, is the only specialized agency of the UN with environmental mandate from its early stage of establishment, namely to promote the “conservation of natural resources and the adoption of improved methods of agricultural production”. The FAO sponsored many international treaties and created several international organizations in the field of fisheries and other areas. Fishery and marine production are important matters covered by the competence of the FAO.

4.2.4. International Maritime Organization (IMO)

IMO, formerly know as IMCO, was set up in 1948. Its objectives include the provision of machinery for cooperation among governments on regulation and practice relating to technical matters of all kinds affecting shipping engaged in international trade; encouraging the general adoption of the highest practical standards in matters concerning maritime safety;

and ensuring efficiency of navigation and the prevention and control of marine pollution from ships. The IMO has supported the negotiation and conclusion of a number of important international treaties concerning marine environment. They include the 1954 International Convention for the Prevention of Pollution of the Sea by Oil, the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention), the MARPOL 73/78, 1969 International Convention on Civil Liability for Oil Pollution Damage and the 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation, etc. The Marine Environmental Protection Committee (MEPC) of the IMO is competent to adopt amendments to those treaties like the MARPOL 73/78 and 1996 Protocol of London Convention.

4.2.2. Other International Organizations

Compared with other regional organizations, Asia has taken limited steps towards establishing regional organizations concerning environmental protection. Asia-Pacific Economic Cooperation (APEC) is a forum for regional consultation that covers environmental matters. More specialized organizations, e.g. Asian Pacific Fishery Commission, Indian Ocean Tuna Commission and Southeast Asian Fisheries Development Centre are playing increasingly important roles.

5. National Aspect

The NOWPAP states, in accordance with the obligations undertaken in relevant international treaties, promulgated laws and administrative regulations and issued national policies and strategies for the purpose of marine and coastal environmental protection, management and development. Institutional arrangements have also been made or adjusted for this purpose. The following part of this report will focus on the national aspect of the NOWPAP states.

5.1. Territorial Scope of Jurisdiction

Pursuant to the UNCLOS, the four NOWPAP states either revised existing laws or promulgated new laws concerning the territorial scope of their jurisdiction.⁹¹

⁹¹ United Nations, Report of the Secretary-General on the Law of the Sea, 1996, *supra* note 49, para.34; Report of the Secretary-General on the Law of the Sea: Law of the Sea, 1997, *supra* note 49, paras. 64-67.

On 15 May 1996, the Standing Committee of the National People's Congress of China issued a declaration upon ratification of the Convention. The Declaration announced that, firstly, the legal regime concerning the territorial sea established in the 1992 Law on the Territorial Sea and Contiguous Zone shall be maintained. Prior permission or notice is required for the passage of foreign warships in the territorial sea. Secondly, China claimed sovereign rights and jurisdiction over an exclusive economic zone (EEZ) of 200 miles and the continental shelf. With any state whose coast is either opposite or adjacent to the Chinese coast, the issue shall be negotiated and settled in accordance with the *equitable* principles in international law. On 16 July 1998, the Standing Committee of the National People's Congress promulgated the Law on the EEZ and Continental Shelf of the People's Republic of China.

As indicated in the previous part of this report, Japan adopted eight pieces of legislation for the purpose of implementation of the UNCLOS in 1996. These laws established legal regimes with regard to the territorial sea, contiguous zone, exclusive economic zone and continental shelf. Japan also claimed *sovereign and other rights* over an exclusive economic zone of 200 miles and the continental shelf. The *median line* or the line that may be *agreed* upon with an opposite state shall be used in determining the scope of marine territorial jurisdiction.

In 1995, Korea amended the 1977 Territorial Sea and Contiguous Zone Act that entered into force on 1 August 1996. The Act establishes rules with regard to the territorial sea, contiguous zone, exclusive economic zone of 200 miles and continental shelf. In relation to other states with adjacent or opposite coasts, the method for delimitation shall be the *median line*, unless otherwise *agreed* upon with the states concerned.

On 25 October 1995, Russia adopted the Federal Law on the Continental Shelf. It defines the continental shelf and continental margin as the prolongation of the landmass of the Russian Federation. The outer edge of the shelf extends up to 200 miles or, if beyond, up to a distance determined in accordance with the rules of international law.

5.2.National Marine Environmental Laws and Regulations

5.2.1. Land-based Source of Pollution

Land-based sources of pollution, as mentioned in the previous parts, are a major source of marine pollution for this region, so they are an important issue in the NOWPAP states'

environmental laws and regulations. The legal frameworks of the NOWPAP member states dealing with this source of pollution are mainly governed by several pieces of law due to the complexity of such a source of pollution. Thus, it is important to conduct good coordination among relevant laws in order to ensure the effectiveness of the laws.

In China, the relevant laws include the “Environmental Protection Law” (1989), the revised “Marine Environmental Protection Law” (1999), the “Regulation Concerning Prevention of Pollution Damage to the Marine Environment by Land-based Pollutants” (1990), the “Regulation Concerning Prevention of Pollution Damage to the Marine Environment by Coastal Construction Projects” (1990)⁹², the “Water Pollution Prevention and Control Law” (1996), the “Detailed Execution Rules of Water Pollution Prevention and Control Law” (2000), the “Water and Soil Conservation Law” (1991), the “Water Law” (1988), the “Fishery Law”(2000), the “Law on Prevention and Control of Pollution Caused by Solid Waste of PRC (amended)”(2004) and the “Agricultural Law” (1993), etc.

In Japan, the relevant laws include the “Water Pollution Control Law” (1970), the “Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances” (1974), the “Agricultural Chemicals Regulation Law” (1948), the “Environmental Impact Assessment Law” (1997), the “Sewage Law” (1958), the “River Law” (1964), etc.

In Korea, several laws are promulgated to control the land-based source of pollution. Point sources and non-point sources of pollution are controlled by the “Water Quality Conservation Act (1990)”. The law sets the discharge quality standard for discharges from industrial treatment facilities. The discharges from sewage treatment facilities are regulated by “Sewage Act (1990). Also, the discharges from livestock industries are regulated by the “Act on the Disposal of Sewage, Excreta & Livestock Wastewater (1990).” The sea water quality standard is set by the “Marine Pollution Prevention Act (MPPA, 1991).” Under MPPA, the specially managed area can be designated for the restoration of polluted sea area. The special waste discharge standards can be set and total daily maximum loads (TMDL) system can be introduced in the special management areas according to the law. MOMAF is preparing for the application of TMDL system to one of SMAs in 2007.

Russia also promulgated several laws in this regard, e.g. the “Water Code of the Russian Federation” (1995), the “RSFSR Act on Protection of the Natural Environment” (1991), and

⁹² The normal practice of Chinese environmental legislation is that the most important policy issues are dealt with in one framework law, like the “Marine Environmental Protection Law”(1999). In order to implement the framework law, one administrative regulation will be made later. However in the case of marine environment, perhaps due to its complexity, several administrative regulations were made.

the “Regulation on a State Control of the Use and Protection of Water Objects” (1997). Coastal fisheries in Russia are regulated by the legislation of Primorsky Krai: the Law of Primorsky Krai of 30 April 2002 N 220-KZ (ver. of 15 May 2006) on Fisheries Activity in Primorsky Krai, adopted by the legislative assembly of Primorsky Krai on 18 April 2002. The Resolution of the Primorsky Krai Administration of 13 April 2006 N 91-pa on Approval of the Provision on Department of Fishery of the Administration of Primorsky Krai established the administrative structure of fishery activity governance in the region. In addition to this law, there are other acts and regulations in Russia that deal with general fisheries issues, such as the Enactment of the Governor of Primorsky Krai of 18 February 2005 N 49-pg (ver. of 29 May 2006) on Primorsky Fishery Council and Order of the Governor of Primorsky Krai of 19 August 1996 N 884-r on Support of Fishery Science of Primorsky Krai.

5.2.1.1. Environmental Impact Assessment (EIA)

Environmental impact assessment or EIA, as an important tool for environmental protection and management, is employed by all the NOWPAP states. In China, the “Environmental Protection Law” (1979 on trial basis) provided the requirement of an EIA report. In 1986, the “Management Measures on the Environmental Protection for Construction Projects” was jointly issued by the State Council, State Planning Committee and State Economic Committee. In 1998, this Management Measures were revised and changed into a more formal “Management Regulation on the Environmental Protection for Construction Projects”⁹³. In 2002, the “Law on Environmental Impact Assessment of PRC” was promulgated.

In Japan, the EIA system started in 1970s in certain prefectures and administrative agencies. In 1981, the Japanese government submitted a legislative proposal on EIA to the Diet for approval but was rejected. In 1997, the “Environmental Impact Assessment Law” (No.81, 1997) was finally passed and is already in force.⁹⁴

In Korea, the “Environmental Impact Assessment Act” was promulgated in 1993.⁹⁵ The act is applied to the project that may cause negative impact to the environment. In 2001, the law has been undergoing major revision and was renamed as “Act on Assessment of Impacts of Works on Environment, Traffic, Disaster, etc.” In addition to the Act, Korean government

⁹³ The drafting of a more general law on EIA has been incorporated into the national legislative plan by the National People’s Congress of China.

⁹⁴ Japan Report (NOWPAP/2), 1998, *supra* note 4, 34-36.

⁹⁵ Ji-Hyun Lee, Yong-Hee Lee & Moon-Sang Kwon, Korean Report, 1998, *supra* note 4, 19.

mandated the pre-assessment of environmental impact prior to the planning by revising the Framework Act on Environmental Policy (1990). Under this law, certain construction project or planning should be assessed prior to the planning. The main aim for the prior assessment environmental impact policy is to ensure the sustainability of the environment.

In Russia, the laws containing provisions for EIA are found in the federal laws on Ecological Expertise and on the Protection of the Environment. Article 105 of Federal Water Code also provides provisions for EIA. Several normative legal acts have been adopted for further elaboration of these laws.

Two issues relating to EIA need more elaboration. The first is the scope of projects that requires EIA by law. According to the 1998 “Management Regulation on the Environmental Protection for Construction Projects” of China, two categories of projects require EIA. For those projects that will probably cause big impact on the environment, an “EIA Report Book” is required, which will conduct a comprehensive and detailed assessment. For those projects which will cause small impact on the environment, an “EIA Form” is required, which will only examine certain aspects of the impact. For those projects that will cause minor impact, no EIA is required but filing a record at the local EPB (Environmental Protection Bureau) is necessary. It is for the EPB to publish the list of the categories of projects.⁹⁶ In Japan, however, only one class of projects are expressly required the EIS (Environmental Impact Statement).⁹⁷ For Class 1 projects, exceeding a certain scale designated by an ordinance under the law, the proponent of such a project will be required to prepare an EIS without “screening process”. For Class 2 projects, smaller than Class 1 in scale but larger than a certain scale also designated by an ordinance, they should go through the “screening process” in which the competent authorities will determine the necessity of EIS. It means that not all Class 2 projects will require EIS.

In Korea, according to the Act on Assessment of Impacts of Works on Environment, Traffic, Disaster, etc., 63 projects that probably cause huge impact on the environment by city development, construction of roads, industrial facilities or development of energy are required EIS, which will conduct comprehensive and detailed assessment. The Ministry of Environment (MOE) in collaboration with Ministry of Maritime Affairs and Fisheries (MOMAF) is responsible for reviewing of the projects in which 23 items on 3 fields including

⁹⁶ In 1997, there were altogether 79,864 construction projects recorded nationally. Among them, 68,226 projects were reported to the SEPA and local EPBs for the purpose of EIA. There were 2,286 projects with EIA reports, 45,829 projects with EIA forms and 20,111 projects with records only. Therefore, about 85% of the construction projects have undergone EIA in China in 1997. 1998 Chinese Environmental Yearbook, *supra* note 41, at 617.

natural environment, living environment and social economic environment are evaluated in order to pursue the sound sustainable development and provide optimal environmentally sound and sustainable measures. For those projects that are less than the specified threshold in terms of quantity, area or other limit, competent authorities, mainly local government, will only examine certain aspects of the impact.

The second issue is public participation in the process of EIA. In Japan, the 1997 Environmental Impact Assessment Law introduced a “scoping process”. A proponent of a project should prepare a document about the scope of the EIS, which will describe how he or she will conduct surveys, predictions or evaluation of the environmental impact of the project. This document shall be made public to the local government concerned and those people who are interested in the project. Public opinions have to be considered not only in the process of scoping but also in process of preparation and revision of the EIS.⁹⁸

In China, Article 13 of the revised 1996 “Water Pollution Prevention and Control Law” provides that the opinions of the local units and residents should be incorporated in the EIA report on any new, expanded or renovated construction projects which will directly or indirectly discharge pollutants into the water body. This is the first provision in environmental laws concerning public participation in EIA in China. Article 15 of the 1998 “Management Regulation on the Environmental Protection for Construction Projects” provided a similar provision. On 18 March of 2006, SEPA issued the “Provisional Arrangement on Public Participation in EIA Process”.

In Korea, According to the law “Act on Assessment of Impacts of Works on Environment, Traffic, Disaster, etc.,” a proponent of a project should prepare a document how he or she will conduct surveys, predictions or evaluation of the environmental impact of the project, and the document should be made public to the residents and those people who are interested in the project. Public opinions should be incorporated in the process of preparation and revision of the EIS.

5.2.1.2. Land-Use Planning⁹⁹

Land-use planning (or zoning) is to make an integrated and overall land-use plan for various activities and facilities, i.e. industry, agriculture, transportation, etc., in order to achieve the objectives of sustainable development taking into account of the local natural,

⁹⁷ Japan Report (NOWPAP/2) 1998, *supra* note 4, at 35.

⁹⁸ *Ibid.*

social and economic conditions of a given place. It is an effective method to minimize the conflict of multiple land-uses and to prevent environmental pollution via rational geographical allocation. Due to the complexity of land-based pollution to the marine environment, the requirement of rational and effective land-use planning, especially in the coastal area, is important.

Article 23 of the 1998 Land Administration Law of China provides that plans for all-round harnessing of rivers and lakes and for their development and utilization shall be dovetailed with the overall plan for land utilization. Article 24 also provides that the government at all levels shall exercise close supervision over the plans for land utilization and keep control over total area of land to be used for construction. Moreover, the revised Marine Environmental Protection Law (1999) provides more restrictions in this aspect. Firstly, China will implement the system of “function zones” (exploitation zones, treatment and protection zones, nature reserve zones, etc.) in order to conduct rational exploitation of marine resources.¹⁰⁰ Secondly, the geographical allocation of discharging outlets along the coast is subject to more stringent control (Article 30). Thirdly, it is prohibited to build any new highly polluting plants (paper plant, chemical plant, electroplating plant, etc.) that are not equipped with sufficient pollution control and treatment facilities in the land near the coast. (Article 45)

In Korea, land-use planning is regulated by “Basic Law for Land Management” and “Act on Land Planning and Land Use (2002).” These two laws are administered by the Ministry of Construction and Transport (MOCT) of Korea. According to the “Basic Law for Land Management”, Korean government should plan the 20-year land-use planning. The land-use planning includes 5 hierarchical and inter-related plans that are National Plan, Provincial Plan, City Plan, Sub-regional Plan, and Sectoral Plan. According to the “Act on Land Planning and Land Use”, the land planning designated 4 functional areas that are city area, city-related management area, agricultural and forest area, and nature protected area. Each functional area should be managed by the comprehensive management plan. The land planning of coastal zone is managed by “Coastal Zone Management Act (1999).” The law is functioning in accordance with the “Act on Land Planning and Land Use (2002).”

In Japan, the Third National Land Use Plan (National Plan) was issued on 23 February 1996. It provides basic concept for national land use and basic direction of national land use by category. For coastal areas, more expectations are placed on such areas used for multiple

⁹⁹ It is not included in the UNEP “Report Format”, but the author think this is important and should be included..

¹⁰⁰ Article 6 of the newly revised Marine Environmental Protection Law (1999). See also LI Guoqing ed. Studies on China’s

purposes such as fisheries, marine transport and recreation. Therefore, such areas should be used comprehensively from a long-term viewpoint, by taking into account their natural and regional characteristics as well as economic and social trends, and by taking into account the integration between sea and land areas. In this case, consideration should be given to environmental conservation and use of such areas as water-amenity spaces opened to the people. Moreover, the coasts should be conserved in order to conserve the coastal areas' diverse ecosystems and to contribute to conservation of the national land and improvement of its safety.

In March 1998, Japan issued the 5th Comprehensive National Development Plan, also called "Grand Design for the 21st Century". Part II of this plan emphasizes the Basis for Development in Different Fields. Section 4 of Chapter I deals with Conservation and utilization of the ocean and coastal areas under the title of "National Land Conservation and Management". It states that: noting the rise in people's awareness of the importance of the global environment, and based on Japan's rights and obligations provided in the UN Convention on the Law of the Sea, it is essential to regard the ocean and coastal areas as common assets of humanity and as a valuable part of the country to be handed on to future generations in good condition. These areas will be utilized in multiple ways but should be properly looked after for future generations.

Japan believes that to enable diversified contacts between people and the sea, it is necessary to protect people's lives and property and to improve and develop coastal areas into safer areas, providing against natural disasters such as flood tides and tsunamis, and in response to the coastal erosions that can be observed throughout the country. For this, Japan is taking concrete measures to recover and create attractive and sound coastal environments where people and nature can coexist. Japan is going to develop seaside and coastal areas into multi-functional spaces that provide attractive views, public access and attractive waterfronts, promote cooperation and exchange among projects related to the seas. The national government will set clear guidelines for drawing up plans to support local public entities through national projects and by encouraging private and non-profit organizations to cooperate with the local entities. To improve the coastal environment, it is necessary to make long-term targets and step-by-step plans taking a wide view towards the recovery and creation of a favourable environment. It is also important to coordinate projects and plans between various entities. Each entity should plan and promote cooperation between the leaders of the

related entities. To make further use of the sea as the frontier of the 21st century, Japan is to develop new vessels and floating structures to improve basic marine productivity and promote technological development and the practical use of new technologies for the use of fishery resources, to conduct research and development into petroleum and natural gas on the continental shelf as well as other mineral resources on the deep sea floor. In order to protect and conserve the marine environment, Japan is to clarify the causes of and make accurate predictions on global phenomena such as global warming and climate changes, and also to deal properly with marine and coastal accidents, encourage marine studies, surveys, R&D, and data collection in cooperation with international organizations. Japan believes it is necessary to establish an international system of cooperation to implement marine resources development, management, surveys and research. It is also to establish an international oceanic order, and promote technological development.

In Russia, Articles 9-11 of the Land Code of the Russian Federation deals with the management and disposal of land areas under the federal property. By this law, The Russian Federation takes charge of land areas under the property of the RF subjects. Local government bodies manage land areas under the municipal property. The legal basics of demarcation of the state property on land into the federal property, RF Subjects property and property of municipal entities (municipal property) are determined by the Federal Law on Demarcation of the State Property on Land of No 101-FZ issues on 17 July 2001.

5.2.1.3. Water Resources and Water Pollution

The laws and regulations of the NOWPAP states concerning water resources and water pollution may be found principally in a single piece of law, e.g. the “Russian Federal Water Code” (1995) or in several pieces of laws and regulations.

In China, the regulations and rules concerning the protection and rational use of water resources are mainly found in the 1988 Water Law, the 1991 Water and Soil Conservation Law. The relevant rules concerning water pollution are mainly found in the 1996 Water Pollution Prevention and Control Law (revised) and the 2000 Detailed Execution Rules of Water Pollution Prevention and Control Law.

In Japan, the 1967 River Law put the focus on the prevention of floods and high tides and rational use of rivers and their water resources and environment of rivers. On the issue of water pollution, the principal piece of legislation is the 1970 Water Pollution Control law that has been amended for 13 times till 1996. Other laws relevant to this issue include the 1958

Sewerage Law which particularly laid down rules for public sewerage system, regional sewerage system and the storm-water collection system, and the 1983 Johkasou Law (Domestic Purification Tank Law) which aims at to regulate manufacturing, installing and managing Johkasou systems under a single legal system.

In Korea, the relevant laws concerning water resources include the 1961 Water Supply and Waterworks Installation Act, the 1994 Ground Water Act, the 1995 Management of Drinking Water Act and the 1995 Soil Environment Conservation Act. The major law on water pollution is the 1990 Water Quality Conservation Act.

In accordance with the laws concerning water pollution of the NOWPAP states, the focus is on the control and prevention of waste effluents. The basic approaches toward water pollution include direct control and economic incentives. In Japan, the “Total Pollutant Load Reduction Plan” by the prefectural governors is also employed. The principal measures include the following: (1) effluent control standards (at both national and local level); (2) permit; (3) discharge fees or dues; (4) penalty (civil and criminal). All the NOWPAP domestic laws require that waste effluents must be treated before their discharging into river, lakes or seas and other public waters. In China, discharge standards are concentration based. In the places where the water does not meet the overall water quality standards, the measures of total quantity control shall be employed.

In Korea, the Total Daily Maximum Loads (TMDL) systems are applied to 4 major rivers and special management areas (SMAs). Special laws for the 4 rivers management were enacted by 2004 and are under enactment for SMAs. Under TMDL system, the target water quality and the total allowable discharges are determined prior to the implementation of the TMDL system. The target and total discharges are determined by scientific research and consensus-building of residents of area. Then, the total allowable discharges of pollutants are allocated to the region.

In Japan and Korea, the discharge standard is based on the degree of contamination. Discharge permit is required explicitly in Korea and Japan but not explicitly in China. However, the 1996 Water Pollution Prevention Law of China provided mechanisms to address the problems related to discharge standard and permit (Article 10). Notably, non-point sources of water pollution, e.g. agricultural run-off, are specially targeted by the 1990 Korean Water Quality Conservation Act. (Articles 45-47) The “Permissible Agricultural Chemicals Residues Standards” may be made if necessary. Household effluent is particularly targeted by Japan’s “Sewerage Law” (1958) and the “Johkasou Law” (1983).

A big challenge that the NOWPAP states are facing now is how to improve the effectiveness of the laws concerning the protection of water resources. For example, the existing concentration based discharge standards applied in China is not sufficient to control the fast increasing quantity of effluent discharges, especially industrial effluents due to the rapid industrialization in many parts of the country. Chinese township and village enterprises (TVEs), though contributed a lot to the economic growth, caused serious problems of pollution due to the insufficient technology and fund in pollution control. As a last resort, the central government had to shut down 999 small plants along the Huaihe River that could not possibly have met the water discharge standards 1998 in the given period of time.¹⁰¹ Needless to say, the cost of such shutdown was very high. The question remains that how these small plants could have possibly been established and operated in the first place if the requirements of EIA and Three Synchronization Policy were effectively carried out.¹⁰²

5.2.1.4. Other Sources of Pollution

Moreover, other sources of pollution, e.g. coastal development project and air pollution also contributed to marine pollution. These sources of pollution have also been regulated by other laws in the NOWPAP states. So far as the air pollution, particularly the greenhouse gases, only Japan (Annex I state of the Kyoto Protocol) in the NOWPAP states is under an obligation to reduce greenhouse gases emission.

“In Japan, emission of various kinds of air pollutants (SO_x, NO_x, Particulate Matter, VOCs, metals etc.) from both stationary sources and automobiles is mainly regulated by the Air Pollution Control Law. In large cities, the emission of NO_x and Particulate Matters is more strictly regulated than in other areas by the Law Concerning Special Measures for Total Emission Reduction of Nitrogen Oxides and Particulate Matters from Automobiles in Specified Areas. The quality control of gases generated on ships is introduced in the Law Relating to Marine Pollution and Maritime Disasters in 2004 in accordance with the Annex VI to MARPOL 73/78.”

5.2.2. Ship-based Pollution

All the NOWPAP states are parties to the UNCLOS and MARPOL73/78. In

¹⁰¹ UNEP, UNEP (WATER) NOWPAP 1 G, 3/7, 1998, at 7.

¹⁰² It requires that the facilities for pollution control and prevention should be designed, constructed and operated along with the main development projects involving new construction, renovation, or reconstruction. See UNEP, Global Environment Outlook, *supra* note 5, at 158.

implementing these two major international treaties on ship-based pollution, the four states promulgated relevant laws and administrative regulations. The following issues may require further elaboration.

5.2.2.1. Regulatory Authority

Each country has its own regulatory system based on its special economic, political, legal and social structure. However, a common point in all the government structure is that the regulatory system should be effective and efficient. Therefore, in order to reduce the problems created by fragmentation of competing regulatory authorities in environmental protection, an integrated approach has been more and more widely adopted in many countries.

In Korea, the general authority to regulate activities in this aspect is conferred to a single government agency, the Ministry of Maritime Affairs and Fisheries (MOMAF). It incorporated all marine relevant functions from different ministries into one “super-agency”. In China, a different regulatory framework was adopted. In China, the competent agencies include the SEPA, the State Oceanic Administration, the Maritime Affairs Administration, the Fishery Administration and the coastal provincial authorities. Each of these authorities is responsible for different areas designated by the “Marine Environmental Protection Law”. In 1998 the Maritime Safety Administration under the Ministry of Communications and Transportation replaced the Harbor Superintendence.

Similar system is employed in Japan. Domestic regulatory systems corresponding to MARPOL 73/78 were prepared by the Ministry of Land, Infrastructure and Transport (MLIT) and the Ministry of the Environment (MOE). Inspections for the enforcement of those domestic systems are implemented by the MLIT and the Japan Coast Guard while the assessments of noxious substances are by the MOE.

5.2.2.2. Implementation of the MARPOL 73/78

As parties to the MARPOL, all the NOWPAP states have taken measures to regulate ship-based sources of pollution. The measures include requirement of installation of pollution control equipment in ships, discharge permit, water quality standards, restrictions on certain activities, like incineration at sea, emergency measures, etc.

Russian navy and its activities produce significant impact on marine environment so a special law was passed in this regard, “Rules on Prevention of Marine Pollution from Ships, Vessels and Coastal Objects of the Navy” (1974). It provides substantive and procedural rules

in this regard.

5.2.3. Dumping of Waste and other Matters

The NOWPAP states all participated in the 1972 London Dumping Convention. Ocean dumping of wastes and other matters are regulated in these countries. Dumping is permitted but in accordance with relevant laws and administrative regulations and rules.

In China, a special administrative regulation was issued by the State Council in 1985, “Regulation on the Management of Ocean Dumping”. In accordance with this regulation, dumping can be done only by permit. Wastes are divided into three categories, prohibited substances, substances with special permit and other wastes, according to the provisions of the 1972 London Dumping Convention. The permit specifies the quantity and category of the wastes to be dumped and also the time limit and the method of dumping. Dumping should be done in the dumping sites designated by the competent authority. Foreign wastes are prohibited from dumping within the jurisdiction of China. In order to regulate dumping activities, SOA made “Provisional Regulations on Dumpsites” in 2003. The regulation specifies application preparation, assessment for approval, selection of a dumpsite, authorization rights and procedures, monitoring and inspection of the dump site, etc. “Classification of Dredged Material Dumped at Sea and Assessment Procedures” and “Biologically Inspection Rules of Dredged Material Dumped at Sea” clearly stipulate the classification standards for dredged material dumped at sea, principles of the assessment of dredged material prior to the dumping, contents and requirements. By the end of 2005, 98 dump sites had been approved in China, and 7 of which were selected in 2003, and 78 dump sites were practically being used where dredged material were the main dumping waste. 528 dump permits were issued in 2005, and the quantity of dredged material dumped was 19.28 million cubic meters increased by 31.5% more than 2004. RMB 12.6 million Yuan dump fees were collected.

Similarly in Japan, ocean dumping is also permitted only with a “discharge confirmation certificate” issued by the Director-General of the Japan Coast Guard. Dumping by foreign (contracting party of the 1972 London Dumping Convention) ships is not altogether prohibited. Detailed rules with regard to application of the certificate, information provided in the application of the certificate, waste disposal record book, etc. are provided in the 1970 “Law Relating to Prevention of Marine Pollution and Maritime Disasters”. The category of wastes subject to dumping is listed in Waste Management and Public Cleansing Law. In light

of the ratification of the 1996 Protocol, the Law Relating to Prevention of Marine Pollution and Maritime Disasters was amended in 2004.”

In Korea, the dumping into the sea is regulated by Marine Pollution Prevention Act (1991). According to the law, dumping sites are designated, the limited dumping items are permitted, and permission certification for dumping is issued by the Commissioner General of Korea Coast Guard. Recently, Korean government announced the comprehensive plan for ocean dumping reduction. According to the plan, Korean government reduced the permissible items from 14 to 9 in 2006 and will reduce the dumping amount by half by 2011 compared to the dumping amount of 2004.

5.2.4. Exploitation of Marine Resources

Marine resources, living and non-living, gradually gained more and more attention with the decrease of resources available on land. The legal framework with regard to the exploration and exploitation these resources is divided into the following two parts.

5.2.4.1. Living Resources

Living resources have received more and more attention in the NOWPAP states in the past few years because more elaborate and detailed rules have been made. The basic approach of these regulatory rules is set limits to the quantity of catch since over-fishing is increasingly worse in this region. Catch permit is employed. In China, a period (normally two months) of no-fishing in all the adjacent seas is imposed. The “Law Concerning Conservation and Management of Marine Living Resources” (1996) of Japan provides the “Total Allowable Catch” (TAC) system in accordance with the UNCLOS. It set up detailed arrangement and rearrangement of the TAC. Certain fishing practice is prohibited.

The rational management and protection on living resources in Korea is performed by Fishery Protection Code, which contains the regulation for the control of fishing tackle as well as the establishment of a closed season for fishing and TAC etc. The Russian law, moreover, also set out catch quotas in order to ensure rational use of living resources. Spawning ground, rivers is protected in Primorsky Krai. Special arrangements with regard to certain endangered species are made for the sake of biodiversity. The basic normative legal act for the use and protection of wild animal is the “Federal law on Protection of the Wild Animals”. This normative act has provisions on the protection and utilization of animal

resources, as well as conservation and rehabilitation of its habitats aimed at biological diversity, conservation of the genetic fauna of wild animals and other animals as the integral component of the natural environment. The law establishes the types and ways of use of wild animal, among which the most common ones are hunting and fishing.

5.2.4.2. Non-living Resources

All of the NOWPAP states are granted the status of “pioneer investors” under the UNCLOS. Relevant laws and regulations were passed in this regard. The regulatory measures include EIA requirement, installation of pollution control equipment, license, etc.

5.2.5. Protection of Critical Areas

The NOWPAP states designated many areas either as “National Park” or “Protected (Conservation) Area”, or other similar areas with special protection. Such designation has been made by the central or local government according to the different significance of such areas. Within such areas, certain activities, e.g. construction and mining, are restricted or prohibited.

5.3. National Marine Environmental Policies and Strategies

National policies and strategies, though not binding legal norms, play important role in the environmental protection and management. Apart from the environmental laws and regulations, all the NOWPAP states issued various national policies and strategies relevant to marine environmental protection and coastal development. From the evolution of the environmental norms, some of them originally came from more soft documents, e.g. declarations, policies, and strategies. Therefore, it is important that attention should be given to these legal documents. Another reason for review of such documents is that these documents, especially the more comprehensive economic, social and environmental policies, produce direct impact on the marine environment and coastal management and development.

5.3.1. General Economic, Social and Environmental Policies

In 1996, China published the 9th Five-Year Plan for National Economic and Social Development and the Outline of the Long Term Target for the Year 2010 and the 9th Five-Year Plan for State Environmental Protection and the Outline of the Long Term Target for the Year 2010. Both documents put environmental protection high on the agenda. In 1992, China

set out “China Agenda 21 – White Paper of Population, Environment and Development of China in the 21st Century”.

The Tenth Five-Year Plan for Environmental Protection was made by SEPA, together with the National Development and Planning Committee, State Economic and Trade Commission and Ministry of Finance in December 2001. The Plan reviewed the situation of environmental protection since the “Ninth Five-Year Plan” and presented the current status quo. It set forth guiding principles, objectives, plans, and tasks for environmental protection, and also specified detailed measures to guarantee the implementation. The Plan has sections for marine environmental protection.

The 1994 Japanese Basic Environmental Plan sets out the basic concepts and long-term objectives of environmental policy. It aims to ensure that all sectors and groups will share the common understanding and cooperate with each other for the conservation of the environment.¹⁰³ The Plan was revised in 2000 so as to incorporate the latest development of environmental policies.

In 1995, Korea established the National Plan for Preservation of the Marine Environment for five-years (1996-2000). The plan sets out seven basic objectives: i) implement the precise analysis on the source of marine pollution and secure the precautionary measures, ii) shift the focus of the marine pollution management from the follow-up measures to precautionary measures, iii) draw up and implement the measures for ameliorating environment in accordance with the area-specific characteristics of the sea water, iv) promote the innovative management of the marine environment through the development and utilization of the scientific knowledge, v) enhance the institutional capacity to conserve the marine environment in all aspect, vi) strengthen the regional and international cooperation to effectively manage the marine environment of the regional seas, vii) improve the public awareness concerning the conservation of the marine environment and stimulate self-participation to the action. The plan pursues a precautionary marine environment management policy rather than concentrating on post-treatment in dealing with ocean pollution, and contains five policy objectives and 83 specific tasks. In 2006, the new national plan will be set out for the period of 2006 – 2010.¹⁰⁴

At present, Russia has established the plan for the state natural Zapovedniks and national parks in 2001-2010. It was approved by the Enactment of the RF Government of 23 May

¹⁰³ Japan Report (NOWPAP/2) 1998, *supra* note 4, at 44.

¹⁰⁴ Ji-Hyun Lee, Yong-Hee Lee & Moon-Sang Kwon, Korean Report (NOWPAP/2), 1998, *supra* note 4, 39.

2001 N 725-r. On 27 December 2000, the Department of the Natural Environment Protection and Ecological Safety under the Ministry of Natural Resources, taking into account the importance of the specially protected natural territories, approved the “Basic Directions of the Development and Arrangements for Activities of the State Zapovedniks of the Russian Federation by 2010”.

5.3.2. Policies and Strategies for Marine Environment and Coastal Development and Management

In China, the most comprehensive and basic policy document is the “China Ocean Agenda 21” issued by the State Oceanic Administration in 1996.¹⁰⁵ The overall objective of this document is to construct a well-cycling marine ecosystem in order to formulate a scientific and reasonable ocean development system for the promotion of the sustainable development of marine economy. The strategic principles include the following: (1) to take the development of the ocean economy as the core task; (2) to develop at a moderately fast speed; (3) to pursue an integrated development on both land and sea; (4) to develop the ocean by relying on science and education; and (5) to coordinate various developments.¹⁰⁶ There are four other actions relating to environment protection in China.

First, the Bohai Sea Blue Sea Plan was initiated by SEPA from February 1999 to February 2001 joining together relevant departments of State Council, local governments along the Bohai Sea, relevant science research institutes and universities. The Plan deals with rationale for action, principles, phases and objectives, general situation of social economics of Bohai Sea areas, status of ocean waste disposal, main environment problems, action schemes, phased action plan, design, compendium and inspection plans. It also includes technical support, organization, and supervision plans.

The State Council approved the Plan with an emphasis on its importance and instructions to relevant agencies of State Council and local governments of Bohai Sea to work together to bring the pollution to Bohai Sea environment under control. By the end of 2004, 125 Bohai Sea Plan projects had been accomplished and 87 projects are ongoing. The investments have reached RMB16.39 billion Yuan accounting for 59.3% of the total. It is expected that by 2010, the quality of Bohai Sea environment will be improved, and the damage of ecological environment can be recovered. By 2015, the quality of Bohai Sea environment will be seen

¹⁰⁵ State Oceanic Administration (China), *China Ocean Agenda 21*, China Ocean Press, 1996.

¹⁰⁶ Ibid, 7-10.

improved significantly and ecosystem will be in a much better condition.

Second, in September 2002, the scheme for Sea Functioning Zones was headed by SOA under the Ministry of Land and Resources. This is to divide the oceans into various function zones according to location, natural resources, environment and development demand and utilization. Such sea functioning zones provide scientific basis for the utilization and management of the seas and the protection of marine environment so as to guarantee national economic and social development. The sea functioning zones include inland waters, territorial sea, contiguous zone, EEZ, continental shelf and other sea areas within the jurisdiction of China. The State Council commented on the sea functioning zones, being the foundation for ocean utilization, management and environmental protection, are granted lawful effect and should be strictly implemented.

Third, the SEPA issued “Coastal Functional Zones of China”. It is a major approach to monitor the environment protection according to the regulations. It is significant for China to implement the basic national policy and to achieve the objectives of national environmental protection by partitioning the coastal zones by function and administer them effectively in accordance with law.

Fourth, the Committee for National Development and Improvement, Ministry of Land and Resources and SOA compiled “Guidelines for the Development of National Marine Economy”. The Guidelines dwells on marine industries including marine fishery, maritime transportation, offshore oil & natural gas, coastal tourism, shipbuilding, sea salt & chemistry industry, seawater desalination & utilization, marine pharmaceuticals. The Guidelines comments on the status of Chinese marine economy and points out existing problems, and confirms the task and direction of marine industries. It also designs the layout of marine economy and clarifies main measures for marine resources conservation and economic developments. While distributing the guidelines, the State Council emphasized that: “Being a depository of abundant living resources, oil and gas, and minerals, the oceans are significant to develop marine industries that are in turn fundamental to rational development of coastal economies and industrial structures so as to maintain fast growing and sustainable national economy.”

The recent developments of Japanese policies for coastal development and management are the following: (a) 2000 Guidelines for Integrated Coastal Zone Management Plans: it indicates the basic direction to be followed in order to establish and promote the various plans of local authorities and other private interests that are positively involved in the

comprehensive management of coastal zones. (b) Policies for the Promotion of Japan's Long-term Marine Development in the Year 2000 and beyond (1998). (c) Long-term Basic Plan and Measures of Promotion for Marine Development (2002).

In 2001, Korea set out the Ocean Korea 21, the strategic plan for the ocean and coastal development. This plan provides that the government shall, taking into account of the importance of sustainable development, adopt necessary measures and arrangements for rational coordination between marine environment and marine development. It is built on the following four bases: (1) establishment of a national management regime; (2) maximization of social and economic value of ocean resources; (3) enhancement of marine environmental quality; and (4) reinforcement of ocean technologies, oceanographic surveys and national ocean services.

In Russia, similar policy document on marine environment and coastal development is found in the water act, entered into force on 1 January 2005. It provides a significant funding increase for water economy. The new draft Water Code is mostly connected with the necessity to change the ecological policy in this field due to worsening environment. The Russian President signed the new "Water Code of the Russian Federation" - № 74-FZ, adopted by the Russian State Duma. This Code, entered into force on 1 January 2007, is to improve the lawful use of water by defining more clearly that waters are under the federal property, as well as the order of transition to new relations of water consumption.

6. Conclusions and Suggestions

It has been noted from the above overview that the marine environmental challenges in this region are ever more alarming. Eutrophication and red tides, oil spills, habitats destruction, over-fishing are only a few examples of the deterioration of the marine environment in this region. No single state can possibly solve these problems effectively alone. This is the reason why it is the objective of the NOWPAP to develop and adopt a harmonious approach towards more integrated coastal and marine environmental planning and management on the basis of protection, restoration, conservation and sustainable use.¹⁰⁷ Coordinated measures among the NOWPAP states are necessary and crucial in order to achieve the above objective. It is urgent that the NOWPAP states should conduct more active and coordinated regional cooperation in meeting environmental challenges together. Due to the limited information available at this stage, the author has intended only to make some

preliminary conclusion and suggestions.

6.1. Legal Frameworks of the NOWPAP States

Legal frameworks are the basis and guarantee of the development and adoption of harmonious approach towards more integrated coastal and marine environmental planning and management. Up till now, all the NOWPAP states have already established their legal frameworks for the development and management of the coastal and marine environment. Due to the historical, political, economic, social and cultural reasons, the NOWPAP states adopted different legislative, administrative and judicial systems. In order to achieve the NOWPAP objectives, the first challenge or task is how to make their legal systems known or understood by other partners because better understanding of each other is the beginning of collaboration. Each state should be able to know and understand the existing and changes of relevant legislative, administrative and judicial system of other partners. For example, this can be done by a virtual network on Internet. One advantage is, in developing their own legal rules, the NOWPAP state will take into account the approaches of other partners on the given issue. Another advantage is, any new relevant legal rules promulgated by one NOWPAP state may produce substantial environmental impact on the others so the other partners should be able to find them from the network at least. Still another advantage of such a network will provide the basis for more active public participation, improve the mutual trust and understanding among the partners and the peoples so it will eventually contribute to the promotion of the efficiency and effectiveness of the regional arrangements.

6.2. International Aspect

The NOWPAP states have participated in most relevant environmental treaties and organizations. With regard to the issues covered by those treaties, gaps still exist, e.g. land-based sources of pollution. It is the major source of pollution, but no legally binding international document is currently in place at the global level. Positive progress has been made since the adoption of the Global Programme of Action (GPA). Further regional measures are necessary and indeed should be strengthened if these sources of pollution are to be put into control because it is a problem of regional rather than global nature.

Many environmental treaties only established a general legal framework, so it is for the

¹⁰⁷*Supra* note 1, at 2.

contracting party to take necessary measures to achieve the objectives and targets. In the past few years, the effective implementation at national and regional level has become a focus in more and more global environmental treaties, due to the nature of some environmental issues, such as coastal development and marine environment. Without effective implementation by the national authority, these treaties remain only on paper. At this stage, it is not clear whether relevant treaties have been effectively implemented or not in the NOWPAP states. For example, are all the domestic laws of the NOWPAP states consistent with the rules of these treaties? What are the tools employed by the NOWPAP states to enforce the rules of the treaties domestically, etc.? Therefore, the NOWPAP states should devote enough attention to the implementation of environmental treaties.

Moreover, the balance between uniformity and flexibility of the legal norms in a treaty is always crucial to the success of a multilateral treaty. On one hand, there must be certain basic and important norms that all the parties should obey. But at the same time, it has been proved by international practice that the flexible “phase-in” compliance could be more effective and practical. In this regard, the principle of “common but differentiated responsibility”, endorsed in many environmental treaties, should play a role in the NOWPAP regional arrangements. Some states may bear more responsibility than the others either because they contributed more to the environmental problems or because they are more capable of assuming more responsibility. Certain fair and balanced financial arrangements should be considered in order to make regional agreements effective and efficient. The legal frameworks of the four states shares some common features, but it has to be admitted that due to the disparity in economic, social, political and legal systems of these states, each state has different priorities at different stages of economic development. Common interest should take account of individual interest and vice versa. A successful cooperation should accommodate individual interest but not to be distorted by it. The objectives and targets may be set at the minimum level and leave discretion to the individual state to take appropriate or more stringent measures to satisfy the objectives and targets. The practice of European integration has provided us some useful experiences for the future NOWPAP activities. Another relevant issue is transfer of clean technology and the protection of intellectual property. Land-use planning and EIA are important tools for the improvement of marine environmental quality but they alone cannot solve the problem of continuous use of obsolete and polluting technology. A difficult issue in sharing clean technology is the protection of intellectual property. Certain arrangements should be made within the framework of the NOWPAP in this regard or substantial financial

arrangements ought to be made for this purpose.

6.3. National Aspect

From the review of the both legal and non-legal documents of the NOWPAP states, the preliminary conclusion is that all the NOWPAP states have already established domestic legal frameworks for the protection and management of marine environment. All the crucial issues have been covered to a certain extent. No obvious gap was left according to the information available at this stage. The gaps in this overview are the gaps of knowledge concerning relevant laws and institutions of the NOWPAP states, particularly concerning implementation of the laws and policies and related difficulties and challenges. The most important issue is how to improve the effectiveness of such legal framework and coordination of government authorities.

Sustainable development for marine environment is not a mere political statement. In order to achieve sustainable development, environmental thinking should be integrated into decision-making about agriculture, industry, trade, investment, research and development, infrastructure, finance and management.¹⁰⁸ The root causes of environmental problems (exploitation of resources, energy generation and clean technologies, etc.) should be tackled. Environmental policies should move away from strictly sectoral issues to encompass broad social considerations in order to achieve lasting impact.

Direct regulation (the command-and-control formula) is the traditional way of environmental regulation. It has been widely used by the NOWPAP states in their environmental laws. Unfortunately, it is not always most cost-effective tool. Other measures, such as the economic incentives, should be promoted in environmental legislation. The combination of different tools may well improve the effectiveness of environmental regulation. Since the NOWPAP states have different legal systems, e.g. constitutions, public and private laws, any NOWPAP regional arrangements in this aspect should take into consideration of these differences.

Last but certainly not the least, public participation should also be promoted. It is not enough only to put public participation as a general principle. The domestic environmental laws should, in both substantive and procedural laws, make more accessible for the public to participate the cause of environmental protection.

Table 1: NOWPAP States and Multilateral Environmental Treaties*

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|--|---------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|---------------------------------|----------------------------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 1 | Convention on the High Seas | 29/4/58 Geneva | 29/9/62 | | | 10/7/ 68 | | 10/7/ 68 | | 30/9/ 62 ? 22/11/ 60 ? | | |
| 2 | Convention on the Continental Shelf | 29/4/58 Geneva | 10/6/64 | | | | | | | 10/6/ 64? 22/11/ 60? | | |
| 3 | Convention on the Territorial Sea & the Contiguous Zone | 29/4/58 Geneva | 30/6/64 | | | | | | | 10/9/ 64 | | |
| 4 | United Nations Convention on the Law of the Sea (UNCLOS) | 10/12/82 Montego Bay | 16/11/ 94 | 7/7/ 96 | | 20/7/96 | | 28/2/96 | | 1/5/95 | dispute settle- ment | |
| 5 | Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 | 28/7/94 | 16/11/ 94 | 28/7/ 96 | | 28/7/ 96 | | 28/7/ 96 | | 28/7/ 96 | | |

* The data concerning China and Japan in the above table has been reviewed by the national experts from the two states, however, the data concerning Korea and Russia has not yet been reviewed by the national experts from the two states.

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|--|---------------------------|--------------------------|--|-----------|--------------------------|---------------|--------------------------|-----------------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 6 | Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks | 4/8/95 | Not yet in force | 6/11/96 (S) | | | | | | 4/8/97 | | |
| 7 | International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 1973) | 2/11/73 London | | | | | | | | 10/7/74 (S) | | |
| 8 | Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 73/78) | 17/2/78 London | 2/10/83 | (An. I) 2/10/83 (An. II) 6/4/87 | | 2/10/83 | Annex: I & II | 23/10/84 | | 3/2/84? 3/11/83 ? | | |
| 9 | Annex III: Harmful substances carrier in packaged forms | 2/11/73 | 1/7/92 | 13/12/94 | Annex: IV | 1/7/92 | | 28/5/96 | Annex: III & IV | 1/7/92 | | |
| 10 | Annex V: Garbage | 2/11/73 | 31/12/88 | 21/2/89 | | 31/12/88 | | 28/5/96 | Annex: V | 31/12/88 | | |
| 11 | Convention on the International Regulations for Preventing Collisions at Sea, 1972, as Amended | 20/10/72 London | 15/7/77 | 7/1/80 | | 15/7/77 | | 29/7/77 | | | | |
| 12 | International Convention for the Safety of Life at Sea, 1974 (SOLAS) | 1/11/74 London | 25/5/80 | 25/5/80 | | 25/5/80 | | 31/3/81 | | 25/5/80 | | |

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|-----------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 21 | Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969 | 27/11/92 London | 30/5/96 | | | 30/5/96 | | 8/3/93 | | | | |
| 22 | International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 | 18/12/71 Brussels | 16/10/78 | | | 16/10/78 | | 8/3/93 | | 15/9/87 | | |
| 23 | Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage, 1971 | 27/11/92 London | 30/5/96 | | | 30/5/96 | | | | 22/11/94 | | |
| 24 | International Convention on the Liability of Operators of Nuclear Ships | 25/5/62 Brussels | not yet in force | 25/5/62(S) | | | | | | | | |
| 25 | Convention Relating to the Civil Liability in the Field of Maritime Carriage of Nuclear Materials | 17/12/71 Brussels | 15/7/75 | | | | | | | | | |
| 26 | Convention on Limitation of Liability for Maritime Claims, 1976 | 2/5/76 London | 19/11/76 | | | 1/12/86 | | | | | | |
| 27 | Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter | 29/12/72 London, etc. | 30/8/75 | 15/12/85 | | 14/11/80 | | 19/1/94 | | 29/1/76? 30/12/75? | | |

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|--|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 28 | Amendments to Annexes to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter Concerning Incineration at Sea | 12/10/78 | 11/3/79 | 14/12/85 | | 14/11/80 | | 20/1/94 | | 11/3/79 | | |
| 29 | Amendments to Annexes to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter | 24/9/80 | 11/3/81 | 14/12/85 | | 11/3/81 | | | | 11/3/81 | | |
| 30 | Protocol of 1996 Relating to the Prevention of Marine Pollution by Dumping of Wastes and Other Matter | 7/11/76 London | | | | | | | | | | |
| 31 | Agreement to Promote Compliance with International Conservation and Management Measure by Fishing Vessels on the High Seas | 12/11/93 | Not yet in force | | | 20/6/2000 | | | | | | |
| 32 | Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and under Water | 5/8/63 Moscow London Washington | 10/10/63 | | | 15/6/64 | | 24/7/64 | | 10/10/63 | | |
| 33 | Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the | 11/2/71 London Washington | 18/5/72 | 28/2/91 | | 18/5/72 | | 25/6/87 | | 18/5/72 | | |

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|--|---------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| | Subsoil Thereof | Moscow | | | | | | | | | | |
| 34 | Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques | 18/5/77 Geneva | 5/10/78 | | | 9/6// 82 | | 2/12/ 86 | | 5/10/ 78 | | |
| 35 | United Nations Framework Convention on Climate Change | 9/5/92 New York | 21/3/94 | 21/3/ 94 | | 21/3/ 94 | | 21/3/ 94 | | 28/5/ 95 | | |
| 36 | Kyoto Protocol to the United Nations Framework Convention on Climate Change | 10/12/97 Kyoto | 16/2/05 | 29/5/98 (S) | | 16/2/05 | | 30/10 02 | | | | |
| 37 | Vienna Convention for the Protection of the Ozone Layer | 22/3/85 Vienna | 22/9/ 88 | 10/12/ 89 | | 29/12/ 88 | | 27/5/ 92 | | 22/9/ 88 | | |
| 38 | Montreal Protocol on Substances that Deplete the Ozone Layer ¹⁰⁹ | 16/9/87 Montreal | 1/1/ 89 | 12/9/91 | | 1/1/ 89 | | 27/5/ 92 | | 1/1/ 89 | | |
| 39 | Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal | 22/3/89 Basel | 5/5/ 92 | 20/8/ 92 | | 16/12/ 93 | | 29/5/ 94 | | | | |
| 40 | Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal | 22/9/95 Geneva | | 31/10/ 99 (Ratify) | | | | | | | | |

¹⁰⁹ The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer was amended 4 times: the London Amendment of 1990; the Copenhagen Amendment of 1992; the Montreal Amendment of 1997 and the Beijing Amendment of 1999. It was also adjusted 5 times till the present.

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|---------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 41 | Convention on Biological Diversity | 5/6/92 Rio de Janeiro | 29/12/93 | 29/12/93 | | 29/12/93 | | 1/1/95 | | 4/7/95 | | |
| 42 | Convention on Wetlands of International Importance Especially as Waterfowl Habitat | 2/2/71 Ramsar | 21/12/75 | 31/7/92 | | 17/10/80 | | | | 11/2/79 | | |
| 43 | Protocol to Amend the Convention on Wetlands of International Importance Especially as Waterfowl Habitat | 3/12/82 Paris | 1/10/86 | | | 26/6/87 | | 28/7/97 | | 11/2/92 | | |
| 44 | Amendment to Articles 6 and 7 of the Convention on Wetlands of International Importance Especially as Waterfowl Habitat | 3/6/87 | 1/5/94 | | | 1/5/94 | | | | 1/5/94 | | |
| 45 | Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) | 3/3/73 Washington | 1/7/75 | 8/4/81 | | 4/11/80 | | 7/10/93 | | 13/4/92 | | |
| 46 | Amendment to Article XI of the Convention on International Trade in Endangered Species of Wild Fauna and Flora | 22/6/79 | 13/4/87 | | | 13/4/87 | | 7/10/93 | | 1/1/91 | | |
| 47 | Amendment to Article XXI of the Convention on International Trade in Endangered Species of Wild Fauna and Flora | 30/4/83 Gaborone | | 7/7/88 (Accept) | | | | | | | | |
| 48 | International Convention for the Regulation | 2/12/46 | 10/11/ | 24/9/ | | 21/4/ | | 29/12/ | | 10/11/ | | |

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|---------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| | of Whaling | Washington | 48 | 80 | | 51 | | 78 | | 48 | | |
| 49 | Protocol to the International Convention for the Regulation of Whaling | 19/11/56 | | | | 4/5/59 | | 29/12/87 | | 4/5/59 | | |
| 50 | International Plant Protection Convention | 6/12/51 Rome | 3/4/52 | | | 11/8/52 | | 8/12/53 | | 24/4/56 | | |
| 51 | Convention Concerning the Protection of the World Cultural and Natural Heritage | 23/11/72 Paris | 17/12/75 | 12/3/86 | | 30/9/92 | | 14/12/88 | | 12/1/89 | | |
| 52 | The Hague Convention for the Protection of Culture Property in the Event of Armed Conflict, and its protocol | 14/5/54 Hague | 7/8/56 | 5/1/02 | | | | | | | | |
| 53 | International Convention for the Safety of Life at Sea, 1974 as amendment in 1991 | 23/5/91 London | 1/1/94 | 4/1/94 | | | | | | | | |
| 54 | The May 1995 Amendments to International Convention for the Safety of Life at Sea, 1974 | 16/5/95 London | 1/1/97 | 1/1/97 | | | | | | | | |
| 55 | The November 1995 Amendments to International Convention for the Safety of Life at Sea 1974 (ch-II-1, II-2, III, IV, V, VI) | 29/11/95 London | 1/1/97 | 1/1/97 | | | | | | | | |
| 56 | 1997 (Chapters II-1, V) Amendments to the International Convention for the Safety of | 4/6/97 London | 1/7/99 | 1/7/99 | | | | | | | | |

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|---------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 63 | Stockholm Convention on Persistent Organic Pollutants | 22/5/01 Stockholm | 17/5/04 | 13/8/04 | | | | | | | | |
| 52 | Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances, 2000 (HNS Protocol) | 15/3/00 London | | | | | | | | | | |

- Notes:** 1. Sources of information in the table include: NOWPAP Country Reports (NOWPAP/2); United Nations Treaty Collection: <http://www.un.org/Depts/Treaty/> ; On-Line ENTRI Environmental Treaties: <http://sedac.siesin.org/pidb/pidb-home.html>; The Fridtjof Nansen Institute, Green Globe Yearbook 1997; SEPA, Collection of International Environmental Treaties to which China Concluded and Signed, (zhongguo dijie he qianshu de guoji huanjing tiaoyue ji) Xueyuan Publication, 1999; Philippe Sands, Richard Tarasofsky and Mary Weiss eds., Documents in International Environmental Law , Manchester University Press, 1995.
2. “Re” and “De” in the tables refers to “Reservation” and “Declaration” by the parties.
3. “S” in the tables refers to “Signature”; “E” in the tables refers to “Entry into force”.
4. “Pa” and “Ag” the tables refer to “Participation” and “Agency”.

Table 2: NOWPAP States and Regional Environmental Treaties & Other Documents*

| No | Title | Date & place of signature | Date of entry into force | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|---------------------------|--------------------------|--------------------------|----------|--------------------------|----------|--------------------------|----------|--------------------------|----------|------|
| | | | | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | Date of entry into force | Re or De | |
| 1 | Agreement on the Network of Aquaculture Centres in Asia and Pacific | 8/1/88 Bangkok | 11/1/90 | 11/1/90 | | | | | | | | |
| 2 | Plant Protection Agreement for the Asia and Pacific Region | 1956 Rome | | 6/6/90 | | | | 4/11/81 | | | | |
| 3 | Convention Establishing a Marine Scientific Organization for the North Pacific Region (PICES) | | | 30/10/92 | | 24/3/92 | | 1/8/95 | | 16/12/94 | | |
| 4 | Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Region | 1981 | | | | | | 1994 | | | | |
| 5 | Action Plan for Managing the Natural Resources and Environment of the Northwest Pacific Region (NOWPAP) | 1994 | | | | | | 94 | | | | |
| 6 | Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean | 11/2/92 Moscow | 16/2/93 | | | 16/3/93 | | 05/03 | | party | | |
| 7 | Convention on the Conservation and Management of Pollock Resources in the | 16/6/94 Washing- | 8/12/95 | 9/95 (Ratify) | | 21/12/95 | | 12/95 | | | | |

* The data concerning China and Japan in the above table has been reviewed by the national experts from the two states, however, the data concerning Korea and Russia has not yet been reviewed by the national experts from the two states.

| | | | | | | | | | | | | |
|--|--------------------|-----|--|--|--|--|--|--|--|--|--|--|
| | Central Bering Sea | ton | | | | | | | | | | |
|--|--------------------|-----|--|--|--|--|--|--|--|--|--|--|

Table 3: NOWPAP States and Intergovernmental Organizations*

| No | Name of the Organization | Date of Establishment | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|--|-----------------------|-------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|------|
| | | | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | |
| 1 | United Nations Environment Programme | 6/72 | | | | | 72 | | | | |
| 2 | United Nations Development Programme | 11/65 | | | | | 71 | | | | |
| 3 | United Nations Industrial Development Organization | (1/1/67) 21/6/85 | 21/6/ 85 | | 21/6/ 85 | | 21/6/ 85 | | 21/6/ 85 | | |
| 4 | United Nations Education, Scientific and Cultural Organization | 4/11/ 46 | 4/11/ 46 | | 2/7/ 51 | | 14/6/ 50 | | 21/3/ 54 | | |
| 5 | International Maritime Organization | 17/3/58 | 1/3/ 73 | | 17/3/58 | | 10/4/ 62 | | 24/12/ 58 | | |
| 6 | World Meteorological Organization | 23/3/ 50 | 11/3/ 73 | | 10/9/ 53 | | 16/3/ 56 | | 23/3/ 50 | | |
| 7 | World Health Organization | 7/4/ 48 | 7/4/ 48 | | 16/5/ 51 | | 17/8/ 49 | | 7/4/ 48 | | |
| 8 | International Atomic Energy Agency | 29/7/ 57 | | | 29/7/57 | | 57 | | | | |
| 9 | Food and Agricultural Organization | 16/10 45 | 1/4/ 73 | | 21/11/ 51 | | 25/11/ 49 | | | | |
| 10 | World Food Programme | 24/11/ 61 | | | | | | | | | |

* The data concerning China and Japan in the above table has been reviewed by the national experts from the two states, however, the data concerning Korea and Russia has not yet been reviewed by the national experts from the two states.

| No | Name of the Organization | Date of Establishment | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|--|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------|
| | | | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | |
| 11 | International Fund for Agricultural Development | 11/12/77 | | | | | | | | | |
| 12 | World Bank | (IBRD) 27/12/45 (IDA) 24/9/60 | | | 14/8/52 | | 55 | | | | |
| 13 | Asian Development Bank | | 10/3/86 | | 22/8/66 | | 22/8/66 | | | | |
| 14 | Global Environment Facilities | 1/7/94 | | | | | | | | | |
| 15 | Commission for Sustainable Development | 16/2/93 | | | | | 93 | | | | |
| 16 | Organization for Economic Cooperation and Development | | | | 28/4/64 | | 96 | | | | |
| 17 | International Development Association | 24/9/60 | 24/9/60 | | 27/12/60 | | 18/5/61 | | 16/6/92 | | |
| 18 | International Center for the Study of Preservation and Restoration of Cultural Property | | | | 19/12/67 | | 22/7/68 | | 2/4/91 | | |
| 19 | International Council for the Exploration of the Sea | 22/7/57 | | | | | | | | | |
| 20 | International Oil Pollution Compensation Fund | 11/12/78 | | | | | 8/3/93 | | | | |

| No | Name of the Organization | Date of Establishment | CHINA | | JAPAN | | KOREA | | RUSSIA | | Note |
|----|---|------------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------|
| | | | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | Date of Pa | Contacting Agency | |
| 21 | Asian Pacific Fishery Commission (71 Fund) | 16/10/78 | ? 23/7/93 | | 16/10/78 | | 19/1/50 | | | | |
| 22 | Asian Pacific Fishery Commission (92 Fund) | 30/5/96 | | | 30/5/96 | | | | | | |
| 23 | Southeast Asian Fisheries Development Center | | | | 28/12/67 | | | | | | |
| 24 | Indian Ocean Tuna Commission | | | | 26/6/96 | | 27/3/96 | | | | |
| 25 | World Trade Organization | 1/1/95 | | | | | 1/1/95 | | | | |
| 26 | Convention between the United States of America and Republic of Costa Rica for the Establishment of the Inter-American Tropical Tuna Commission | 31/5/49 (S) 31/3/50 | | | 1/7/70 | | 12/05 | | | | |