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Regional Overview on Legal Instruments, Institutional Arrangements and Programmes Related to Marine Litter in the NOWPAP Region

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Regional Overview on Legal Instruments, Institutional Arrangements and Programmes Related to Marine Litter in the NOWPAP Region

List of Acronyms

COD	Council on Ocean Development of Japan
EEZ	Exclusive Economic Zone
EPL	Environmental Protection Law of the People's Republic of China
FAO	Food and Agriculture Organisation of the United Nations
FMB	Fisheries Management Bureau of the People's Republic of China
IMO	International Maritime Organisation
KMI	Korea Maritime Institute
KORDI	Korea Ocean Research & Development Institute
MALITA	Marine Litter Activity
MEPNR	Ministry of Environmental Protection and Natural Resources of the Russian Federation
MEPL	Marine Environmental Protection Law of the People's Republic of China
MLIT	Ministry of Land, Infrastructure and Transport of Japan
MOA	Ministry of Agriculture of the People's Republic of China
MOE	Ministry of Environment of the Republic of Korea
MOERI	Maritime and Ocean Engineering Research Institute (former KRISO, Korea Research Institute of Ships and Ocean Engineering)
MOMAF	Ministry of Maritime Affairs and Fisheries of the Republic of Korea
NGOs	Non-governmental Organisations
NOWPAP	Northwest Pacific Action Plan
SEPA	State Environmental Protection Administration of the People's Republic of China
SOA	State Oceanic Administration of the People's Republic of China
UNEP	United Nations Environment Programme

1. Introduction

Northwest Pacific Action Plan (NOWPAP) has initiated the Marine Litter Activity (MALITA) since its approval by the Tenth NOWPAP Intergovernmental Meeting (Toyama, Japan, November 2005) to address the marine litter problem in the Northwest Pacific region. This project is a part of UNEP global initiative on marine litter where 11 UNEP individual Regional Seas Programmes participate, including NOWPAP. In the NOWPAP MALITA project, marine litter, also known as marine debris, is defined as any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment.

The overall goal of the MALITA project is to develop (and eventually implement) a Regional Action Plan on Marine Litter in the NOWPAP region. In order to develop the Regional Action Plan, a series of activities has been undertaken: a review of the existing legal and administrative instruments, institutional arrangements and programmes related to marine litter in the region; collection of data and information on the current status of marine litter; organization of workshops and meetings to exchange information and views between the member states; development of monitoring and sectoral guidelines to provide practical and technical assistance to the member states. A variety of public awareness activities (e.g., publication of brochures and leaflets, organization of the International Coastal Cleanup campaigns) has also been implemented to highlight the severity of the marine litter problem to stakeholders concerned as well as to the general public and to encourage their active participation in coping with the marine litter problem towards changing people's attitude and behaviour. Details of MALITA implementation can be found at the NOWPAP website (<http://www.nowpap.org>)

As a part of the MALITA implementation, this regional overview has been prepared based on the national reports on legal and administrative arrangements to deal with marine litter in the NOWPAP member states. These national reports are attached as Annexes. The objective of this document is to review existing legal and administrative instruments and arrangements related to marine litter at the national and regional level in order to identify barriers, gaps and needs in relation to the prevention, control and management of marine litter. The findings of this overview on legal and administrative aspects, including suggestions and recommendations, will be reflected in developing the NOWPAP Regional Action Plan on Marine Litter.

2. National Laws and Regulations

2.1. Laws and Regulations

With diverse geographical and political contexts, the four NOWPAP member states have some common circumstances and trends within national laws and regulations for marine environmental protection. They have all established a comprehensive set of laws and regulations to address the environmental issues. Major national laws and regulations containing basic requirements for the control of marine litter and other solid wastes are listed below:

Table 1: Major National Laws related to Marine Litter

China	Japan	Korea	Russia
Environmental Protection Law	Basic Environmental Law	Maritime Pollution Prevention Law	Environment Protection Law
Marine Environmental Protection Law	Basic Act on Ocean Policy	Public Waster-Surface Management Law	Water Code
Regulations on the Control of Pollution in the Exploration and Exploitation of Offshore Oil and Gas	Law on the Examination and Regulation of Manufacture, etc.	Waste Management Law	Production and Consumption Wastes Law
Law on the Control of Ocean Waste Dumping	The Seacoast Law	Open-Port Regularity Law	EEZ Law
Regulations on Prevention of Pollution Damage to the Marine Environment by Coastal Construction Projects	Cabinet Order of Waste Management and Public Cleansing Law	Ocean Development Basic Law	Internal Wasters, Territorial Sea, and Contiguous Zone Law
Law on the Control of Environmental Pollution by Ship-based Wastes	Waste Management and Public Cleansing Law	Environmental Policy Basic Law	Regulation on Waste Disposal and other Kinds of Abuse
Regulations on Prevention of Pollution Damaged to the Marine Environment by Land-based pollutants	Establishment Law of the Ministry of Land, Infrastructure and Transport	Law on the Promotion of Waste Treatment Equipment Installation and Vicinity Support	Instructions on Preventing Pollution from Fishing Ships.
Regulations on the Control of Pollution from Ship Dismantling	Port and Harbour Law	Coast Management Law	Polluted Harbor Waters Cleanup Operation Rules
Regulations on Strengthening the Management of Plastic Package Wastes along Main Roads, in River Basins and at Tourist Attractions	Law Related to the Prevention of Marine Pollution and Maritime Disaster	Law relating to the Transboundary Movement and Treatment of Marine Debris	Compulsory Regulations on Sea Ports

These national laws and regulations of the NOWPAP member states cover the major sources of marine environmental pollution including land-based sources, ship-based sources, coastal mining, construction projects, offshore oil and gas exploitation, waste dumping to the marine environment, and ship dismantling operations. Detailed analyses on these legislations are provided in their respective national reports, a brief description is provided below.

2.1.1. China

The legal framework of China relates to conservation of natural resources and protection of the environment is crystallised in Articles 9 and 26 of its Constitution (amended in 2004). In order to implement these articles, the Chinese Government has adopted a series of laws and regulations. The Environmental Protection Law of China (EPL) was put into force in 1989 to protect the environment from pollution and to safeguard human health. Based on the objectives of the EPL, the Marine Environment Protection Law of China (MEPL) was adopted in 1982, amended in 1999, and was put into force on 1 April 2000. As China's first national law on marine environment protection and the principal law in the field, the MEPL sets up its principal objectives to protect the marine environment, conserve marine resources, prevent pollution, maintain the ecological balance, safeguard human health and to promote sustainable economic and social development.

2.1.2. Japan

Japan governs its oceans through a series of sectoral ocean policies for shipping, fishing, environment, and maritime safety, *etc.* Most strategies, policies and plans stem from the Basic Environmental Law (1993) which forms the basic structure of Japanese environmental laws and policies. It declares the basic principles of Japan for environmental policy, defines the responsibilities of each actor in the society, and prescribes the policy instruments to protect the domestic and global environment. Also, the Basic Act of Japan on Ocean Policy was approved in 2007. Under this law, the government shall establish the Basic Plan on Ocean Policy in order to implement measures on marine issues in comprehensive and planned manners. Headquarters for the promotion of comprehensive marine policies was established under the Cabinet in July 2007.

2.1.3. Korea

Korean Constitution, enacted in 1948, has been amended several times. Within its framework, Korea has enacted several national laws for the control of marine pollution. Maritime Pollution Prevention Law is to prevent the pollution to the marine environment by the discharge of harmful substance or industrial wastes. Korean Law on the Public Management of Water-Surface serves as an administrative regulation to eliminate any harmful effect upon the use of public water-surface by leaving boat, discarded material, sunken ship, and moored vessel. The Law on Open-Port Regularity provides that marine litter, such as waste timber, derelict fishing gear, stone and sand, is prohibited from dumping into the sea within 10 kilometers of the port boundary.

2.1.4. Russia

The Constitution of Russia was adopted in 1993. Within its framework, the Russian Environment Protection Law, Federal Law No.7 was adopted in 2001, and put into force in 2002. It sets the basic policy for environmental protection and ecological safety. It defines the notion of environmental damage, negative impact caused by environmental pollution resulting in the degradation of ecosystem and depletion of natural resources. This law stipulates that pollution prevention and responding measures should be developed, and facilities without pollution control are prohibited from operation. A set of requirements are to be met when establishing protective zones to ensure sustainable natural ecosystems.

2.2. Monitoring and Supervision

Monitoring and supervision is crucial to the effectiveness of laws and regulations, and the NOWPAP states have set up monitoring programmes for marine environmental protection.

China has established a nationwide monitoring and supervision network to assess environmental quality and release data at a regular basis. However, marine litter is not the monitoring target in this network. China has carried out a series of campaigns to raise the public awareness for marine environmental quality, and taken particular programmes to the monitoring of red tide zones, marine reserves, key pollution discharge outlets, and fishery waters. China has published annually the Report on the State of the Environment, Report on the State of the Fishery Eco-environment and notices on the special monitoring results over the marine environment.

Over the past few decades, Japan has improved the monitoring and control of environmental pollution. These tasks have been arranged by various agencies regarding the recovery, transport, and treatment of marine litter and to understand situations of marine litter control.

The national report of Korea indicates that offshore and sea-bed marine litter monitoring and its database on collecting materials has been operating, however, no further information is available on the effectiveness of this system.

Russia established a state monitoring system for pollution and port waters clearing in the 1990s. The monitoring programmes nationwide are conducted on a unified geo-information basis in order to have the data compatible with that obtained through other types of environmental monitoring.

2.3. Other Programmes, Initiatives and Specific Activities

Impacts of marine litter on tourism, fishing and boating, habitat, wildlife and human health and safety have been recognized in the four states and addressed particularly in Japan and Korea through programmes, initiatives and specific activities, such as beach/river cleanups and recycling programmes, *etc.*

(China: Relevant information was not provided)

Japan has a programme on washed-up litter along its coastal lines, and several agencies of the Japanese government have developed some projects to address the problem. Local municipalities and volunteers have made efforts to clean the litters along the coastal lines. Ministry of Land Infrastructure and Transport has directly operated a project on Marine Environment Improvement. Part of this project is to collect drifting litter and oil at the targeted areas. As Natural Disaster-related Large-scale Emergency Countermeasure, a project was launched to clean the driftwood along the Japanese coast by the Ministry of Land Infrastructure and Transport and the Ministry of Agriculture, Forestry. Emergency disposal practices of driftwoods have been implemented by local municipalities to deal with urgent cases of the driftwoods washed up. Actions against litter sources have also been taken to instruct and enlighten people and agencies related to marine affairs by the Ministry of Foreign Affairs and the Ministry of the Environment. A Governmental Countermeasure Meeting was established in April 2006 by Director-generals of concerned ministries or bureaus to develop a structure on practical measures against drift marine litter.

Major Korean efforts in establishing a comprehensive framework for marine litter control is conducted through close cooperation among civil, governmental, and research sectors. This has contributed to setting up of a new paradigm in overall Korean marine environmental policy including the development of relevant national policies and educational programmes to raise public awareness on marine litter issues. In 1999, the MOMAF of Korea initiated a national project to develop integrated management strategies and guidelines on marine litter at national level. The project had been carried out mainly by the Maritime and Ocean Engineering Research Institute (MOERI, former KRISO)/Korea Ocean Research and Development Institute (KORDI) and Korea Maritime Institute (KMI). The project calls for "Practical Integrated Treatment System for Marine Litter" and practical facilities have been developed categorized with prevention technology, field survey technology, recovery technology and recycling technology. In addition to the Polluter Pay Principle, a project called "Fishing Gear Buy Back Programme" has been carried out since 2003, and a Marine Debris Purchasing Institution has been set up. Policy and education workshops for local environmental NGOs have been organized to raise the public awareness on marine litter through education and public relations activities (2001). The MOMAF proclaimed the third Friday of each month as "Ocean Clean-up Day", and to call on all citizens to voluntarily participate in the oceanic environment preservation activities.

Currently, Korea has set up a river basin management system to control the massive waste flow through related local government's watershed. Such a system is to harmonize marine litter prevention efforts for the central government and local governments. With the support of MOMAF, it is to establish and a new council body operating in cooperation with local government in river basin based on the "Polluter Pays Principle". There is also a liability-management system for dumping marine litter into the ocean. MOMAF also strives to implement a 5-year comprehensive management plan on marine litter, and the plan is to become a independently pan-national comprehensive plan in the coming year.

In Russia, most litter pollution is found from the coast, especially plastic bags and bottles of local origin in port waters and on the shore. In March 1990, the Russian Rules on Polluted

Harbor Waters Cleanup Operation was put into force by the USSR (Union of Soviet Socialist Republics) Ministry of Merchant Shipping Instructive Letter (No. 29). Specific activities have been taken to clean up the coastal-sourced pollution including the City Territories Accomplishments Programme and "Waste" Target-Oriented Programme for 2005-2011 in Primorsky Krai. The end of 2005 witnessed the establishment of an interdepartmental cleaning-up commission on the Peter the Great Gulf under the sponsorship of the Primorsky Krai Governor with a top priority to organize actions on cleaning the port waters of Vladivostok from oil and wastes.

3. Institutional Arrangements and Programmes

Despite differences in structures and functions of national authorities (ministries), local governments, institutes, NGOs and other entities, the four NOWPAP states have achieved progress in strengthening institutional mechanisms for the protection of marine environment. A brief description of each member is provided below.

3.1. China

Despite the long history and powerful system of central planning, the management and supervision of China's marine affairs is shared within a number of governmental agencies such as the State Oceanic Administration (SOA), State Environmental Protection Administration (SEPA), Fisheries Management Bureau and Fishing Port Superintendency (FMB) under the Ministry of Agriculture, Harbor Superintendent Administrations, and the Environment Protection Department of the Armed Forces.

According to Article 7 of the Chinese EPL, SEPA is the competent authority to conduct unified supervision and management of the environmental protection tasks throughout the country. SOA is responsible for policy and administration of national marine/ocean issues in China. SOA also takes charge of the organisation of survey, monitoring and surveillance of the marine environment, conduct of scientific research and pollution prevention from offshore oil exploration and exploitation and wastes dumping at sea. The FMB is responsible for marine fishery resources and related matters including the supervision of pollutant discharge by fishing boats. The State Harbour Administrations are responsible for supervision, investigation and disposal of pollutant discharge by ships, surveillance of harbour waters and pollution prevention to the marine environment caused by vessels. The environmental protection department of the armed forces is responsible for the supervision of pollutant discharge by military vessels and surveillance of navel port waters. The environmental protection organs of the local people's governments in coastal areas are responsible for environmental protection work of pollution prevention from coastal construction projects and land-sourced pollutants.

In China, marine surveillance and enforcement responsibilities for these functions are also divided among different organisations. The major surveillance forces include the State Ocean Surveillance within the SOA system, the Fishery Superintendency under the FMB, the Harbour Superintendency under the Ministry of Communication, China Customs, the Public Security Authority, and the Frontier Agencies and Military Policy Marine Patrol Contingent under the Public Security Authority. The subordinate divisions of these agencies within the local

governments at or above the county level take a role in the management of marine environment and may formulate more rigid local standards to cover areas within their administration.

3.2. Japan

Japan has a similar style as that of China regarding ocean management, but operates in a quite different way. Various laws are implemented through a number of governmental agencies, but an integrated and comprehensive approach is adopted in handling marine related issues. The key marine litter related institutions that dominate the governance of marine issues include the Ministry of the Environment, the Ministry of Agriculture, Forestry and Fisheries and the Ministry of Land, Infrastructure and Transport. In situations where an issue requires the cooperation of other agencies, responsibility is extensively shared.

In Japan, information exchange and discussion on ocean management and future development is the function of a 20-member Council on Ocean Development (COD). The COD's primary purpose is to promote ocean development over the long term. It is not a policy coordination body, but does inform and advise national ocean issues and focus on national ocean policy debate in anticipation of future developments, such as drafting a Ten-Year Plan for the 21 Century. The Central Environment Council and other branches were established for environmental protection. The Japan Coast Guard, consists of several departments, is one of the Bureaus responsible for the enforcement of marine laws except in cases where the use of force is needed. Its Guard and Rescue Department is responsible for the maintenance of public order, response to oil pollution incidents and the search and rescue. Local municipalities, Prefectures and some cities are responsible for waste disposal, waste treatment, coast and port management, development of fisheries ports and fishing grounds under various governmental agencies such as the Ministry of the Environment and Waste and Recycling Department. Local authorities are involved in the day-to-day port management.

3.3. Korea

Compared with China and Japan, the Korean government has quite different institutional system for marine affairs. In Korea, the Ministry of Maritime Affairs and Fisheries (MOMAF), established in 1996, is almost the sole governmental institution responsible for marine affairs. MOMAF is also responsible for the development of marine resources and protection of the marine environment. MOMAF is divided into a number of different sections each of which has a specific function. Besides MOMAF, the Ministry of Environment (MOE) has its own function and roles regarding environmental protection in inland areas. The cooperative and integrated mechanism between MOMAF and MOE is essential to effectively manage and control the land-based activities. While affairs and responsibilities of the two ministries have been incorporated into the National Comprehensive Plan for Marine Environmental Conservation, more consolidated cooperative approach needs to be introduced on the basis of legal or institutional framework. MOMAF and MOE formulated the Governmental Directive on the Establishment of Cooperating Body to address the land-based environmental issues in 2006.

The central and local governments also share the responsibility for protection of ocean with MOMAF.

3.4. Russia

The Russian Federation governs its ocean related activities by sectoral-based administrative structures where ministries and departments share the responsibilities. The Ministry of Environmental Protection and Natural Resources (MEPNR) and the Department of Natural Resource and Environmental Protection of the Central Administration share the responsibilities for decision-making with other federal executive bodies.

Apart from other functions, the Department of the State Policy in the Environment Protection ensures the implementation of the protection and management of the biological resources; protection and conservation of the marine environment in Russian internal waters, territorial seas, EEZ and continental shelf. Department of International Cooperation in the Environment Protection and Nature Management cooperates within the framework of intergovernmental and interdepartmental treaties, agreements, and programmes relating to environmental protection issues. Administration of Sea Port is subordinated to the Federal Agency of Sea and River Transport. The Ministry of Transport of the Russian Federation is engaged in rendering state services and safety provision on merchant fleet of shipping organization.

4. National Implementation of Relevant International Conventions

There are no international conventions and agreements to deal with the marine litter problem directly as a whole. However, several conventions and agreements such as the London Convention, MARPOL Convention, and Basel Convention are related to the marine litter issues. The ratification status for each of them and relevant national regulations of the NOWPAP member states are listed below. Actions from the four states in the implementation of these international conventions and agreements will be discussed respectively at a later stage.

Table 2: Ratification of Int'l Conventions and Relevant National Laws

Convention (agreement)	China	Japan	Korea	Russia
London Convention (date entered into force: 30/8/75)	15/12/85 Regulations on Control over Waste Dumping to the Marine Environment	14/11/80 Law Relating to the Prevention of Marine Pollution and Maritime Disaster	01/1/94 Marine Pollution Prevention Law	29/1/76
MARPOL Convention (date entered into force: 2/11/73); MAR	(An.I)2/10/83 (An.II)6/4/87 (An.III & IV) 13/12/94 (An.V)21/2/89	(An. I & II) 2/10/83 Law relating to the Prevention of Marine Pollution and	An. I/II 1984, III 1996, IV 2004, V 1996 Law relating to the Marine	3/2/84 (An. III) 1/7/92 (An. V) 31/12/88

POL 73/78 (17/2/78)	Regulations on the Prevention of Vessel-based Pollution	Maritime Disaster (Law No.136 of 1970)	Pollution Prevention Law	generally based on MARPOL 73/78 Convention
Basel Convention (date entered into force: 5/5/92)	20/8/92 Regulations on Prevention of Pollution to Environmental by Solid Waste (30/10/95/ revised 1/4/2005)	16/12/93 Waste Disposal and Public Cleansing Law (Law No.137 of 1970) and Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (Law No.108 of 1992)	29/5/94 1994 Law relating to the Transboundary Movement of Marine Debris	Federal Law No. 49-FZ, 25/11/94 Ratification of Basle Convention on the Control of Trans-boundary Carriage of Hazardous Wastes and their Disposal
GPA (1995 Non-binding)	Agreed member	Agreed member	Agreed member	Agreed member

4.1 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 and 1996 Protocol

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972 and 1996 Protocol (London Convention and 1996 Protocol) as one of the first global conventions to protect the marine environment from human activities and the 1996 protocol to the Convention entered into force in 1975 and in 2006, respectively. The objective of both the convention and protocol is to protect and preserve the marine environment from all sources of pollution and take effective measures to prevent, reduce and where practicably eliminate pollution caused by dumping or incineration at sea of wastes or other matter. The current regime is based on a full prohibition of dumping, except for a limited number of wastes such as sewage sludge. It recognizes that persistent plastics and other persistent synthetic materials interfere materially with fishing, navigation or other legitimate uses of the sea because they may float or may remain in suspension in the seas, and prohibits in principle dumping of plastics at sea. At national level, the four states in the NOWPAP region have all taken measures to strengthen the supervision and management of waste dumping.

China implemented the London Convention by adopting Regulations on Control over Wastes Dumping to the Marine Environment in 1985. The Chinese law reflects the legal framework and

many of its requirements and control waste-dumping through the application of different permit. The permit specifies the quantity and category of the wastes to be dumped and also the time limit and the method of dumping. SOA and its agencies are responsible for matters concerning the wastes dumping to the ocean. In 2003, SOA made "Provisional Regulations on Dumpsites", which specifies the application procedures, assessment for approval, selection monitoring and inspection of a dumpsite, etc.

In Japan, only limited types of wastes obtain permission by the Minister of the Environment and a "discharge confirmation certificate" is issued by the Commandant of the Japan Coast Guard. Standards on the collection, transport and disposal of municipal solid waste are set up in its Cabinet Order. Detailed rules with regard to application of the certificate, information provided in the application of the certificate, waste disposal record book, standards pertaining to the place and method of ocean disposal, etc. are defined by the Law Relating to the Prevention of Marine Pollution and Maritime Disaster (Law No. 136 of 1970). The category of wastes subject to dumping is listed in Waste Management and Public Cleansing Law. To line up with the 1996 Protocol, the Law No. 136 of 1970 was amended in 2004.

Korea has adopted laws to control the dumping of wastes into the ocean. Major sources of marine litter are regulated under the London Convention and the national legislations such as the Marine Pollution Prevention Law (1991). According to this law, dumping sites are designated, limited dumping items are permitted, and certification for dumping permit is issued by the Commissioner General of Korea Coast Guard. Korean government also announced the comprehensive plan to reduce ocean wastes dumping. According to this plan, the 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.

(Russia: Relevant information was not provided)

4.2. International Convention for the Prevention of Pollution from Ships

International Convention for the Prevention of Pollution from Ships (MARPOL 73/78 Convention) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The convention includes regulations aiming at preventing and minimizing pollution from ships with six technical Annexes. Among them, Annex V, covering in principle all kind of vessels, deals with different types of garbage and specifies the distances from land and the manner in which they may be disposed of. The Annex V implements regulations (e.g., garbage record books, placards, etc.) to a great extent onboard the ships.

International Maritime Organization (IMO) has adopted Guidelines for the Implementation of the MARPOL 73/78 Convention and has also worked extensively on the issue of port reception facilities on the regulatory level. In addition, a number of recommendation such as the need for waste management plans, have been adopted.

In the NOWPAP region, all the four states are parties to the MARPOL 73/78 Convention. China, Japan and Korea have ratified the all the annexes, and they have all taken measures to

regulate ship-based pollution by promulgating relevant laws and administrative regulations. The measures include requirement of installation of pollution control equipment in ships, discharge permit, water quality standards, restrictions on certain activities, such as incineration at sea and emergency responses.

To implement the MARPOL 73/78 Convention, China adopted the Regulations on the Prevention of Vessel-based Pollution. Discharging garbage from ships is strictly prohibited. Ports and terminals are required to establish adequate garbage reception facilities. Illegal and deliberate discharge garbage from ships would result in grave prosecution by the enforcement authorities. Plastic products should not be cast off into the sea, and granulated domestic garbage and kitchen wastes can only be cast off after pulverization treatment.

In Japan, domestic regulatory systems corresponding to MARPOL 73/78 Convention were prepared by the Ministry of Land, Infrastructure and Transport (MLIT). The specific law dealing with the discharge of wastes from a ship is the Law Relating to the Prevention of Marine Pollution and Maritime Disaster. Enforcement inspections are carried out by the MLIT and the Japan Coast Guard.

In Korea, the Law on Marine Pollution Prevention is operated within the framework of the MARPOL 73/78 Convention. The general authority of Korea to regulate activities in this aspect is conferred to MOMAF that incorporates all marine related functions of different ministries into one agency.

The legal instruments of Russia pertaining to the prevention of marine pollution from ships are generally based on the MARPOL 73/78 Convention, such as the Fishing Fleet Instructions on Preventing Pollution from Ships. Many provisions of this law take the exact demand of the MARPOL 73/78 Convention. As the Russian navy and its activities produce significant impact on the marine environment, "Rules on Prevention of Marine Pollution from Ships, Vessels and Coastal Objects of the Navy" (1974) was passed to provide substantive and procedural rules in this regard.

Besides adopting legal instruments to implement the MARPOL 73/78 Convention, the NOWPAP member states have taken efforts to improve the legal status of port waste reception facilities to ensure the consistency with relevant international conventions and agreements.

In China, ports, docks, loading/unloading spots and shipyards are required to be equipped with proper facilities to avoid vessel-induced pollutants. Failure to do so will be prosecuted and/or fined. Venues as such are required to draw up contingency plans and to equip with corresponding contingency equipment to deal with oil spills.

Japan enforced the national legal status of port waste reception facilities in accordance with the Law relating to the Prevention of Marine Pollution and Maritime Disaster (Law No. 136 of 1970 as amended through Law No.68 of 1998) and the Port and Harbor Law (Law No. 218 of 1950). The port management bodies are required to provide construction of treatment facilities for discharged oil, noxious liquid substances and wastes. To ensure the construction of proper

equipment, the port management bodies are also required to manage and operate waste landfill seawalls and marital waste treatment facilities.

Korea has also enforced the national legal status of port waste facilities with the Marine Pollution Prevention Law (Article 46). The harbor management office shall install and operate the storage facilities in a port to store wastes such as oil, etc. leaking from ships entering into and out of a port or from the marine facilities.

The national report of Russia mentioned that the Russian sea ports are equipped with facilities to receive garbage from ships. However, there are grave problems hindering the effective protection of the sea from pollution by garbage, such as the lack of clearly defined regulatory background for the prevention of pollution from land-based sources and for the port waters, and too many water users within the port water areas without the supposed result for a responsible cleanliness of the adjacent water areas.

4.3. Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal

The Basel Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention) addresses the problem and challenges posed by the transboundary movements and the environmentally sound management of hazardous wastes and other wastes. Under the scope of the convention, marine litter from land-based sources is concerned. Technical Guidelines for the Environmentally Sound Management of Hazardous and Other Wastes, adopted by the Parties to the Basel Convention, would also be related to the marine litter problem: such as the Technical Guidelines on Wastes Collected from Households; the Technical Guidelines on Specially Engineered Landfill; and the Technical Guidelines for the Identification and Environmentally Sound Management Plastic Waste and for their Disposal.

The corresponding legal document of China for the Basel Convention is Law on Prevention and Control of Environmental Pollution by Solid Waste. Based on this law, some detailed regulations are further developed including Measures on the Management of Duplicated Form for Transfer of Hazardous Wastes, National Catalogue of Hazardous Wastes, and Interim Provisions on Administration of Environmental Protection on Import of Waste.

The Japanese national laws have fully reflected the requirements and standard of international conventions and treaties. The Japanese Law on Waste Management and Public Cleansing Law (Law No.137 of 1970) and the Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (Law No.108 of 1992) deal with matters related to the Basel Convention.

The requirements of the Basel Convention are reflected in the Korean national law (1994 Law relating to the Transboundary Movement of Marine Debris). As Korean efforts to integrate the policy on marine environmental protection and to improve the administrative action plan on marine litter, MOMAF has carried on the political direction to the pre-interception of debris occurrence spot, quick treatment of marine litter, and resources recycling. However, further

improvement for appropriate measures is needed for Korean laws to meet the international standard and agreement.

Russia ratified the Basel Convention in November 1994 by the Federal Law No. 49-FZ on Ratification of Basle Convention on the Control of Trans-frontier Carriage of Hazardous Wastes and their Disposal.

4.4. Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities

GPA was adopted in 1995 to prevent degradation of the marine environment from land-based activities by facilitating implementation of the obligations of States to protect the marine environment. It is generally recognized that some 80% of the marine pollution originated from land-based human activities. More specially, GPA identifies litter as a contaminant together with others such as sewage, persistent organic pollutants, heavy metals, oils and radio-active substances.

The NOWPAP member countries pay greater attention to the pollution from land-based sources, and relevant environmental laws and regulations in each member state have been adopted to control pollution of this kind. Relevant strategic action plans have been in place or are to be adopted to mitigate the adverse impact of pollution from land-based activities on the coastal and marine environment.

China has taken part in the GPA actions as one of its members. At regional level, China has been involved in regional programmes such as NOWPAP and the UNEP/GEF Projects. At national level, the Chinese legislation entitled Regulations on the Prevention of Pollution Damage to the Marine Environment by Land-based Pollutants is the basic instrument to follow the GPA. In the light of the requirements of GPA and RPA (Regional Programme of Action), the Chinese Government has developed China's National Programme of Action (NPA) for the Protection of Marine Environment from Land-based Activities in order to guide and promote marine environmental protection across the country. As basic references for the China NPA, the Chinese Government approved "Clean Sea Programme of Action of the Bohai Sea" in 2000 focusing on the control of land-based pollution. The clean sea programmes of action for major sea waters like the estuaries of the Yangtze River and Pearl River have also been developed. In addition, hosting the IGR-2 of the GPA provided China with a good opportunity for corresponding legislation promotion. Currently, China is in the process of revising its Regulations on Land-based Pollutants.

Japan enacted several laws and administrative plans to address environmental issues. These laws include the Water Pollution Control Law (1970), and the Law Concerning the Examination and Regulation of Manufacture, *etc.* The Basic Environmental Law was promulgated in 1993. This law sets forth three fundamental principles for environmental protection. The three principles are: Enjoyment and Future Success of Environmental Blessings; Creation of A Society Ensuring Sustainable Development with Reduced Environmental Load; and Active Promotion of Global Environmental Conservation through International Cooperation. The Basic

Environmental Law also clarifies the responsibilities of the national and local governments, corporations, and individuals for conserving the environment. Shortly after the adoption of this law, a Basic Environmental Plan was developed by the Japanese government to make part of the framework of environmental administration.

Korea has also developed and implemented policies and actions to prevent the marine pollution from land-based activities since the mid-1990s through collaboration with relevant ministries and agencies. In 1995, the Korean government initiated the National Clean Water Action Plan to improve coastal water qualities and protect coastal environments from land-based activities.

The Russian legislations in general have corresponded to the international conventions and treaties. Since the 2004 – 2005 administrative reforms, the governmental institutions have required all the authorities to control environmental pollution in near-shore waters. The Water Code of Russian Law adopted in 2006 provides for the inspection and detention of the vessels (including foreign vessels) that caused pollution by oil, noxious substances, sewage or litter or failed to prevent pollution.

Other sources of pollution, e.g. coastal construction projects, vessel dismantling, and exploitation of offshore oil and gas also contributed to marine pollution, thus it has also been controlled in the NOWPAP member states. In China, three separate laws have been adopted to regulate activities that have the potential to damage marine environment. These laws are the Regulations on the Environment Protection from the Vessel Dismantling (1988); Regulations on Prevention of the Marine Environmental Pollution by the Coast Construction Projects (1990); and Regulations on the Environmental Protection in the Exploration and Exploitation of Offshore Petroleum (1983). Similar rules are set in Russia regarding the pollution control from the aforementioned activities by the Compulsory Regulations on Sea Ports. All Russian-flag and foreign-flag vessels call in ports and mini-ports of registry waters have to observe the pollution control requirements of Russia, regardless of their affiliation and ownership.

4.5. FAO Code of Conduct for Responsible Fisheries

FAO Code of Conduct for Responsible Fisheries (the Code of Conduct) was adopted by the FAO in 1995 as a globally applicable, non-binding instrument for responsible fisheries. The elaboration of this voluntary code takes a holistic approach to promoting responsibility in fisheries by urging structural change in the fisheries sector. The Code encompasses all aspects of fisheries management within its 12 articles and 2 annexes. It provides a range of principles and standards for responsible fisheries to ensure the effective conservation, management, and development of fisheries resources.

Human activities are affecting marine ecosystems more than ever before and there seems to be no slowing in the rate of destruction. It is observed that human impacts on the marine ecosystem and fishing include: land based sources of pollution; off shore and marine-based pollution; habitat destruction; and sand mining and dredging. The most widespread threat of land-based pollutants to marine and coastal habitats is posed by a combination of municipal sewage, solid waste, fertilizers, urban run-off and other nitrogenous compounds.

As far as marine litter is concerned, persistent plastics and other persistent synthetic materials interfere materially with fishing, navigation or other legitimate uses of the sea. In recent years, the impact of marine litter on fishing activities is recognized, as the plastics and sewage related debris may interfere with fishing gear leading to economic loss (cleaning static nets, etc). On the other hand, snagged or lost gear and torn fragments of net may continue to catch fish indefinitely. This is called ghost fishing which is a serious environmental problem that occurs world wide. The Code sets forth objectives to promote responsible fisheries and to protect the marine environment the same time.

In the NOWPAP region, marine litter related to fisheries has attracted the attention of the member states. For example, Japanese Fisheries Agency takes actions to stimulate efficient ways of recovery and transport of fishing gears to promote recycling activities of Styrofoam fishing gears in fish farms. Korea has also developed similar programmes to deal with this issue. Although no individual regulation is available covering waste fishing facilities as an important source for marine litter in China, it is clearly regulated in the Regulations on Control over Dumping of Wastes to the Ocean in its Article 11 and Annex I. Russia integrates the control of fishery-related marine litter into general national regulations for marine environment, such as the RF Fishery Fleet Instructions on Preventing Pollution from Ships.

5. Conclusions and Suggestions

The marine litter issues have been of increasing concern in the Northwest Pacific region, in particular since the initiation of the NOWPAP MALITA project. It is notable that under the NOWPAP framework, all NOWPAP member states show a strong willingness to cooperatively work together to cope with the marine litter problem in the region and also exercise their ownership through hosting and participating in marine litter related workshops and coastal cleanup campaigns. However, there still remain some barriers and gaps between the member states due to different levels of national economy development, different priorities regarding a variety of the environmental issues set by policy makers, inefficient implementation of laws and regulations and lack of public awareness.

All four NOWPAP member states have established domestic legal frameworks and implementing agencies for the protection and management of the marine environment. Overall, their laws and regulations have covered all crucial issues on marine environmental protection. This ensures the prevention of marine pollution from various sources including litter. However, there is no specific policies implemented to address marine litter and its sources, and the word "litter" does not appear as an issue in major laws and regulations. Not much consideration has been given to the treatment/reuse of marine litter. As one factor that affects the marine environment, marine litter and its main sources need to be regulated in relevant national laws.

The NOWPAP member states have ratified international conventions and agreements related to marine environment. Some have been implemented through specific national laws, and some were integrated into general waste management practices. Nevertheless, there are problems hindering the effective protection of the marine environment from pollution. Russia has found that without a clearly defined regulatory background for the prevention of pollution from land-based sources and for the port waters cleaning, it results in unavailability of sufficient

financial backing of implementing activities. Korea proposed that appropriate measures are required to further implement international conventions and agreements.

The capacities of the four NOWPAP member states vary across and within countries, and have resulted in their different approaches toward marine environmental protection and varied outcomes of pollution control. In Korea and Japan, the establishment of many volunteer-based survey and clean-up schemes has indicated the improved public awareness on the protection of the marine environment. However, challenges remain in many areas in these countries to protect better their marine environment, and more active and coordinated measures among them are necessary to promote regional cooperation. In this respect, Japan suggests an ultimate solution to address the pollutant sources of the region by all the member states and to strive for more efficient communication in the development and circulation of documents among these states. Russia considers a series of exhibitions and conferences focusing on the prevention of marine pollution is the best way to exchange experiences.

It is obvious that the NOWPAP member states still face many of the marine environmental challenges, and marine litter will be taken up more in the four states as part of environmental protection policies in the future. An integrated approach needs to be adopted to reduce the problems created by fragmentation of competing regulatory authorities. Further considerations on some specific issues could start from tackling the root causes of environmental problems including marine litter issues. A specific legislation on marine litter and an appropriate coordinating mechanism is necessary to fulfill the aim of reducing the input and impact of litter. With concerted efforts, a better solution will be worked out to control marine litter of this region.

Annexes: National Summaries on Marine Litter

Annex I: National Summary of the People's Republic of China on Marine Litter

Annex II: National Summary of Japan on Marine Litter

Annex III: National Summary of the Republic of Korea on Marine Litter

Annex IV: National Summary of the Russian Federation on Marine Litter

National Summary of China on Marine Litter

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Abstract

Through collecting and summarizing the data and information on constitutional provisions, framework laws, institutional legislation/cross-cutting legislation related to marine litter in China, a national summary on marine litter related national legal instruments and institutional arrangements is provided. Comments on these instruments and arrangements from the view of marine litter and an analysis of gaps and needs in the coverage of marine litter issue by national instruments are subsequently made.

1. List of national laws, regulations, and institutional legislation related to the marine litter

In the People's Republic of China (hereinafter referred to China), there are more than 30 laws and regulations related to the marine environment and environmental protection. Among which, 13 laws, regulations, and institutional legislation that are obviously related to the marine litter issue. These are listed in Table 1.

Table 1. List of national laws, regulations, and institutional legislation related to the marine litter in China

No	Name	Legal Status	Issued/Effect date	Approved by
1	Constitution of the People's Republic of China	Constitution	Amended on Mar.14, 2004 (fourth time)	National People's Congress
2	Environmental Protection Law of the People's Republic of China	Law	Dec. 26, 1989	National People's Congress
3	Marine Environmental Protection Law of the People's Republic of China	Law	Revised on Dec. 25, 1999	National People's Congress
4	Proposals on Strengthening the Management of the Plastic Package Wastes along Main Roads, in River Basins and at Tourist Attractions	Administrative Statutes	Approved on Sep. 22, 1998	State Council
5	Regulations on the Prevention of Pollution Damage to the Marine Environment by Land-based Pollutants	Administrative Statutes	Effective on Aug. 1, 1990	State Council
6	Regulations of the People's Republic of China on Prevention of the Marine Environmental Pollution by the Coast Construction Project	Administrative Statutes	Jun. 25, 1990	State Council
7	Regulations of the People's Republic of China on the Environment Protection from the Ship Breaking	Administrative Statutes	May 18, 1988	State Council

No	Name	Legal Status	Issued/Effect date	Approved by
8	Regulations on Control over Dumping of Wastes in the Ocean	Administrative Statutes	Mar. 6, 1985	State Council
9	Regulations on the Administration of Environmental Protection in the Exploration and Development of Offshore Petroleum	Administrative Statutes	Dec. 29, 1983	State Council
10	Regulations on the Prevention of Vessel-induced Sea Pollution	Administrative Statutes	Dec. 29, 1983	State Council
11	Measures on the Administration of Function Zone of Near Shore Water Areas	Institutional Legislation	Dec. 10, 1999	SEPA
12	Measures on the Prevention of Ship Garbage and Riverine Solid Waste Pollution in Yangtze River	Institutional Legislation	Mar. 1, 1998	SEPA
13	Emission standards for pollutants from shipbuilding industry	National Standard GB 4286-84	Mar. 1, 1985	SEPA

In the Law on Prevention of Environmental Pollution Caused by Solid Waste and Law on Prevention and control of Water pollution, there are clear descriptions both in Article 2 that “This Law is not applicable to the prevention and control of the marine pollution, which is provided in a separate law” and “It does not apply to the prevention of the marine environmental pollution caused by solid waste...”. Ss such, these two laws are not treated as “obviously related” ones.

2. Detailed Articles related to the marine litter

2.1 Constitution Provisions

Article 9: The state ensures the rational use of natural resources and protects rare animals and plants. Appropriation or damaging natural resources by any organization or individual by whatever means is prohibited.

Article 26: The state protects and improves the living environment of the people and the ecological environment. It prevents and controls pollution and other public hazards.

2.2 Framework laws

2.2.1. Environmental Protection Law of the People's Republic of China

Article 7: The competent department of environmental protection administration under the State Council shall conduct unified supervision and management of the environmental protection work throughout the country.

The competent department of environmental protection administration of the local people's governments at or above the county level shall conduct unified supervision and management of the environmental protection work within areas under their jurisdiction.

The state administrative department of marine affairs, the harbor superintendency administration, the fisheries administration and fishing harbor superintendency agencies, the environmental protection department of the armed forces and the administrative departments of public security, transportation, railways and civil aviation at various levels shall, in accordance with the provisions of relevant laws, conduct supervision and management of the protection of natural resources.

Article 21: The state Council and the people's governments at various levels in coastal areas shall provide better protection for the marine environment. The discharge of pollutants and dumping of wastes into the seas, the construction of coastal projects, and the exploration and exploitation of offshore oil must be conducted in compliance with legal provisions so as to guard against the pollution and damage of the marine environment.

Article 46: If a international treaty regarding environmental protection concluded or acceded to by the People's Republic of China contains provisions differing from those contained in the laws of the People's Republic of China, the provisions of the international treaty shall apply, unless the provisions are ones on which the People's Republic of China has announced reservations.

2.2.2 Marine Environmental Protection Law

Article 2: This law shall apply to the internal waters, territorial seas and the contiguous zones, exclusive economic zones and continental shelves of the People's Republic of China and all other sea areas under the jurisdiction of the People's Republic of China.

This law shall also apply to areas beyond the sea areas under the jurisdiction of the People's Republic of China that cause pollution to the sea areas under the jurisdiction of the People's Republic of China.

Article 5: The competent administrative department in charge of environment protection under the State Council, as a department to exercise unified supervision and administration over nation-wide marine environment protection work, shall render guidance, co-ordination and supervision and be responsible for nation-wide environment protection work to prevent and control marine pollution damages caused by land-based pollutants and coastal construction projects.

The competent State Oceanic administrative department in charge of marine affairs shall be responsible for the supervision and administration of the marine environment, organize survey, surveillance, supervision, assessment and scientific research of the marine environment and be responsible for nation-wide environment protection work to prevent and control marine pollution damages caused by marine construction projects and dumping of wastes in the sea.

The competent State administrative department in charge of maritime affairs shall be responsible for the supervision and administration of marine environment pollution caused by non-military vessels inside the port waters and non-fishery vessels and non-military vessels outside the port waters under their jurisdiction, and responsible for the investigation and handling of the pollution accidents. In the event of a pollution caused by a foreign vessel navigating, berthing and anchoring and operating in the sea area under the jurisdiction of the People's Republic of China, officers in charge shall board the vessel in question to examine and handle the case. Should a pollution accident caused by vessels result in fishery damages, the competent administrative department in charge of fisheries shall be invited to take part in the investigation and handling of the accident.

The competent State administrative department in charge of fisheries shall be responsible for the supervision and administration of marine environment pollution used by non-military vessels inside the fishing port waters and the fishing vessels outside the fishing port waters, and be responsible for the protection of ecological environment in the fishing zones and examine and handle fishery pollution cases beyond the pollution accidents mentioned in the previous clause.

The environmental protection department of the Armed Forces shall be responsible for the supervision and administration of marine pollution caused by military vessels and for the investigation and handling of the pollution cases.

The functions and responsibilities of the departments invested by the law with power to conduct marine environment supervision and administration of the coastal local People's Governments above the county level shall be determined by the People's Governments of the Provinces, Autonomous Regions and Municipalities directly under the Central Government in accordance with this law and relevant regulations of the State Council.

Article 11: Those dumping wastes in the sea shall, in accordance with the State regulations, pay dumping fees.

Article 14: The competent State administrative department in charge of marine affairs shall, in accordance with State environmental monitoring and supervisory norms and standards, administer the investigation, monitoring and supervision of nation-wide marine environment, work out specific measures of implementation, organize nation-wide marine environment monitoring and supervision network in conjunction with relevant departments, handle assessment of marine environment quality at regular intervals and release sea cruise supervision dispatches.

Other relevant department shall, in accordance with the division of work of nation-wide marine environment monitoring network, be respectively responsible for the mouths of rivers that empty into the sea and main pollutant discharge outlets.

Article 28: Mariculture shall determine breeding density in a scientific way, rationally feeding and apply manure and accurately use medicines, so as to prevent pollution to the marine environment.

Article 38: The abandoning, piling up and disposal of mining tailing, waste ores, cinders, garbage and other solid wastes along shore and beach shall be conducted in accordance with relevant provisions of the “Law of the People’s Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes”.

Article 55: No unit is permitted, without approval of the competent State administrative department in charge of marine affairs, to dump any wastes into the sea areas under the jurisdiction of the People’s Republic of China.

Units that need to dump wastes in the sea must submit a written application to the competent State administrative department in charge of marine affairs for its examination and approval and shall not proceed the dumping before a permit is granted by the same department.

Wastes from outside the boundaries of the People’s Republic of China are prohibited to dump into the sea areas under the jurisdiction of People’s Republic of China.

Article 62: No vessels and their related operations shall, in the sea areas under the jurisdiction of the People’s Republic of China, discharge pollutants, wastes, ballast water, vessel garbage and other harmful substances into the sea in violation of the provisions of this law.

Those engaged in the business of collection of the pollutants. Wastes and garbage from vessels and the operation of vessel cabin cleaning and washing must possess corresponding capabilities of pollutant collection and treatment.

Article 69: Ports, docks, loading and unloading spots and shipyards must, in accordance with relevant regulations, be equipped with proper facilities to accommodate and deal with vessel-induced pollutants and wastes, and shall keep these facilities in good conditions.

Ports, docks, loading and unloading spots and shipyards must draw up contingency plans to deal with oil spill pollution and shall be equipped with corresponding contingency equipment and devices to deal with oil spill.

Article 73: Whoever, in violation of the provisions of this law, commits any of the following acts, shall be ordered to remedy within a certain period of time and be fined by the competent department invested by law with power to conduct marine environment supervision and administration with the provisions of this law:

(3) dumping wastes in the sea without obtaining certificate of permit for dumping;

...Whoever commits any of the following acts mentioned in previous clause ...and (3), shall be fined not less than 30,000 Yuan but no more than 200,000 Yuan; ...

Article 88: Those who, in violation of the provisions of this law, commits any of the following acts, shall be warned or fined by the department invested with power to conduct marine environment supervision and administration in accordance with the provisions of this law:

(1) Ports, docks, loading and unloading spots and vessels which are not equipped with pollution prevention facilities and devices;

(2) Vessels no in possession of pollution prevention certificate and pollution prevention document, or do not take records of pollutant discharge in accordance with relevant provisions.

(3) Engaged in surface and port water area ship dismantling, old vessel refitting, salvaging and other surface and underwater operations which cause pollution damage to the marine environment;....

Those who commits any of the following acts mentioned in previous clause (1)..., shall be fined not less than 20,000 Yuan and not more than 100,000 Yuan; act mentioned in previous clause (2) shall be fined no more than 20,000 Yuan; and act mentioned in previous clause (3) shall be fined not less than 50,000 Yuan and not more than 200,000 Yuan.

Article 95: For the purpose of this law, the definitions of the following terms are:

(1) "pollution damage to the marine environment" means any direct or indirect introduction of substances or energy into the marine environment which results in deleterious effects such as harm to marine living resources, hazards to human health, hindrance to fishing and other legitimate operations at sea, impairment of the useful quality of sea water and degradation of environment quality.....

2.3 Regulations and institutional legislation

2.3.1 Regulations on the Prevention of Pollution Damage to the Marine Environment by Land-based Pollutants

Article 11: It is prohibited to pile up, discard, or dispose of solid wastes along seashores and beaches without approval. If it is really necessary to pile up or dispose of solid wastes for the time being, a written application shall be submitted according to examining and approving procedures stipulated by the environmental protection departments of the coastal provinces, autonomous regions, and municipalities directly under the central government. The application shall mainly include the following contents: the name and address of the applicant;

Article 12: Any organization or individual who has been approved to set up waste yards and treatment facilities shall build dikes and facilities against raising dust and leakage of wastes. Prior to their use, the dikes and facilities shall pass the inspection by the environmental protection department that approved the establishment of the waste yards and treatment facilities.

2.3.2 Regulations on the Administration of Environmental Protection in the Exploration and Development of Offshore Petroleum

Article 12: Requirements of control for other waste materials:

....

(1) The dumping of industrial garbage in large quantities is to be managed in accordance with the stipulations of marine dumping of waste materials; fragmentary industrial garbage may not be discarded into the fishery waters and sea-lanes;

(2) Domestic garbage that needs to be discharged within 12 nautical miles from the nearest land shall undergo pulverization treatment with the granules less than 25 millimeters in diameter.

2.3.3 Regulations on the prevention of Vessel-induced Sea Pollution

Article 27: Garbage from vessels shall not be dumped at will into harbor waters. Vessels carrying toxic or dusty bulk goods may not wash the decks and cabins at will in the harbors, or discharge the residue materials in the harbors in any other ways. If washing is really necessary, applications must be submitted to the harbor superintendence in advance for approval.

Article 28: Any vessel in the harbor that needs to dump garbage shall rise on board signals as designated by the harbor, and hire garbage boats/trucks to dispose of it. At the same time the following requirement must be met:

(1) the containers for storing and collecting domestic garbage of the vessel must have covers and may not leak, and dumping must be done at regular intervals;

(2) cabin paddings, materials used for sweeping the cabin and various types of solid garbage shall be dumped by the shipping service departments; the vessel shall apply to these departments in advance and provide the information about the types and amounts of the materials to be dumped;

Article 30: Vessels disposing of garbage at sea shall conform to the following stipulations:

(1) Plastic products may not be cast off into the sea;

(2) Granulated domestic garbage and kitchen wastes of less than 25mm in diameter may, after pulverization treatment, be cast off beyond 3 nautical miles from the nearest land; those which have not been thus treated shall be cast of beyond 12 nautical miles from the nearest land.

Article 31: Any unit that needs to use vessels to dump waste materials shall submit the document of approval by the State Oceanography Bureau or by its agency to the harbor superintendency of the harbor where shipment starts, and may go through the visa procedures for the vessels to make their entry and exit only after verification. If the actual cargoes are found to be not in conformity with the contents approved, the visa application shall be rejected.

Article 36: In surface ship scrapping, the scraps may not be cast off into the sea....

Article 47: The maximum amount of a fine on a ship-owner is 100,000 Yuan....

2.3.4 Regulations on Control over Dumping of Wastes in the Ocean

Article 4: The competent departments responsible for matters concerning the dumping of wastes are the National Oceanographic Bureau and its agencies.

Article 11: Wastes fall into three categories in the light of their toxicity, content of harmful elements and the impact upon the marine environment. The criteria used for categorization shall be worked out as annex by the competent department and subject to amendment in the light of changes in ecological environment, the development in science and technology and the need in protecting the marine environment.

(1)The dumping of wastes and other substances as listed in Annex I is prohibited. In times of emergency, when wastes cannot be disposed of on land because of its impact upon human health, emergency permits shall be issued with the approval of the National Oceanographic Bureau to dump wastes in prescribed ways and designated areas.

(2) The dumping of wastes as listed in Annex II shall require special permits in advance.

(3) The dumping of wastes of low or no toxicity other than those listed in Annex I and Annex II shall require ordinary permits in advance.

Annex I 4: Fishing net, ropes, plastic products and other artificial synthesis which can float on the surface or suspend in the water, and thus seriously interfere with navigation, fishing and other activities, or endanger the ocean life.

Annex II 3: Containers, waste metals and other heavy waste materials that will easily sink to the bottom of the sea and might seriously hinder fishing or navigation.

2.3.5 Proposals on Strengthening the Management of the Plastic Package Wastes along Main Roads, in River Basins and at Tourist Attractions (please consider rearranging this according to the order listed in Table 1 or vice versa)

....

2. It is prohibited to use non-degradable one-off vesicant plastic tableware at railway stations, abroad passenger trains, and abroad passenger ships and excursion ships sailing in inland waters such as the Yangtze River, the Thai Lake, etc.

3. It is prohibited to litter or deposit plastic package wastes or other solid wastes into rivers, lakes and or on their banks. In the Yangtze River, the Thai Lake, the major tourist attractions and other inland waters, the local people's governments shall, within three months, organize the cleaning of the plastic package wastes floating in the water or deposited on the banks.

5. The departments of communications at different levels shall strengthen the management of ship rubbish. All ships shall be equipped with the Ship Rubbish Register, the Ship Rubbish

Management Plan, the bulletin boards and enough containers to store rubbish as required by relevant laws and regulations....

2.3.6 Other regulations and institutional legislation

2.3.6.1 Regulations of the People's Republic of China on the Environment Protection from the Ship breaking

Article 14 and 16 regulate that disassembly of ship should not discarded to the sea or other waters and pollutants should be cleaned up when changing sites and article 17 settled the penalty methods.

Article 20 of the Regulations of the People's Republic of China on Prevention of the Marine Environmental Pollution by the Coast Construction Project set requirements for the coastal landfill sites.

2.3.6.2 Measures on the Prevention of Ship Garbage and Riverine Solid Waste Pollution in Yangtze River

There are more than fifteen articles related to ship garbage and riverine solid waste management including ship waste management notification, ship waste recording and inspection, prohibition of waste discharge and incineration, prohibition of riverine waste pile up, riverine domestic, industry and construction waste treatment, waste reception facilities and cooperation and coordination of different local administrative departments.

In the "Effluent standard for pollutants from ship", plastic, drifted material and domestic waste are regulated differently and the respect requirement is alike to the Regulations on the prevention of Vessel-induced Sea Pollution.

Many laws of pollution prevention by solid waste promulgated ensure the solid waste has been treated, utilized and managed according to relevant standards, which minimizes the impact of solid waste on the environment and the public.

3.The compliance of national legal instruments with related international conventions and agreements

3.1 London Convention

The Regulations on Control over Dumping of Wastes in the Ocean was founded on the basis of London Convention. Same as the requirement in the Convention, in the Regulation waste matters fall into three categories in the light of their toxicity, content of harmful elements and the impact upon the marine environment, with the dumping of different categories prohibited, special permitted and ordinary permitted respectively.

3.2 MARPOL Convention

According to the Marine Environmental Protection Law of the People's Republic of China, which came into effect in April 1, 2000, discharging of garbage from ships into the water is strictly prohibited. The ports and terminals must establish adequate garbage reception facilities

to satisfy the requirement of the ships without causing undue delay to ships. Illegal and deliberate discharge garbage from ships would be severely punished by the maritime authorities.

China is the party of MARPOL Convention. The government of Peoples Republic of China accepted the MARPOL Annex V on November 21, 1988. According to the national law, MARPOL Annex V applies to the domestic coastal and international shipping. China also accepted the amendments of Annex V concerned in the recent few years, such as Amendment 1995.

Following the Annex V, every ship of 12 m or more in length overall shall display placards which notify the crew and passengers of the disposal requirements. Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 persons or more, shall carry a garbage management plan which the crew shall follow. Every ship of 400 tons gross tonnage and above and every ship which is certified to carry 15 persons or more engaged in voyages to ports or offshore terminals shall be provided with a Garbage Record Book.

The Regulations on the prevention of Vessel-induced Sea Pollution is directly in compliance with the MARPOL convention in China.

3.3 Basel Convention

Basel Convention is focused on Trans-boundary movement of hazardous wastes and their disposal. In China, corresponding legal documents include Law on Prevention of Environmental Pollution Caused by Solid Waste and its Infrastructure, Measures on the Management of Duplicated Form for Transfer of Hazardous Wastes, National Catalogue of Hazardous Wastes and Interim Provisions on Administration of Environmental Protection on Import of Waste. However, these instruments are not listed in the Table-1 of this National Summary.

3.4 Global Programme of Action

China has taken part in UNEP's Global Programme of Action for the Protection of the Marine Environment from Land-based Activities. The Regulations on the Prevention of Pollution Damage to the Marine Environment by Land-based Pollutants is the basic instrument to follow the GPA and China has considered revising the 1990's Regulation according to the information provided by SEPA. The 2nd Intergovernmental Review (IGR-2) of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) will be held in October this year in Beijing, which is a good opportunity for corresponding legislation promotion.

4. Analysis and suggestion

4.1 Advantages

4.1.1 Main marine litter sources are well covered through the regulations

The four regulations on Land-based Pollutants, Exploration and Development of Offshore Petroleum, Vessel-induced Sea Pollution, and Dumping of Wastes, respectively, cover the main sources for marine litter to a high extent including both the land-based source and sea-based source. Though no individual regulation is available covering waste fishing facilities as an important source for marine litter, it is clearly regulated in the Regulations on Control over Dumping of Wastes in the Ocean in its Article 11 and Annex I.

4.1.2 Each corresponding administrative department has a distinct authority and responsibility on marine environmental protection

In the Marine Environmental Protection Law's Article 5, the roles in protecting marine environment for the competent administrative department in charge of environmental protection, marine affairs, maritime affairs, and fisheries are clearly settled. Concerning the marine litter, it can be said that competent administrative department in charge of environmental protection cares for the land-based marine litter, maritime affairs and fisheries authority together care for ship-based marine litter sharing a respective part, and marine affairs authority for other sea-based marine litter except the ship-based one.

4.1.3 Marine litter is included, even not by a direct manner, in the law

In the Article 95 of the Marine Environmental Protection Law, the definition of "pollution damage to the marine environment" is given as "means any direct or indirect introduction of substances or energy into the marine environment which results in deleterious effects such as harm to marine living resources, hazards to human health, hindrance to fishing and other legitimate operations at sea, impairment of the useful quality of sea water and degradation of environment quality.....". In my opinion, marine litter has accordance with the descriptions like "substances", "harm to marine living resources", "hindrance to fishing" and "degradation of environment quality".

4.1.4 Existing several clauses highly related to marine litter

There are some rules that have high relationship with marine litter indeed. For example, Regulations on the Administration of Environmental Protection in the Exploration and Development of Offshore Petroleum's Article 12 require control for dumping of industrial garbage, and require that domestic garbage within 12 nautical miles from the nearest land shall undergo pulverization treatment with less than 25 millimeters. In the Regulations on the prevention of Vessel-induced Sea Pollution's Article 30, plastic products are forbidden to be cast off into the sea, and domestic garbage less than 25mm may, after pulverization treatment, be cast off beyond 3 nautical miles from the nearest land; those not been treated shall beyond

12 nautical miles. In Article 11 of the Regulations on Control over Dumping of Wastes in the Ocean, wastes fall into three categories and that listed in Annex I is prohibited to dump, and fishing net, ropes, plastic products and other artificial synthesis which can float on the surface or suspend in the water are listed in Annex I.

4.1.5 Management of the Plastic Package Wastes are emphasized by the State Council

The Proposals on Strengthening the Management of the Plastic Package Wastes along Main Roads, in River Basins and at Tourist Attractions were approved by the State council specially dealing with the plastic package pollution. In its second, third and fifth proposal, non-degradable one-off vesicant plastic is restricted, plastic package wastes are prohibited to litter or deposit into rivers, lakes and or on their banks (which may be an important source for marine litter) and ship rubbish management is strengthened.

4.2 Disadvantages

4.2.1 Long revision period

Though the Marine Environmental Protection Law was revised in 1999, the four regulations were not ever revised since 1990, and three of them all have a history over twenty years. As the situation of marine environmental protection has changed a lot, some requirements gradually lose its time characteristic. For example, the punishments involved in the four regulations are not enough from nowadays' point of view, which limit the fine to 100,000 yuan (about 12,500\$).

4.2.2 The word "Litter" never appears

Though as the 3.1.4 part above mentioned, there are some requirements set by laws and regulations that have high relationship with marine litter, the word "marine litter" or "litter" is not included in any article of corresponding laws and regulations. Wastes with no obvious toxic effect but only sensuous or physical effect, like marine litter, may still not be the most important care and not be weightily regulated.

4.3 Suggestion

In china, legislation for an individual Marine Litter prevention regulation should be possible. The "Measures on the Prevention of Ship Garbage and Riverine Solid Waste Pollution in Yangtze River" is a very good example for Marine Litter prevention regulation, with most of the contents could be referred and with only the applied area changed to sea areas but not Yangtze River.

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National Summary of Japan on Marine Litter

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1. Legal Aspects

1.1 The List of National Laws, Regulations, Institutional and Sectoral Legislation related to the Marine Litter Issue

- Waste Management and Public Cleansing Law
- Cabinet Order of Waste Management and Public Law
- Law Related to the Prevention of Marine Pollution and Maritime Disaster
- The Seacoast Law
- Port and Harbor Law
- Establishment Law of the Ministry of Land, Infrastructure and Transport

1.2 The brief summary of articles related to the marine litter issue

1.2.1 Waste Management and Public Cleansing Law

The date entered into force: Dec. 25, 1970; Final revision on Jun 2, 2006.

Summary of the laws

The process of waste treatment is generally divided into collection, transport, intermediate treatment (such as incineration, comminution and reuse), and final disposal (landfill and disposal into the sea). "Waste Disposal and Public Cleansing Law" states the main body of waste treatment responsibility explicitly in accordance with the classification of municipal solid waste and industrial waste, and it also regulates standards on waste treatment and its commission in order to maintain proper waste treatment. The law has certain requisites for the person who collects and transports waste and it also shows standards on the structure and maintenance and management of a waste treatment facility.

Brief Summary of Each Article

1. Maintaining Cleanliness

Land owners or caretakers, such as those who maintain ports and harbors, should endeavor to maintain cleanliness of the land.

2. Regulations according to the ocean dumping of wastes

Ocean dumping of limited types of wastes may be allowed. The dumping, however, should be avoided when landfill disposal of such waste is judged to be practicable without trouble.

3. Prohibition of Dumping

Unnecessarily dumping is prohibited by this article.

Article 5 (Maintaining Cleanliness)

Land or buildings owners (or caretakers in the absence of such owners; and the same will apply hereinafter) should endeavor to maintain cleanliness of the land or buildings in their possession or under their care.

2~3

4 The caretakers of the aforementioned places should exert themselves to keep the places clean.

5~6

Article 6-2 (Management by Municipalities)

1.

2. Standards on collection, transport and disposal of municipal solid waste (excluding specially controlled municipal solid waste; the same will apply in the rest of Article 6-2) which are to be conducted by the municipalities (excluding the standards pertaining to the place and method of ocean disposal, defined by the Law related to the Prevention of Marine Pollution and Maritime Disaster (Law No. 136 of 1970), for those of municipal solid waste which may be disposed of in a sea and which will be referred to as the "municipal solid waste management standards") and standards for the case in which a municipality commissions someone else to collect, transport and dispose of municipal solid waste should be prescribed in a Cabinet Order.

3. Standards on collection, transport and disposal of specially controlled municipal solid waste which are to be conducted by the municipalities (excluding the standards pertaining to the place and method of ocean disposal, defined by the Law Relating to the Prevention of Marine Pollution and Maritime Disaster, for those of specially controlled municipal solid waste which may be disposed of in a sea and which will be referred to as the "specially controlled municipal solid waste disposal standards") and standards for the case in which a municipality

commissions someone else collect, transport and dispose of specially controlled municipal solid waste should be prescribed in a Cabinet Order.

4~7

Article 12 (Management by Businesses)

In a case where a business transports or disposes of their industrial waste (excluding specially controlled industrial waste; the same will apply in the rest of this Article except for Paragraph 3 to 5) by themselves, it should be in accordance with the standards on the collection, transport and disposal of industrial waste specified in the Cabinet Order. In a case where a business transports or disposes of their industrial waste (excluding specially controlled industrial waste; the same will apply in the rest this Article) by themselves, it should be in accordance with the standards on the collection, transport and disposal of industrial waste specified in the Cabinet Order (excluding standards on the place and method of ocean dumping, if such standards are specified in the Law Related to Prevention of Marine Pollution and Maritime Disaster, in respect of industrial waste which may be disposed of in the sea, if such industrial waste is specified in the above-mentioned standards specified in the Cabinet Order). (The above-mentioned standards specified in the Cabinet Order will hereinafter be referred to as "industrial waste management standards").

2~11

Article 12-2 (Management of Specially Controlled Industrial Waste by Businesses)

When businesses are to transport or dispose of their specially controlled industrial waste by themselves, it should be in accordance with the standards on the collection, transport and disposal of specially controlled industrial waste specified in the Cabinet Order (excluding standards on the place and method of ocean dumping, if such standards are specified in the Law Related to Prevention of Marine Pollution and Maritime Disaster, in respect of specially controlled industrial waste which may be disposed of in a sea, if such specially controlled industrial waste is specified in the above-mentioned standards specified in the Cabinet Order). (The above-mentioned standards specified in the Cabinet Order will hereinafter be referred to as "specially controlled industrial waste management standards".)

2~12

Article 16 (Prohibition of Dumping)

No person should unnecessarily dump waste.

1.2.2 Cabinet Order of Waste Management and Public Cleansing Law

The date of being entered into force (Sep. 24, 1971; Final revision on Mar. 31, 2006)

Summary of the Cabinet Order

This Cabinet Order sets standards for waste management.(under Waste Management

and Public Cleansing Law)

Article 3 (Standards on Collection, Transport and Disposal of Municipal Solid Waste)

The standards on the collection, transport and disposal (including recycling) of municipal solid waste (excluding specially controlled municipal solid waste, and the same will apply in the rest of this article and the next article) in accordance with the provisions of Paragraph 2 of Article 6-2 of the Law are as follows:

1) The collection and transport of municipal solid waste should be carried out by using precautions on the following points:

a. The following actions must be performed in respect of the transport and collection:

(1) Prevention of the scatter or flow-out of the municipal solid waste;

(2) Action necessary for prevention of hindrance to conservation of the living environment due to bad odors, and noise vibration;

b. The construction of a facility for collection and transport of the municipal solid waste should be carried out in a manner not hindering conservation of living environment.

c.~h.

2)~3)

4) The ocean dumping of municipal solid waste should be conducted in accordance with the following regulations:

a. The ocean dumping of municipal solid waste may be allowed only when the following municipal solid waste is dumped from a ship:

(1) Waste explosives (explosives specified in Paragraph 1 of Article 2 of the Explosives Control Law (Law No.149 of 1950), which are wastes, and the same will apply hereinafter).

(2) Non-combustible municipal solid wastes (excluding those listed below):

(a) Sludge related to septic tanks

(b) Night soil

(c) Waste pesticides (defined as those among chemicals used for eliminating animals, plants and viruses and the chemical substances manufactured or imported as the effective ingredients thereof which are designated by the Minister of the Environment and which are unnecessary (excluding those occurring in the course of daily life and those treated by the method prescribed by the Minister of the Environment), and the same will apply hereinafter)

(d) Those which are liable to have a major adverse effect on the health of human beings and which have been designated by the Minister of the Environment.

(3) Among the municipal solid wastes mentioned in (d) of (2) those which have been designated by the Minister of the Environment on the basis of the judgment that disposal is

urgently needed and that no appropriate method of disposal other than ocean dumping is available and which have been treated in accordance with what has been specified by the Minister of the Environment.

b. The regulations in a. and b. of Item 1) should be observed at the time of ocean dumping of municipal solid waste.

5) Even in the case of municipal solid waste specified in a. of the preceding Item (excluding (3)), when landfill disposal of such waste is judged to be practicable without trouble, ocean dumping should be avoided.

Article 4-2 (Standards on Collection, Transport and Disposal of Specially Controlled Municipal Solid Waste)

The standards on the collection, transport and disposal (including recycling) of specially controlled municipal solid waste in accordance with the provisions of Paragraph 3 of Article 6-2 of the Law are as follows:

1)~3)

4) Ocean dumping of specially controlled municipal solid waste should not be performed.

Article 6 (Standards on Collection, Transport and Disposal of Industrial Waste)

The standards on the collection, transport and disposal (including recycling) of industrial waste (only those excluding specially controlled industrial waste, to the exclusion of the waste specified in Item 2 of Paragraph 4 of Article 2 of the Law or the said waste treated for disposal, the same will apply in the rest of this paragraph (except for a. of Item 3) and a. of Item 4)) in accordance with Paragraph 1 of Article 12 of the Law are as follows:

1)~3)

4) Ocean dumping of industrial waste is subject to the following regulations:

a. Ocean dumping of industrial waste is allowed only when the following industrial wastes (only which are generated within Japan and excluding specially controlled industrial waste) are dumped from a ship:

(1) Sludge mentioned below (only that meeting the standards prescribed by the Ordinance of the Ministry of the Environment in case of the sludge containing oil)

(a) Sludge produced at a facility of the description in Annex III-2 (only that meeting the standards prescribed by the Ordinance of the Ministry of the Environment in case of the sludge containing the substance specified in Annex III-3)

(b) Sludge from constructing work (only that meeting the standards prescribed by the Ordinance of the Ministry of the Environment in case of the sludge containing the substance specified in Annex III-3)

(c) Sludge removed from public sewerage or river-basin sewerage (excluding designated sewage)

(2) Waste acid or waste alkali produced at a facility of the description in the Section 1 of Annex III-2 (only that meeting the standards prescribed by the Ordinance of the Ministry of the Environment in case of the said wastes containing oil or the substance specified in AnnexIII-3).whose hydrogen ion exponent has been set somewhere between 5.0 and 9.0 at the time of loading onto a ship.

(3) Animal or vegetable remnants which have been turned into a state meeting the standards prescribed by the Ordinance of the Ministry of the Environment by crushing or by removal of oil.

(4) Livestock excrement from which floating impurities have been removed.

b. Ocean dumping of industrial waste should be conducted in accordance with the provisions of Article 3, 1), a. and b.

5) Ocean dumping of even one of the industrial waste specified in a. of the preceding paragraph a. should be avoided if its landfill disposal can be accomplished without any problem.
2 The standards on the collection, transport and disposal (including recycling) of industrial waste (only those excluding specially controlled industrial wastes, to the exclusion of the waste specified in Paragraph2 of Article 2-4 of the Law or the said waste treated for disposal) which prescribed by Paragraph1 of Article 12 of the Law, should be in accordance with the provision of Article 3. However, the wastes mentioned in Item 2) of Paragraph 4 of Article 2of the Law (excluding specially controlled industrial wastes) should not be disposed by ocean dumping.

Article 6-5 (Standards on Collection, Transport and Disposal of Specially Controlled Industrial Waste)

The standards on the collection, transport and disposal (including recycling) of specially controlled industrial waste (excluding those specified in Item 2) of Paragraph 4 of Article 2 of the Law (to the exclusion of PCB contaminated waste)or those specified in provisions of Item 6) to 8) of Article 2-4) , the same will apply in the rest of this Item)in accordance with Paragraph 1of Article 12-2 of the Law are as follows:

1)~3)

4) Ocean dumping of specially controlled industrial waste should not be allowed.

1.2.3 Law Relating to the Prevention of Marine Pollution and Maritime Disaster

The date of entry into force (Feb. 25, 1970; Final revision Jun. 14, 2006)

Brief Summary of Each Article

1. Prohibition of Discharge of Wastes from a Ship

No person may discharge wastes from a ship in sea areas except under certain conditions.

2. Regulation for Preventing Pollution by Shipboard Wastes and a Shipboard Wastes Record Book.

The master of the ship should have "Regulation for Prevention Pollution by Shipboard Wastes" and "a Shipboard Wastes Record Book" on board the ship.

3. Registration of Wastes Discharge Ships

The owner of a ship intending to employ his ship continually for discharge of wastes should obtain registration of the said ship by the Commandant of the Japan Coast Guard.

4. Prohibition of Discharge of Wastes from Offshore Facilities and Aircrafts

No person may discharge wastes from off shore facilities and aircrafts in sea areas except under certain conditions.

Article 10 (Prohibition of Discharge of Wastes from a Ship)

1. No person may discharge wastes from a ship in sea areas. However, this should not apply to the discharge of wastes that falls under any of the following items:

(1) The discharge of wastes for the purpose of securing the safety of a ship or saving human life;

(2) The discharge of wastes when the wastes have been discharged due to damage to a ship or for other unavoidable reasons and all the possible measures to prevent the continuous discharge of the wastes has been taken.

2. The provision of the principal clause of the preceding Paragraph should not apply to the discharge of wastes which falls under any of the following items:

(1) The discharge of excrement, sewage or other similar wastes (hereafter referred to as "excrement etc.") which arise from the daily life of crewmembers and other persons on board the ship (the discharge of excrement etc. defined by the Cabinet Order from a ship whose complement or gross tonnage is not less than those defined by the Cabinet Order, should be made in accordance with the criteria concerning the sea areas of discharge and the method of discharge as defined by the Cabinet Order).

(2) The discharge of refuse or other similar wastes (excluding wastes provided by the Cabinet Order) which arise from the daily life of crewmembers and other persons on board the ship to be made in accordance with the criteria concerning the sea areas of discharge and the method of discharge as defined by the Cabinet Order.

(3) The discharge to be made in accordance with the criteria concerning the method of discharge as defined by the Cabinet Order to the place which is to be reclaimed upon license under the Paragraph 1 of Article 2 of the Public Waters Reclamation Law (Law No. 57 of 1921) or upon approval under the Paragraph 1 of Article 42 of the same Law or to the place which is to be established as a place for disposal of wastes;

(4) The discharge, to be made in accordance with the criteria concerning the sea areas of discharge and the method of discharge, provided by the Cabinet Order, of wastes which are allowed to be cast into the sea for disposal by the Cabinet Order mentioned in Paragraph 2 or Paragraph 3 of Article 6-2 or Paragraph 1 of Article 12 or paragraph 1 of Article 12-2 of the Waste Disposal and Cleansing Law (Law No. 137 of 1970), mud provided by item (4) of Article 16 of the Law related to the Antarctic Environment Protection Law (Law No. 61 of 1997) and other wastes which are inevitable to be disposed of at sea as defined by the Cabinet Order.

(5) The discharge of wastes loaded in a foreign country which is a Party (hereafter referred to simply as "Party") to the Convention of the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (hereafter referred to as "marine dumping control treaty".) to be made in accordance with the provisions of legislation of the Party (excluding the discharge made in the surrounding sea areas of Japan) provided by the Cabinet Order (hereafter referred to as "the surrounding sea areas of Japan").

(6) The discharge of wastes made for the reclamation in internal waters or territorial waters of foreign countries.

3. In a case where the wastes is discharged under Item (4) of the preceding article, if the wastes are that prescribed by the Cabinet Order as the wastes to the discharge of which it is necessary to pay special attention in view of marine environment protection, a person who intends to discharge the wastes from a ship should obtain confirmation that the plan for the discharge is in accordance with the criteria of the item from the Commandant of the Japan Coast Guard submitting written application of confirmation in advance of loading the ship with the wastes (in advance of discharge when the wastes is produced on board the ship).

4. The Commandant of the Japan Coast Guard should, when he has accepted the written application of the preceding Paragraph and has confirmed that the plan for the discharge complies with the criteria under the item (4) of Paragraph 2, issue to the applicant a certificate of confirmation of discharge.

5. The person who has obtained the certificate of confirmation of discharge should have it on board the ship which is in charge of the discharge of the waste.

6. In addition to those prescribed in the preceding three Paragraphs, necessary matters concerning confirmation such as the application form of discharge, the form of certificate of confirmation of discharge should be provided by the Ministry of LIT Ordinance.

Article 10-3 (Regulation for Prevention Pollution by Shipboard Wastes)

1. The owner of a ship should, for each ship prescribed by the Ministry of LIT Ordinance, make Regulation for Preventing Pollution by Shipboard Wastes as prescribed by the Ministry of LIT Ordinance on the matters to be observed by those who carry out works of shipboard waste (the refuse or other similar waste which arises from the daily life of crewmembers and other persons on board the ship and other waste prescribed by the Cabinet Order; hereafter the same) and other matters for preventing improper discharge of shipboard wastes, and have and display the Regulation on board the ship.

2. The master of the ship should make the matters prescribed in the Regulation for Preventing Pollution by Shipboard Waste known to the crewmembers of the ship and the persons other than the crewmembers who carry out the works of handing shipboard wastes among those who are engaged in the works concerning the ship.

Article 10-4 (Shipboard Waste Record Book)

1. The master of the ship engaging in international voyage (the voyage between one country and another; hereafter the same) prescribed by Ministry of LIT Ordinance should have a Shipboard Wastes Record Book on board the ship.

2. The master of the ship under the preceding paragraph should, every time discharge shipboard waste or other works concerning the handing of shipboard waste prescribed by the Ministry of LIT Ordinance, enter such events in the Shipboard Wastes Record Book prescribed by the Ministry of LIT Ordinance.

3. The masters of a ship should keep on a board the Shipboard Wastes Record Book for two years from the day when the last entry was made.

4. In addition to those prescribed in the preceding three paragraphs, the form of the Shipboard Wastes Record Book and other matters necessary for the Shipboard Wastes Record Book should be prescribed by the Ministry of LIT Ordinance.

Article 10-5 (Display of Matters to be Observed Concerning Discharge of Shipboard Waste and Others)

The owner of a ship prescribed by the Ministry of LIT Ordinance should display within the ship, as prescribed by the Ministry of LIT Ordinance, the matters concerning discharge of shipboard waste to be observed by the crewmembers and other persons on board the ship and other matters for preventing improper discharge of shipboard waste, so that they can easily be seen by the crewmembers and other persons on board the ship.

Article 11 (Registration of Wastes Discharge Ships)

The owner of a ship intending to employ his ship continually for discharge of wastes in accordance with the item (3) or (4) of the Paragraph 2 of Article 10 should obtain registration of the said ship by the Commandant of the Japan Coast Guard.

Article 12

1. The owner of a ship intending to apply for the registration mentioned in the preceding Article should submit to the Commandant of the Japan Coast Guard a written application stating the following items:

- (1) Name and address of the owner of the ship and, in case of a juridical person, name and address of a representative thereof;
- (2) Official number, name, quality, gross tonnage and navigating area of the ship;
- (3) Main loading place of wastes;
- (4) Specifications of wastes;
- (5) Outline of the equipment for loading and discharge of wastes of the ship and other equipment and structure of the ship as provided by the Ministry of LIT Ordinance;
- (6) Other matters provided by the Ministry of LIT Ordinance.

2. The Commandant of the Japan Coast Guard should, when he has accepted the written application mentioned in the preceding Paragraph, register the ship, except when the equipment and structure of the ship fails to comply with the technical standards provided by the Ministry of LIT Ordinance for securing proper discharge of wastes.

Article 13

1. The Commandant of the Japan Coast Guard should, when he has made registration provided by Article 11, notify the applicant by designating the registration number and issue a registration certificate.

2. The owner of a registered ship should keep the registration certificate on board the ship and display clearly the designated registration number outside the hull so as to be easily seen in accordance with the method provided by the Ministry of LIT Ordinance.

Article 14

When there has been any change in the matters mentioned in each item of the Paragraph 1 of Article 12 with respect to the ship registered under Article 11, or when the owner of the ship discontinued the continual use of the ship registered under Article 11 for discharge of wastes in accordance with the provision of item (3) or (4) of the Paragraph 2 of Article 10, the owner of the ship should, without delay, report to the Commandant of the Japan Coast Guard to that effect.

Article 15 (Cancellation of Registration)

The Commandant of the Japan Coast Guard may, when he considers that a ship registered under Article 11 has come to fail to comply with the technical standards provided by the Ministry of LIT Ordinance under the Paragraph 2 of Article 12, cancel the registration of the ship.

Article 16 (Wastes Disposal Record Book)

1. The master of a ship registered under Article 11 (the owner of a ship, in case of a towed ship, etc.; the same should apply in the following Paragraph and Paragraph 3) should keep a wastes disposal record book on board the ship (at the office of the ship who manages the ship in case of a towed ship, etc.).
2. The master of a ship should, whenever the discharge of wastes and other works concerning the handling of wastes which are prescribed by the Ministry of LIT Ordinance have taken place on board the ship, make entry in the wastes disposal record book as provided by the Ministry of LIT Ordinance.
3. The master of a ship should keep the wastes disposal record book on board the ship for two years from the day when the last entry was made.
4. In addition to those prescribed in the preceding three Paragraphs, the form of the wastes disposal record book and other matters necessary for the wastes disposal record book should be provided by the Ministry of LIT Ordinance.

Article 17 (Reporting of Temporary Discharge)

The owner of a ship other than the ship which has been registered under Article 11 should, every time he uses the ship for the discharge of the wastes (excluding that provided by the Cabinet Order under the Paragraph 3 of Article 11) provided by item (4) of the Paragraph 2 of Article 10 in a quantity not less than that provided by the Ministry of LIT Ordinance and in accordance with the item(4), report to the Commandant of the Japan Coast Guard in advance as provided by the Ministry of LIT Ordinance.

Article 18 (Prohibition of Discharge of Oil and Wastes from an Off-shore Facility and an Airplane)

1. No person may discharge oil or wastes from an off-shore facility or an airplane in sea area. However, this should not apply to the discharge of oil or wastes that falls under any of the following items:

(1) The discharge of oil or wastes for the purpose of securing the safety of the off-shore facility or the airplane, or saving human life;

(2) The discharge of oil or wastes when the oil or wastes has been discharged due to damage to the off-shore facility or to the airplane, or for other unavoidable reasons and all the possible measures to prevent the continuous discharge of oil or wastes has been taken.

2. The provision of the principal clause of the preceding Paragraph should not apply to the discharge of oil or wastes from the off-shore facility that falls under any of the following items:

(1) The discharge of excrement etc. which arises from the daily life of persons in the off-shore facility (the discharge of excrement etc. as defined by the Cabinet Order from an off-shore facility whose capability of accommodation is not less than the number of persons as defined by the Cabinet Order under item (1) of Paragraph 2 of Article 10, should be made in accordance with the criteria concerning the method of discharge defined by the Cabinet Order);

(2) The discharge of refuse or other similar wastes which arise from the daily life of persons in the off-shore facility (excluding the wastes provided by the Cabinet Order under the item (2), Paragraph 2 of Article 10) and should be made in accordance with criteria concerning the sea area and the method of discharge defined by the Cabinet Order.

(3) The discharge of oil or the wastes prescribed in item (4) of the Paragraph 2 of Article 10 (excluding the wastes provided by the Cabinet Order under the Paragraph 3 of Article 10) should be made in accordance with the criteria concerning the method of discharge defined by the Cabinet Order.

3. The provision of the principal clause of the Paragraph 1 should not apply to the discharge of oil or wastes that falls under any of the following items:

(1) The discharge of sewage oil or wastes provided by the Cabinet Order, which arise from daily life of persons on board the airplane, and the discharge of which in sea area is unavoidable:

(2) The discharge of wastes loaded in a Party to be made in accordance with the provisions of the legislation of that country (excluding the discharge made in the surrounding sea areas of Japan).

4. The provisions of the Paragraphs 4 and 5 of Article 4 should apply mutatis mutandis to the discharge of oil from an airplane for the purpose of examination, research or investigation concerning the prevention of marine pollution.

Article 19-2 (Regulation for Preventing Pollution by Off-shore Facility Wastes)

1. The manager of an off-shore facility prescribed by the Ministry of LIT Ordinance should make Regulation for Preventing Pollution by Off-shore Facility Wastes prescribed by the Ministry of LIT Ordinance on the matters to be observed by those who carry out works of handling off-shore facility wastes (the refuse or other similar wastes which arise from daily life of the persons in the off-shore facility and other wastes prescribed by the Cabinet Order; hereafter the same) and other matters for preventing improper discharge of off-shore facility wastes, and keep and display the Regulation in the off-shore facility. However, when it is difficult to keep or display it in the off-shore facility, it may be kept at the office of the manager of the off-shore facility.

2. The manager of the off-shore facility should make the matters prescribed in the Regulation for Preventing Pollution by Off-shore Facility Wastes known to the persons in the off-shore facility who carry out the works of handling the off-shore facility wastes. (Display of Matters to be Observed Concerning the Discharge of Off-shore Facility and Others)

Article 19-2-2

The manager of an off-shore facility prescribed by the Ministry of LIT Ordinance should, as prescribed by the Ministry of LIT Ordinance, display in the off-shore facility the matters to be observed by those who are in the off-shore facility concerning the discharge of off-shore facility wastes and other matters for preventing improper discharge of off-shore facility wastes so that they can easily be seen by those who are in the off-shore facility.

1.2.4 The Seacoast Law

The date entered into force: May. 12, 1956; Final revision Feb. 8, 2004

Brief Summary of Each Article

1. Purpose

The purpose of the Seacoast Law is to help conserve the land of Japan by protecting the country's seacoast from damage due to sea or ground movement, improving and conserving the coastal environment and promoting proper use of the coast by the public.

2. Basic policy for coastal conservation

The competent minister of state should establish a basic policy for coastal conservation in a seacoast conservation area.

3. Management

Management of seacoast conservation area should be performed by the prefectural governor.

4. Management

Management of public seacoast area should be performed by the prefectural governor.

Article 1 (Purpose)

The purpose of this Law is to help conserve the land of Japan by protecting the country's seacoast from damage due to sea or ground movement including, but not limited to, tsunami, storm surges and high waves, improving and conserving the coastal environment and promoting proper use of the coast by the public.

Article 2-2 (Basic policy for coastal conservation)

The competent minister of state should establish a basic policy for coastal conservation in a seacoast conservation area, etc. (hereinafter referred to as a "basic policy for coastal conservation") by Cabinet order.

Article 5 (Management)

1. Management of any seacoast conservation area should be performed by the prefectural manager who has jurisdiction over the region in which the seacoast conservation area concerned is located.
2. Notwithstanding the foregoing, any seacoast conservation area which deemed fit to be managed by the mayor of a municipality and designated by the prefectural governor concerned should be managed by the mayor of the municipality in which the seacoast conservation area concerned is located.
3. Notwithstanding the provisions of the two preceding paragraphs, if a seacoast conservation area overlaps with a port area, a port-adjacent area or a fishing port area, the overlapping area should be managed by the head of the port management body responsible for the port area concerned or the port-adjacent area concerned or by the head of the local public entity serving as the port management body for the fishing port concerned.
4. Notwithstanding the provisions of Paragraph 1 and Paragraph 2, any port area or port-adjacent area or any seacoast conservation area adjoining a port area that is deemed fit to be managed by the head of the port management body or the head of the local public entity serving as the port management body and that is determined through consultation between the prefectural governor concerned and the head of the port management body concerned or the head of the local public entity serving as the port management body should be managed by the head of the port management body concerned or the head of the local public entity serving as the port management body.
5. Notwithstanding the provisions of the first four paragraphs of this article, in the case where a set of shore protection facilities are shared by two or more seacoast conservation areas managed by different coastal managers and are deemed fit to be managed by a single coastal manager, if the competent ministers of state under Paragraph 2 of Article 40 have reached agreement as a result of consultation, said facilities should be managed by the coastal manager, under the supervision of the competent minister who has jurisdiction over the management of said facilities, as agreed upon as a result of said consultation.
6. The mayor of a municipality may, on the basis of consultation with the coastal manager concerned, perform part of the management of a seacoast conservation area located in the municipality concerned as stipulated in the relevant Cabinet order.
7. In the case where a prefectural governor intends to make designation under the provision of Paragraph 2, he should in advance consult the mayor of the municipality concerned.
8. In the case that a prefectural governor makes designation under the provision of Paragraph 2 or makes area determination under the provision of Paragraph 4, he should give public notice of such area designation or determination and report it to the competent minister of state pursuant to the relevant ordinance of the competent ministry. The same should apply to any alteration of such area designation or determination.
9. In the case that the mayor of a municipality manages a seacoast conservation area as a result of consultation under Paragraph 6, he should give public notice of such arrangement

pursuant to the relevant ordinance of the competent ministry. The same should apply to any alteration of such arrangement.

10. Designation under Paragraph 2 and consultation under Paragraph 4 and Paragraph 6 should be put into effect by public notice under the two preceding paragraphs.

Article 37-3 (Management)

1. Each public seacoast area should be managed by the prefectural governor who has jurisdiction over the region in which said public seacoast area is located.

2. Notwithstanding the provision of the preceding paragraph, of the public seacoast areas adjoining a seacoast conservation area, a port area or a fishing port area (hereafter in this article and Article 40 referred to as a "specified area"), any area that is deemed fit to be managed by a coastal manager, the head of a port management body or the head of a local public entity acting as a fishing port manager (hereafter in this article and Article 40 referred to as a "specified-area manager") and is specified through consultation between the prefectural governor and the specified-area manager concerned should be managed by said specified-area manager.

3. Notwithstanding the provisions of the two preceding paragraphs, the mayor of any municipality may, after consultation with the prefectural governor concerned (or the prefectural governor concerned and the specified-area manager concerned in the case of a public seacoast area under the jurisdiction of a specified-area manager under the provision of the preceding paragraph) manage any public seacoast area located in the municipality concerned.

4. In the case that the prefectural governor or the mayor of a municipality designates an area through consultation under the provision of Paragraph 2 or manages a public seacoast area after consultation as set forth in the preceding paragraph, the prefectural governor concerned or the mayor concerned should give public notice of such arrangement pursuant to the relevant ordinance of the competent ministry. The same should apply to any alteration of such arrangement.

5. Consultation under Paragraph 2 and Paragraph 3 should become effective upon giving public notice as set forth in the preceding paragraph.

2. Basic policy for coastal conservation

(Related to the Article 2-2 of the seacoast law)

1. Basic guidelines concerning coastal conservation

2. Basic requirements for coastal conservation

(a) Other important considerations concerning coastal conservation

(b) Closer cooperation with local community and education on coastal conservation

In order to conserve a coast effectively, it is essential to cooperate closely with the local community and to consider its opinions.

With a view to build disaster-resistant communities, measures to raise local residents' awareness of the importance of disaster prevention efforts and to educate them on prevention methods, such as by providing information in cooperation with the authorities and disseminating information on what to do in an emergency, should be taken, in addition to the development and improvement of shore protection facilities.

Coastal beautification including garbage control in the coastal zone should be carried out with the cooperation of local residents and volunteers, and an institutional framework for public participation should be established. Education to raise morals should also be made to prevent deterioration of the coastal environment due mainly to abuse and garbage dumping.

To promote proper public use of coasts, rules for coast use adapted to regional characteristics should be made and information on safe and proper use should be provided from time to time, as the coast is open to the sea and can be a dangerous place where life can be lost. Users should be clearly informed of any restrictions on various activities for the purpose of coastal conservation.

In order to form a closer cooperative relationship with local residents, the philosophy of coastal conservation should be promoted, and environmental education should be improved to encourage local proponents of coastal conservation.

1.2.5 Port and Harbor Law

The date entered into force: May 31, 1950; Final revision on June 7, 2006

Since ports are a necessary social capital for Japan and foreign countries and for national marine traffic, the Port and Harbor Law is instituted for the purpose of orderly development of ports and their proper management, and the developmental conservation route is regulated in the law.

The developmental conservation route is designated in case construction related to development and conservation is necessary to secure ship routes in sea areas outside of port areas and river areas. Inside of the developmental conservation route, it is prohibited to discharge or derelict ships and soil and stones, and in case of seisin of the route? by constructing structures or soil collection, permission by Minister of the Transport is required(Article 43 Provision 8).

Article 12 (Functions)

Functions of Port Authority should be as follows.

(2) Maintain port area and port facilities under the management of Port Authority in good operating conditions (including the removal of floating materials, abandoned ships and other materials which may hinder the navigation of ships in the port area, clean water areas and prevent pollution within the port area).

1.2.6 Establishment Law of the Ministry of Land, Infrastructure and Transport

The date entered into force: January 6, 2001; Final revision on June 14, 2006

Article 4 (Functions)

Functions of the Ministry of Land, Infrastructure and Transport should be as follows.

(103) Matters concerning the function of pollution prevention of the ocean by the State

1.3 About the London Convention, MARPOL Convention, and Basel Convention

'Law relating to the Prevention of Marine Pollution and Maritime Disaster (Law No.136 of 1970)' works as a national law of London Convention Protocol 1996 and MARPOL 73/78 (Annex IV and V), while 'Waste Disposal and Public Cleansing Law (Law No.137 of 1970) and 'Law for the Control of Export Import and Others of Specified Hazardous Wastes and Other Wasted (Law No.108 of 1992)' deal with matters related to Basel Convention.

1.4 The current national legal status of port waste reception facilities

In accordance with 'the Law Relating to the Prevention of Marine Pollution and Maritime Disaster' (Law No. 136 of 1970 as amended through Law No.68 of 1998), the port managing bodies, taking into consideration types and amount of discharged oil, discharged noxious liquid substances, wastes and discharged gas (hereafter 'discharged oil and so forth' in this article) generated at a port area in a relevant port and surrounding areas, in the case that the necessity to prevent marine pollution by discharge or emission of oil from a ship and offshore facilities at a port area in a relevant port and surrounding sea areas is recognized, should provide construction and disposition of treatment facilities of discharged oil, of discharged noxious liquid substances and of wastes, and areas where wastes are treated and treatment facilities of discharged gas (the whole facilities to treat discharged gas) in Article 3, Paragraph 3-1, 'Port Planning and Other Planning on Port Development' of 'the Port and Harbor Law' (Law No. 218 of 1950) in order to ensure construction and disposition of the equipments stated above. The port managing bodies should also manage and operate waste landfill seawalls, marital waste treatment facilities of discharged oil and discharged gas as their works in accordance with Article 12 of 'the Port and Harbor Law.'

2. Institutional Arrangements and Programmes

2.1 Brief introduction of structure and function of national authorities (ministries), local governments, institutes, NGOs and other entities

- Responsibility for non-industrial waste disposal Local municipalities
- Permission and Supervision of non-industrial waste treatment firmsMunicipalities (Under Ministry of the Environment, Waste & Recycling Department)
- Responsibility for industrial waste disposal Waste discharging enterprises

- Permission and Supervision of industrial waste treatment firms Prefectures and some cities (Under the Ministry of the Environment, Waste & Recycling Department)
 - Designing and Development of discharge to ocean from shipsdividing duties between Ministry of Land Infrastructure and Transport, Policy Bureau and Ministry of the Environment, Global Environment Bureau
 - Permission of discharge to ocean from ships* Ministry of the Environment, Global Environment Bureau
 - Confirmation of waste discharge from ships in advance* Japan Coast Guard
 - Registration of waste discharge ships Japan Coast Guard
 - Coastal management basically Governors of prefectures
 - Port management Ports of Authority established by related local public institutions
 - Development of fish ports and fishing groundbasically local public institutions or Fishery Cooperative Associations
- * not enacted yet (effective schedule: April 1, 2007)

2.2 The relationship between activities of such authorities and entities with the national and international legal instruments with respect to obligations or recommendations

Recently, problems related to marine litter and washed-up litter have been more significant along the Japanese coastal lines, and local municipalities and volunteers have made efforts of recovering them. Several agencies of the Japanese government have also concerned this matter. The followings are some of the projects which related governmental agencies which have developed and carried out in order to address the problems.

--Marine Environment Improvement Project (the Ministry of Land Infrastructure and Transport)

The government (the Ministry of Land Infrastructure and Transport) directly operates Marine Environment Improvement Project. A part of the project is recovering drifting litter and oil. The target sea areas are Tokyo Bay, Ise Bay, the Seto Inland Sea, Ariake Sea, and a part of Yatsushiro Sea.

--Natural Disaster-related Emergency Large-scale Countermeasure Project against Driftwoods (the Ministry of Land Infrastructure and Transport, the Ministry of Agriculture, Forestry and Fisheries of Japan)

When driftwoods, which floods or typhoons wash off from inland areas, or which are transported from foreign countries, are accumulated at the beaches in large quantity, they prevent dikes, detached breakwaters, and beaches from functioning as conserving facilities of coasts. Local municipalities which are responsible for coast management implement emergency disposal practices of these driftwoods. The project is basically carried out when the operation is presumed to be completed by the end of a fiscal year. Disposal targets are 1)

all the driftwoods which are washed-up inside of the coast conservation areas; 2) driftwoods which are washed-up within 1 kilometer of dikes, jetties, sea walls, breast walls, detached breakwaters, and beaches; and 3) the quantity of driftage are more than 1,000 m³. This project targets only urgent cases and driftwoods which are washed-up inside the coast conservation areas, and it does not target large-scale constant washed-up litter.

--Subsidy for Promoting the Recycling-based Society (Ministry of the Environment)

When strategic goals of how to restrict waste discharge and how to promote recycling activities are set, this subsidy is used for developing necessary facilities for waste treatment and recycling wastes, and for supporting related plans. (This subsidy is not specialized in treatment of washed-up litter.)

See the attachment, 'Activities related to marine litter and washed-up litter' for detailed plans of recovery, transport and treatment.

Attachment: Activities related to Marine Litter and Washed-up Litter

(1) Countermeasures against litter sources

--Guidance and enlightenment activities to people and parties related to maritime affairs, citizens, and fishermen (related agencies)

--Provision of information and requests of prevention measures against oil spill to other countries, and cooperation with neighboring countries through international institutions (the Ministry of Foreign Affairs of Japan, Ministry of the Environment)

--Consideration of efficient ways of recovery and transport of fishing gears, which helps promotion of recycling activities of Styrofoam fishing gears used in fish farms (Fisheries Agency)

-Enlightenment activities aiming at preventing illegal discharge into rivers (setting signs and implementing clean-up activities with citizens) (river management bodies)

(2) Recovery/transport/Treatment

--Marine Environment Improvement Project (the Ministry of Land Infrastructure and Transport)

--Natural disaster-related Emergency Large-scale Countermeasure Project against Driftwoods (the Ministry of Land Infrastructure and Transport, the Ministry of Agriculture, Forestry and Fisheries of Japan)

--Subsidy for Promoting the Recycling-based Society (subsidy for developing facilities of waste treatment) (Ministry of the Environment)

(3) Understanding of situations

--Visual Survey on Marine Driftage (Japan Coast Guard)

--Survey on Floating Plastics and Tar balls (Japan Meteorological Agency)

- Marine Environment Monitoring Survey (Ministry of the Environment)
- Survey on and Washed up Driftage on the Coasts along the Sea of Japan and the Yellow Sea (Northwest Pacific Region Environmental Cooperation Center (NPEC))
- Survey on Classification of Washed-up Litter (Japan Environmental Action Network (JEAN), Japan Coast Guard)
- Understanding Situations of being washed-up in large quantity (Ministry of the Environment, Japan Coast Guard (Cooperated with local municipal entities))
- Collecting Information of litter quantities by beach clean-up activities, cooperated by prefectures (Fisheries Agency)
- Development of track prediction model of marine litter and washed-up litter (Ministry of the Environment)
- Cooperation with neighboring countries through international institutions (the Ministry of Foreign Affairs of Japan, Ministry of the Environment)

2.3 Programmes and/or projects of such authorities and entities on the marine litter issue (if any) including newly developed or prepared activities

Governmental Countermeasures Meeting was established in April 2006 to set national countermeasures against drifted marine litter. The Ministry of the Environment leads operation of the meeting, and the participants are director-generals of related ministry bureaus.

1. Mid- and long-term objective of the meeting is to review and discuss measures to address pollutant sources, including international ones.

2. The meeting discusses practical measures to be implemented earlier, especially in areas where damages are significant, and the meeting is scheduled to compile the measures to be taken in March 2007.

The meeting has been held three times. These meetings played a role as a coordination conference between the State and local municipalities to inform what measure the State would take and to exchange information about measures of each municipality.

Governmental Countermeasure Meeting was established, and director-generals of related ministry bureaus discussed practical countermeasures against marine litter on April 4, 2006. The meeting will review and discuss 1) current status, 2) measures being taken, 3) measures including international measures, which address pollutant sources, and 4) measures in areas where damages are significant. The meeting is scheduled to compile the measures to be taken in March 2007.

The following outline of establishment of the meeting:

1. In accordance with “the Governmental response policy on the 8th proposals of special zones for Structural Reform (decided on February 15, 2006 by Headquarters for Promotion of Special Zones for Structural Reform), Related Ministry Meeting on Countermeasures against Drifted Marine Litter (hereafter referred to the Meeting) will be organized to develop a structure in which the Japanese Government discusses practical countermeasures against drifted marine litter.
2. The members of the Meeting are as follows: Director General for Okinawa Affairs, Cabinet Office Government of Japan: Director-General for Policy Coordination, Minister’s Secretariat, Ministry of Internal Affairs and Communications: Director-General, Global Issues Department, Minister’s Secretariat, the Ministry of Foreign Affairs of Japan: Deputy Director- General, Fisheries Agency: Director-General, Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy Trade and Industry: Director-General, River Bureau, the Ministry of Land, Infrastructure and Transport: Director-General, Ports and Harbors Bureau, the Ministry of Land, Infrastructure and Transport: Deputy Director-General, Japan Meteorological Agency: Director, Guard and Rescue Department, Japan Coast Guard: Director-General, Waste Management and Recycling Department, Minister’s Secretariat, Ministry of the Environment: Director-general, Global Environment Bureau, Ministry of the Environment: and Chief of Headquarters for Promotion of Special Zones for Structural Reform. If appropriate, members of the meeting will be added.
3. Ministry of the Environment is in charge of operation of the Meeting with cooperation with Ministry of Land, Infrastructure and Transport and the Ministry of Agriculture, Forestry and Fisheries of Japan.
4. Academic experts will be asked to participate in the Meeting to provide their opinions on countermeasures against drifted marine litter.
5. In the Meeting, the executive board is organized which is comprised of directors of related ministry departments and divisions.

The list of directors of related ministry departments and divisions

Director, Policy Planning, assisting to Director-General for Okinawa Affairs, Cabinet office Government of Japan

Director, Policy Planning Division, Local Administration Bureau, Ministry of Internal Affairs and Communications

Director, Global Environment Division, International Cooperation Bureau, The Ministry of Foreign Affairs of Japan

Director, Resources and Environment Research Division, Resources Enhancement Promotion Department, Fisheries Agency

Director, Environmental Protection Guidance Office, Environment Policy Division, Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy,

Trade and Transport

Director, Seacoast Office, Land Conservation Division, Sabo (Erosion and Sediment Control) Department, River Bureau, Ministry of Land, Infrastructure and Transport

Director, Environment and Engineering Division, Ports and Harbors Bureau, Ministry of Land, Infrastructure and Transport

Director, Global Environment Affairs Division, Global Environment and Marine Department, Japan Meteorological Agency

Director, Environmental Disaster Prevention Division, Guard and Rescue Department, Japan Coast Guard

Director, Waste Management Division, Waste Management and Recycling Department, Minister's Secretariat, Ministry of the Environment

Director, Global Environmental Issues Division, Global Environment Bureau, Ministry of the Environment

Counselor, Headquarters for Promotion of Special Zones for Structural Reform, Cabinet Secretariat

3. National concerns and efforts

Recently, the number of marine litter driftage to the Japanese coast lines has been increased, and much social attention has been drawn to this matter. Following the adoption of the implementation of this project at the 10th NOWPAP Meeting held in Toyama last November, NOWPAP will hold the International Coastal Cleanup (ICC) in Tsushima-city, Nagasaki-Prefecture this September, which the Japanese government, municipalities and related NGOs will participate in. This activity will be beneficial for the NOWPAP Member governments and NGOs to develop their cooperating strategies as well as it will be an actual practice to address a pollution-significant area.

The four NOWPAP Members discharge marine litter, while the driftage annoys them. In this context, the four countries are perpetrators and victims at the same time. Therefore, it is essential to address the pollutant sources in every country for the ultimate solution. Japan will cooperate with the other Members and make its utmost efforts to address this international problem.

It is desirable that development of documents and its circulation are done more swiftly for having constructive and smooth discussions at related meetings with related countries.

National Summary of Korea on Marine Litter

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1. Legal aspects

1.1 List of laws and institutions related to marine environment and environment protection

There are 30 laws related to the marine environment and environmental protection in Korean governments. Relevant laws and institutions of the Government Agency on the marine litter are shown below.

Governmental Agency	Related Laws and Institutions
MOMAF (Ministry of Maritime Affairs and Fisheries) (14 laws)	<ul style="list-style-type: none"> - Maritime Pollution Prevention Law - Swampy Land Conservation Law - Fisheries Law - Fishing Ground Management Law - Ocean Development Basic Law - Coast Management Law - Harbor Law - Open-Port Regularity Law - Fish village and Basin Law - Public Water-Surface Management Law - Public Water-Surface Reclamation Law - Law of marine debris on the transboundary movement and its treatment - Purchase Institution of marine debris pulled up during fishing - Rule of the specification and management on the Charged and Experience Fishing Place
Ministry of Environment (12 laws)	<ul style="list-style-type: none"> - Nature Environments Conservation Law - Swampy Land Conservation Law - Special Law on Dodo's ecosystem conservation - Water Quality Environmental Conservation Law

	<ul style="list-style-type: none"> - Waste Management Law - Law of treatment on Dirty Water, Excrements and Livestock Wastewater - Law of Promotion on Waste Treatment Equipment Installation and its vicinity support - Law on Resource Economy and Recycling Promotion - Special Financial Law on Environmental Improvement - Share Law on Environmental Improvement - Natural Park Law - Environmental Policy Basic Law
Korea Coast Guard (2 laws)	<ul style="list-style-type: none"> - Maritime Pollution Prevention Law - Youth Maritime Environmental Conservation Helper Law
Ministry of Commerce, Industry and Energy (2 laws)	<ul style="list-style-type: none"> - Promotion Law of Development, application and Popularization on New and renewable Energy - Special Financial Law on Energy and Resource Business

1.2. Brief summary of articles related to marine litter

1.2.1 Maritime Pollution Prevention Law

Maritime Pollution Prevention Law is to prevent the pollution of the marine environment by the discharge of harmful substance or industrial wastes. The harmful substance decided by the Ministry Law refers to any substance that is liable to damage marine environmental protection. In order to collect and deal with the marine debris occurring in the sea and flowed into the sea, each administrator should be taken into account the plans according to the Presidential Decree.

1.2.2 Public Water-Surface Management Law

Actions have been undertaken to eliminate any concern occurring to any of owners if such concern has produced a major harmful effect upon the use of public water-surface by leaving boat, useless resources, sunken ship, and moored vessel.

1.2.3 Open-Port Regularity Law

Marine litter such as waste timber, derelict fishing gear, stone and sand shall be prohibited from discharging into the sea within 10 kilometers of the port boundary.

1.2.4 Marine Debris Purchase Institution

Marine litter removal project makes person who are engaged in fishery aware of the importance of the ocean environment and it will have a high degree of the efficiency in cleaning up the marine litter. The purchasing price of the government for marine litter is four thousand won a bag (40ℓ/15kg). The project has been started since 2003, and it will promote to more local self-government place to place.

1.2.5 Youth Maritime Environmental Conservation Helper Law

Costal clean-up activities have provided younger person opportunities for voluntary participation and action on litter issue, such as marine litter distribution survey, litter collecting around offshore, a campaign for the prevention of it. The participant allowance is deemed as some incentives.

Our national law meets the international standard and agreements. The London

Convention and MARPOL are interpreted and applied to the Maritime Pollution Prevention Law in Korea. The Basel Convention is also to the law of marine debris on the transboundary movement and its treatment in agreement joining in 1994.

We still require or recommend the appropriate measures to international conventions and agreements.

We have struggled to establish the ocean conservation policy systematic and integrated continuously.

We have the Purchase Institution of marine debris pulled up during fishing. In the consideration of local status, moveable container box can be installed. The location of the box is near the port or the fish basin. The installation budget can be supported by the National Federation of Fisheries Cooperatives.

2. Institutional Arrangements and Programmes

2.1 Governmental sectors and civil sectors

The MOMAF(Ministry of Maritime Affairs and Fisheries) of Korea is an integrated management sector and practice guidelines on marine litter problems at the national level, which includes the survey of status of marine litters on the ports and other coastal regions of Korea including important fishing area, and clean-up of marine litters, prevention of the input of litters to coastal environments especially from the land-based sources, development of equipments and facilities for survey and clean-up of marine litters, prevention of input,

treatment for re-use and disposal of collected materials, and relevant legal and institutional re-arrangement.

Many local people in coastal area of Korea have participated in various marine debris management activities and gained practical experience on how to act at local level to protect their marine environment. Representative NGOs which are involved in the marine debris management in the region are Korea Marine Rescue Center (KMRC) and Coastal Conservation Network.

2.2 MANGO project

Our efforts to establish the comprehensive marine litter management framework through close cooperation among civil, governmental, and research sectors have contributed in setting up a new paradigm in overall marine environmental policy of Korea. It calls the MANGO (Marine Alliance among Nongovernmental organizations Governmental sector, and research Organizations) project.

Interests and capacities of the civil sector on marine environmental management have been greatly enhanced, and a cooperative relationship between civil and governmental sectors has been developed for the last five years. Environmental issues in coastal areas are delivered to the governmental sector through policy researches which are carried out with close cooperation with local stakeholders. The government MOMAF proclaimed "Ocean Clean-up Day" in every month the third Friday, and citizens all participate in the oceanic environment preservation motion voluntarily. Participations and actions of general public have increased by education and public relations activities by local activists who have actively participated in various marine debris programmes.

2.3 Governmental administration: Polluters Pay Principle

Local governments in the river basin and coastal area participate in the activities come to realize the Polluters Pay Principle as the most important rule for ensuring sustainable development. For instance, Incheon City which is located in coastal zone and two local governments, Seoul and Kyoungi province signed the MOU in a cooperative way. The local governments do some management work in order to prevent the sea contamination caused by the marine debris or its sediments. The contents include an establishment of the influx-protection facilities, treatment and collection of marine debris, and dredging of the contaminants.

2.4 Technical report, summary and educational materials

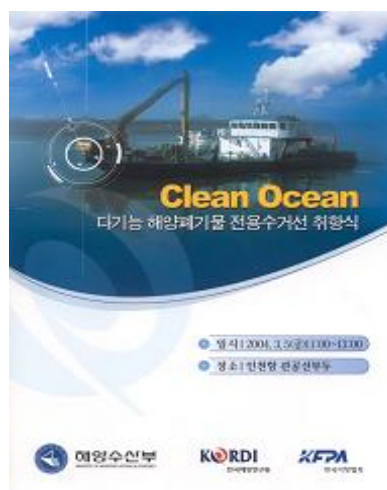
- Technical Report: published from 1999 to present on the Integrated Treatment System to Marine Litter for Offshore Korea.



- Pamphlet: Polystyrene Buoy Thermal Volume Reduction System



- Pamphlet: Multi functional Marine Litter Recovery Vessel (Clean Ocean)



- Educational Materials



- Summary Report of administration activities on marine litter



2.5 Projects on developing integrated management strategies

In 1999, the Ministry of Maritime Affairs and Fisheries (MOMAF) of Korea initiated national project to develop an integrated management strategies and practice guidelines on marine litter problems on the national level. The project had been mainly carried out by the Maritime and Ocean Engineering Research Institute (MOERI, former KRISO)/Korea Ocean Research & Development Institute (KORDI) and Korea Maritime Institute (KMI). The project is called "Practical Integrated Treatment System for Marine Litter". MOERI develops environmental practical facility categorized with prevention technology, field survey technology, recovery technology and recycling technology. KMI supports those implications with some valuable achievements of the administrative organizations.

- Prevention Technology

Floating debris containment boom



- Field Survey Technology:



Tow-type survey system and net-fishing gears (1,000m depth class)

- Recovery Technology:



Multi-functional Marine Debris Recovery

- Recycling Technology :



A polystyrene volume-reduction equipment



Incineration pilot facility



On-board combined treatment system

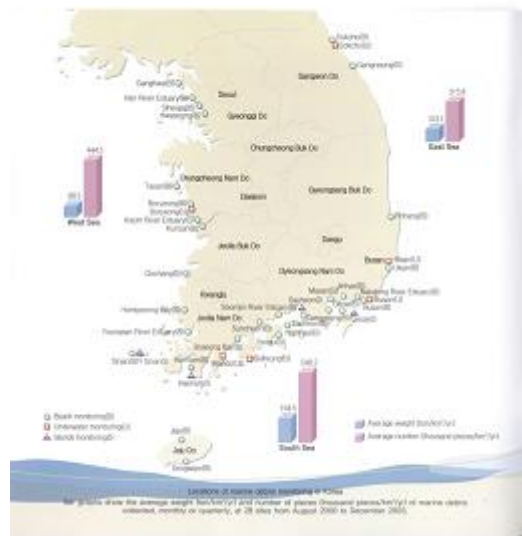


Waste FRP vessel melting system

Administrative Organization:

- Until 1999: After-treatment oriented marine debris management
- 1999: Comprehensive debris management system from generation to disposal
- 2000: Gathering better information on marine debris on Korean beaches
- 2001: Improving the management framework. Empowering environmental activists on marine debris issue. Raising awareness through education and public relations activities
- 2003: Toward regional cooperation on the transboundary marine debris issue

- 2004: Opening a new era for marine debris management



Offshore and sea-bed marine litter monitoring and its database on collecting materials



Policy and education workshops for local environmental NGOs

2.6 National law meets the international standard and agreement

Our national laws meet the international standard and agreement. In order to improve the actual administrative plan on the marine litter, MOMAF had been carried on the political direction to the pre-interception of debris occurrence spot, quick treatment for the marine litter, and resources recycling.

3. National concerns and efforts

One single ocean-related governmental agency, the Ministry of Maritime Affairs and Fisheries (MOMAF) in Korea has been established since 1996. Driving by the MOMAF, the ocean policy has been institutionally integrated and settled down. The problem of marine litter to be solved in the direction from national level to local level, from fishermen to general public, from beaches to islands and underwater, and from Korean seas to Northeast Asian seas.

We have put much effort to change perception and behavior of Koreans on marine debris through education and public relations activities. Diverse education and public relations materials have been developed and distributed to NGOs, schools, and national and local governments.

International Coastal Clean-up activities have provided many Koreans with opportunities for voluntary participation and action on the marine debris issue. For four years from 2001 through 2004, total of 6,500 people had participated in the clean-up activities at 99 areas. We have monitored marine debris from other countries on beaches in Bigeum Island in the southwestern coast of Korea since 2003.

We have also developed many technologies to collect and treat marine litter in effective and environmental way. The integrated treatment system for marine litter has been constructed helped by marine science and engineering technology is categorised with prevention, field survey, and recovery and recycling on the debris.

First, the development of the towed-type survey system for the derelict fishing nets on the sea-bed in the East sea has been carried and the reliability of the equipment has been guaranteed by in-situ test on the seabed of 1,000m water depth while 7m effective width is kept.

Second, while continuing development from last year, the special ship of combined treatment system for marine debris is underway by mounting pre-treatment equipment, RDF (Refuse-Driven Fuel) facility and polystyrene volume-reduction equipment on the ship as facilities of the treatment.

Third, the basic design for the treatment of land waste wood and aquaculture farm waste wood by the typhoon damage has been accomplished.

Forth, it is expanded the polystyrene volume-reduction facility provision project to four places and the management is being carried out. Simultaneously, the law related to the ocean waste is trying to be more systematic for the recycling resources about ocean debris.

This project is to concentrate the focus on the marine environment conservation technology development which is systematic with problem analysis and complementary research in putting the emphasis on practical application business and supply business from this year, by the development of the foundation technology of the first-phase 5 years which has passed.

National Summary of Russia on Marine Litter

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1. Introduction

Russian Federation (RF) environmental regulatory background comprises of a lot of federal laws, government regulations and other documents, including GOSTs (All-Union State Standards), SanPiN (Sanitary Regulations and Norms), RD (Ruling Documents). Legal instruments are given in Section 1 in accordance with their level of importance. Compiling an inventory of the legal instruments related to the marine litter issue is a formidable challenge due to the fact that a considerable part of the legal instruments were suspended following the USSR disintegration. Moreover, many of the documents were to a great extent amended in the course of administrative reforms from 2001 to 2004.

Most of the documents pertaining to the environment pollution, sea pollution in particular, are focused on the issues of pollution by hazardous materials which do not include litter (production and consumption waste).

2. The List of National Laws, Regulations, and Institutional and Sectoral Legislation related to the Marine Litter Issue

The following national laws, regulations, and institutional and sectoral legislations are directly related to the marine litter issue.

1. Constitution of the Russian Federation.
2. Environment Protection Law, Federal Law No. 7.
3. Water Code of the Russian Federation.
4. RF Continental Shelf Law, Federal Law No. 187-FZ.
5. Production and Consumption Wastes Law, Federal Law No. 89-FZ.
6. RF Merchant Shipping Code, Federal Law No. 81-FZ.
7. RF Inland Sea Waters, Territorial Sea, and Contiguous Zone Law, Federal Law No. 155-FZ.
8. RF Exclusive Economic Zone Law, Federal Law No. 191-FZ dated December 17, 1998
9. RF Government Regulation "On the Approval of the Procedure for Determination of Payment and its Limits for Environment pollution, Waste Disposal, and Other Kinds of Abuse", No. 632 dated August 28, 1992.
10. RF Government Regulation "On the Approval of the State Water Body Monitoring Management Provision", No. 307 dated March 14, 1997.
11. RD-31.04.23-94 RF Fishery Fleet Instructions on Preventing Pollution from Ships.
12. RD 31.04. "Polluted Harbor Waters Cleanup Operation Rules".
13. Compulsory Regulations on Sea Ports.

3. The brief summary of articles related to the marine litter issue

3.1. RF Constitution and Federal Laws

3.1.1. Constitution of the Russian Federation

Adopted by nation-wide voting on December 12, 1993. Constitution is cardinal law of the Russian Federation. It approves the rights and freedom of the person, the civil world and the consent, keeps the state unity. Clause 42 says about a problem of environmental contamination, including marine litter.

Article 42 of the RF Constitution reads that every person has the right for the favorable environment, authentic information on its condition, and indemnification for the damage caused to one's health or property through an environmental offense. Citizens' right for a favorable human environment is ensured by means of the environment quality planning and control, by measures aimed at the prevention of environmental abuses and at the environmental improvement, at the accident prevention and accident management.

3.1.2. Environment Protection Law, Federal Law No. 7

Adopted by State Duma on December 20, 2001, approved by Soviet of the Federation on December 26, 2001, put into force on January 10, 2002.

The law defines the basis of the state policy in the domain of environmental protection, which provides for the ecological safety in the sphere of the society and nature interaction, including the continental shelf limits. According to this law, environment pollution is an ingress of some matter and/or energy which properties and location have an adverse effect on the environment. From the notion of environmental harm is defined, i.e. some negative environmental change caused by its pollution entailing natural ecosystem degradation and natural resources depletion. Therefore, marine environment can be a victim of pollution, including trans-border pollution.

Pollution is to be paid for in the form stipulated by the RF legislation, and any activities should include measures to prevent and respond to pollution. Consequently, facilities lacking means of environment pollution control are prohibited from being operated. For the purpose of sustainable functioning of natural ecosystems and especially protecting natural complexes from pollution a set of requirements are to be met when establishing protection and protective zones.

3.1.3. RF Water Code

Adopted by State Duma on April 12, 2006, adopted by Advice of Federation on May 26, 2006. The RF Water Code guarantees the rights of citizens to using reservoirs and defines instructions for use and also differentiates powers between federal, regional and local authorities on management of reservoirs.

Water issues are governed on the assumption that a water body is the most important constituent part of the environment, a habitat for animal and vegetal life, including water

biological resources, on the assumption that it is natural resource used by man for personal and domestic needs, for economic and other kinds of activities, at the same time being a property or other subject matter of a right.

Article 36 (State control and supervision over water body use and protection) provides for the inspection in the established order, and, should such necessity arise, detention of vessels (foreign-flag vessels among them) and other craft guilty of pollution by oil, noxious substances, sewage or litter or on their failure to prevent such water body pollution.

Article 55 (Major requirements to water body protection) states that the owners of water bodies are to take measures in order to protect water bodies, to prevent their pollution, littering and depletion, as well as measures of responding to the above abuse. Protection of the water bodies owned by the state, by the subjects of the Russian Federation, by municipalities is to be implemented by the executive agencies of the state power or the agencies of local self-government within their competence and in compliance with Articles 24 – 27 of the RF Water Code.

Article 56 (Protection of water bodies from pollution and littering) bans:

1. To dump and dispose of production and consumption wastes, including ships and other craft (their part and machinery) removed from service, into the water bodies.
2. To carry out works, resulting in solid particles formation (permitted only when complying with the RF legislation requirements) within a water body.

3.1.4. RF Continental Shelf Law, Federal Law No. 187-FZ

Adopted by State Duma on October 25, 1995, put into force on November 30, 1995

The law defines the RF continental shelf status, the sovereign rights and jurisdiction on its continental shelf and their execution in accordance with the RF Constitution, with generally recognized principals and rules of the international law, and with international treaties.

Article 6 (Federal agencies of state power authority on the continental shelf) defines the legal regime within the zones of environmental emergency and environmental catastrophe. In this connection immediate actions to respond to the accident effects leading to pollution by oil and substances other than oil should be ensured. Ecological norms (standards) for the content of polluting substances in waste and other materials intended for burial in the continental shelf, a list of noxious substances, waste and other materials prohibited to be buried in the continental shelf, regulation and supervision of waste and other materials burial have been established.

3.1.5. Production and Consumption Wastes Law, Federal Law No. 89-FZ

Adopted by State Duma on May 22, 1998, approved by Soviet of the Federation on June 10, 1998, put into force on June 24, 1998.

The law defines the legal basis for the production and consumption waste management for the sake of preventing the harmful effect of the production and consumption waste on human health and on the natural environment, as well as for bringing such wastes into the economy to be used as a supplementary source of raw materials.

Article 12 (Requirements to the waste disposal sites) regulates waste disposal, and bans their disposal in areas where a threat of polluting water conservation zones, water-producing areas, and recreational zones may arise.

3.1.6. Merchant Shipping Code, Federal Law No. 81-FZ

Adopted by State Duma on March 31, 1999, approved by Soviet of the Federation on April 22, 1999, put into force on April 30, 1999. As amended by the Federal Law No. 168-FZ dated December 12, 2005.

The Code governs the relations arising from merchant shipping. The marine litter question is considered in the Code (articles 25 and 92).

Article 25 (Major ship's documents) reads that a vessel among the other document required for navigation should carry a certificate of the standard pattern (issued by technical survey and classification institutions) on the prevention of pollution by litter, as well as a Litter Record Book.

Article 92 (Execution of the public duties by the Pilot) reads that in case of the Master's non-compliance with the navigation rules and regulations for the prevention of pollution by oil, noxious substances, sewage or litter from ships the pilot in charge of the ship is to immediately notify the Harbor Master.

3.1.7. RF Inland Sea Waters, Territorial Sea, and Contiguous Zone Law, Federal Law No. 155-FZ

Adopted by State Duma on July 16, 1998, approved by Soviet of the Federation on July 17, 1998, put in force on July 31, 1998.

The law defines the status and legal regime within the inland sea waters, territorial sea and contiguous zone of the Russian Federation, including all the rights within its inland sea waters, territorial sea, contiguous zone and the procedure for their implementation in accordance with the RF Constitution, with generally recognized principals and rules of the international law, with international treaties and the federal laws.

Article 28 (Responsibilities of the informers, engaged in marine research operations) provides for mandatory notification of the shore-based authorities on finding a pollution, pollution by garbage included.

3.1.8. RF Exclusive Economic Zone Law, Federal Law No. 191-FZ dated December 17, 1998

Adopted by State Duma on November 18, 1998, approved by Soviet of the Federation on December 2, 1998, (as amended on August 8, 2001; March 21, 2002; April 22, 2003; June 30, 2003; November 11, 2003)

The law defines the status of the exclusive economic zone of the Russian Federation, the sovereign rights and jurisdiction within its exclusive economic zone, and their execution in compliance with the RF Constitution, generally recognizes principals and rules of the international law and international treaties.

Article 23 (Responsibilities of Russian and overseas informers, engaged in biological resources study) holds Russian and overseas informers responsible for notification on pollution found, on finding a pollution, pollution by garbage included.

Article 33 (Special areas protection and conservation) provides for specific obligations on the prevention of pollution from ships.

3.2. Government Regulations

3.2.1. RF Government Regulation “On the Approval of the Procedure for Determination of Payment and Limits for Environment pollution, Waste Disposal, and Other Kinds of Abuse”, No. 632 dated August 28, 1992

As revised by the RF Government Regulation No. 1428 dated December 27, 1994, Regulation No. 463 dated June 14, 2001, with amendments made by the Supreme Court ruling No. GKPI 03-49 dated February 12, 2003. The Regulation defines the procedure of determination the payment and its limits for environment pollution, waste disposal, and other kinds of adverse effect. It provides for levying a payment for water body pollution. Payment basic standards are established every polluting substance (waste) component, type of adverse effect taking into account the extent of their danger to the natural environment and to human health.

3.2.2. RF Government Regulation “On the Approval of the State Water Body Monitoring Management Provision”, No. 307 dated March 14, 1997

The Regulation sets the procedure for State water body monitoring management.

As it is stated in Clause 2 of the Regulation the State water body monitoring is to be conducted for the purpose of:

- timely identification and prediction of negative trends affecting the water quality and water body condition, development and implementation of measures aimed at the prevention of the harmful effects of such trends;
- water protection measures effectiveness evaluation;

- informational support of management and control in the field of the water body use and protection.

Clause 6 of the Regulation defines the agency in charge of the state monitoring: “State monitoring of the water bodies is conducting in conjunction with the RF Federal Service for Hydrometeorology and Environment Monitoring (on the surface water bodies) and other specifically authorized government agencies in the field of nature protection”.

State monitoring of water bodies is to be conducted on the unified geo-information basis in order to have its data compatible with the data obtained through other types of environmental monitoring.

Clause 7 of the Regulation stipulates that the Ministry of Natural resources of the Russian Federation conducts monitoring of seas in cooperation with the RF Federal Service for Hydrometeorology and Environment Monitoring.

Clause 11 of the Regulation defines the agencies in charge of the monitoring at the local, territorial, and regional (basin) levels.

Clause 12 of the Regulation determines that the operations pertaining to the state monitoring of water bodies should be financed from the federal budget, budgets of the subjects of the Russian Federation, ecological funds, and at the expense of water users.

3.2.3. RD-31.04.23-94 RF Fishery Fleet Instructions on Preventing Pollution from Ships

Instructions are basically developed in lines with the MARPOL 73/78 international convention.

Sub-clause 1.3.1 holds the Master responsible for the implementation aboard his ship the set of measures aimed at the prevention of pollution from ships.

Sub-clause 1.3.4 holds the Owner responsible for the ships' technical equipment with devices and gear ensuring the prevention of pollution from ships by oil, noxious substances, other than oil, sewage and garbage.

Clause 1.5 sets up the order for documentation all the operations with pollutants and garbage. For instance, sub-clause 1.5.8. places binds every vessel of 400t GRT and over, designs to carry 15 persons or more, to carry a Garbage Record Book. This record book, as well as the other similar documents, is to be kept in accordance with the standard pattern, to be entered into the ship's documents inventory, its leaves tied, and verified by the Harbor Master of the issuing port.

Clause 1.7 determines the procedure for placing the ship's stopping fittings under seal.

Clause 1.8 determines the requirements pertaining to the prevention of pollution within the RF sea port waters. In particular, the classification of ports in dependence of the sea pollution prevention and waters cleaning-up facilities availability is given.

type 1 — ports fitted with sufficient facilities to prevent pollution, to receive polluting substances from ships for further treatment (treatment plants, bilge water collecting ships, pollution control stations, etc.), and water are cleaning means;

type 2 — ports fitted with facilities sufficient only to prevent pollution, to receive polluting substances from ships for further treatment;

type 3 — ports fitted with water area cleaning means only;

type 4 — ports lacking sufficient facilities.

Sub-clause 1.8.4 reads that a port is obliged to receive all the amount of consumption waste accumulated aboard a ship. The said operations are to be conducted at the ship's (ship-owner's) account following the procedure set by Compulsory Regulations on the port in question.

Moreover, according to sub-clause 1.8.8. a vessel may not be granted the port clearance in case of filled own garbage receptacles if the equipment demanded by MARPOL 73/78 and making it possible to carry out dumping permitted by the said Convention and national regulations is not available on board.

Clause 13 is fully dedicated to the consumption garbage issues.

Sub-clause 13.1.2 defines three zones of the prevention pollution by garbage from ships rules application (by the analogy with MARPOL 73/78).

Sub-clauses 13.1.4 and **13.1.5** have been compiled on the basis of Rule 3, Annex V to the MARPOL 73/78 Convention.

Sub-clause 13.1.6 binds ships engaged in fishing in the open sea to collect garbage, permitted to be dumped, aboard for further throwing it overboard at an increased speed on transits upon leaving the limits of fishery zones.

Sub-clause 13.1.7 compiled on the basis of Rule 5, Annex V to the MARPOL 73/78 Convention regulates the garbage management policy in special zones.

Sub-clause 13.1.8 bans dumping of any garbage within the territorial and inner seas of the Russian Federation.

Sub-clause 13.1.12 stipulates that every vessel of 400dwt and over, designs to carry 15 or more that 15 persons, should have a garbage management plan (chart) which requirements are to be followed by all the crewmembers.

Sub-clause 13.1.13 gives a recommendation to use receptacles for garbage removal from ships in the first instance, whether or not dumping garbage into the seas permitted within the area in question.

Clause 13.2 gives a description of the special instances when dumping of garbage (fishing gear as a rule) is permitted for the purpose of ensuring safety of the ship and crew. Besides, instructions are given to the prevention and notification of accidental dumping of fishing gear into the sea.

Clause 13.3 "Garbage Collection Aboard" determines the rules and the procedures for:

- the arrangement of garbage collection sites;

- the display of notice-boards and instructions on garbage collection rules;
- the restrictions on receiving potential garbage aboard;
- the garbage segregation;
- the measures to be taken in approaching special zones, where dumping of any garbage is prohibited.

Clause 13.4 "Garbage Management Aboard Ships defines the rules and procedures for:

- equipping the ships with garbage treatment and garbage incineration facilities aboard;
- oily pieces of fabric incineration;
- food wastes treatment and limitations on their incineration in particular areas.

Clause 13.5 "Garbage Storage aboard Ships" describes the rule for garbage storage in areas where dumping garbage overboard is prohibited.

Clause 13.6 "Transfer of Garbage from Ships" defines the rules and procedures for:

- the garbage transfer into the shore-based or floating receptacles;
- the documentation of all the operations with garbage in the course of its transfer.

3.2.4. P31.04.01-90 "Polluted Harbor Waters Cleanup Operations Rules"

Put into force by the USSR Ministry of Merchant Shipping instructive letter dated March 19, 1990 No. 29.

This document remains in effect as indicated by the RF Ministry of Transport Order No. 50 of May 7, 1998, though it is recognized to be subject to be amended. "Rules" stipulate for a set of organizational, engineering, and technological requirements and recommendations when conducting operations for cleaning polluted port waters from floating impurities and when responding to oil spills.

Section 1 "General Provisions" defines the ports' responsibility to ensure a set of measures aimed at the prevention of port waters pollution and at cleanup operations. It should be, however, noted that the list of the agencies and officers in charge of the "Rules" execution supervision, given in "General Provisions" is out-dated.

Section 2 defines the policy of the extent of the waters pollution evaluation and the requirements to the cleanup from oil and litter quality.

Section 3 gives the ports classification similar to that in clause 1.8 of the «RF Fishery Fleet Instructions on Preventing Pollution from Ships».

Section 4 describes the technical means for the port waters cleanup, the procedure for the determination of their structure and quantities for each port. Sub-clauses 4.5 3) and 4) give

requirements as to the procedure of transportation and disposal of the garbage collected from the sea surface.

Section 5 gives a detailed description of oil and litter recovery from sea surface technologies, for various weather conditions, pollution type, quayage geometry, etc.

Schedule 3 illustrates the harbor waters pollution with garbage visual evaluation scale. See below.

SCHEDULE 3 (mandatory)

WATER SURFACE POLLUTION WITH FLOATING GARBAGE

VISUAL EVALUATION SCALE

Evaluation points	Water surface appearance
0	Clean water surface; in exposed harbor waters of 100sq.m. area minor spots of small-sized garbage are observed
1	On the area of 100sq.m. of the exposed harbor waters separate minor spots of small-sized garbage (of total area not exceeding 2sq.m.) are observed, some articles being of not more than 25cm in length in any direction
2	On the area of 100sq.m. of the exposed harbor waters separate spots of garbage (of total area not exceeding 2sq.m.) are observed, some articles being of not more than 50cm in length in any direction
3	On the area of 100sq.m. of the exposed harbor waters separate spots of garbage (of total area not exceeding 5sq.m.) are observed, some articles with the large side being of not more than 1m in length, garbage accumulation in the corners, blinds, and from the weather side of berths, the polluted waters band being up to 0.5m
4	On the area of 100sq.m. of the exposed harbor waters spots of garbage (of total area not exceeding 10sq.m.) are observed, a considerable number of articles with the large side being of not more than 1.5m in length, garbage accumulation in the corners, blinds, and from the weather side of berths, the polluted waters

	band being up to 1m
5	On the area of 100sq.m. of the exposed harbor waters spots of garbage (of total area more than 10sq.m.) are observed, large-sized articles with the large side being of more than 1.5m in length, garbage accumulation in the corners, blinds, and from the weather side of berths, the polluted waters band exceeding to 1m

3.2.5. Compulsory Regulations on Sea Ports

The requirements of the Compulsory Regulations on the Sea Port (hereinafter referred to as “Compulsory Regulations”) are binding for all Russian-flag and foreign-flag vessels staying within the Port waters and mini-ports of registry waters, regardless of their departmental affiliation and form of ownership, as well as for legal entities and physical bodies conducting their activities within the water areas and territory of the Port and the mini-ports of registry.

Sections of Compulsory Regulations regarding management of wastes from sea-going ships coincide in many respects, so it is expedient to consider the role of these documents on the example of two versions: the sea Port of Vladivostok and mini-port of Chazhma.

1. Compulsory Regulation on the Sea Port of Vladivostok

Clause 1.3 rests the responsibility for the state control of the natural environment pollution prevention with the Harbor Master.

Clause 4.9 reads that within the Port waters the requirements of the MARPOL 73/78 International Convention, with Annexes I-V are applicable, as well as the requirements of the RF marine environment pollution prevention.

Sub-clause 4.9.3 reads that it is prohibited to dump overboard garbage, debris, oily pieces of fabric, and other substances within the Port water area limits.

Having submitted an application to the Port controller, the ship transfers its wastes to a specialized organization.

Sub-clause 4.9.7 forbids the ships that fails to transfer their oily mixtures, oil residues, sewage waters, garbage, while the capacity of their waste tanks (waste disposal containers) is not enough to enable a transit to the next port of call or to dump within a permitted area in compliance with the MARPOL 73/78 Convention requirements, to depart from the Port. When transferring ship’s garbage it is prohibited to mix them: garbage liable to be transferred to be segregated in compliance with the requirements currently in force according to its types and to be collected in specially designed removable facilities.

Sub-clause 4.9.8 reads that wharfingers or berth operators are held responsible for the cleanliness of berths, the adjacent territory and water area.

Besides, it is prohibited to throw garbage, production and consumption wastes, polluted snow, etc. from berths into the Port waters and/or onto the ice covering the Port water area. The techniques for cleaning the territory, berths, and piers from snow, ice, production waste, etc. to be agreed upon with the Administration of the Sea Port of Vladivostok and approved by the state agencies of the environmental and sanitary surveillance.

Persons found guilty of the environment pollution are liable to penalties and damages recovery as stipulated by the RF legislation currently in force.

Pollution cleanup operation costs are to be covered by the guilty party, regardless of any penal action taking place.

2. Compulsory Regulations on the Miniport of Bolshoi Kamen

Miniport of Bolshoi Kamen has only 2 berths to carry out cargo-handling operations. Measures taken for the purpose of preventing its waters pollution are identical to those in the port of Vladivostok. The only difference is in the receiving garbage from ships procedure. The garbage is collected into garbage disposal containers placed onto the quay. The garbage is collected by the crew.

3.3. Implementation of the National Legal Instruments in Compliance with the related International Conventions and Agreements.

Russian Federation ratified the following international conventions pertaining to the marine litter issue.

- Federal Law No. 26-FZ dated January 2, 2000 «On the Accession of the Russian Federation to the 1992 Protocol on the Amendments to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 and Denunciation by the Russian Federation of International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971»
- Federal Law No. 17-FZ dated January 2, 2000 «On the Accession of the Russian Federation to the International Convention of Liability and Reimbursement for Damage Caused by Transportation of hazardous and Noxious Matters by Sea, 1996»
- Federal Law No. 9-FZ dated January 6, 1999 «On the Accession of the Russian Federation to the 1996 Protocol on the Amendments to Convention on Limitation of Liability for Maritime Claims, 1976»
- Federal Law No. 49-FZ, dated November 25, 1994 «On Ratification of Basle Convention on the Control of Trans-frontier Carriage of Hazardous Wastes and their Disposal»

Legal instruments pertaining to the prevention of marine pollution by garbage from ships are generally based on the MARPOL 73/78 International Convention. Sea ports are equipped with facilities to receive garbage from ships.

Nevertheless, there are several grave problems hindering the effective protection of the sea from pollution by garbage.

1. There is no clearly defined regulatory background for the prevention of pollution from land-based sources and for the port waters cleaning. This, in turn, results in unavailability of sufficient financial backing of these activities. Such a situation is caused by the fact that the administrative reforming in this domain hasn't been completed yet.
2. Until present time there are numerous water users within the port water areas who, according to the RF legislation, are to be responsible for the cleanliness of the adjacent water areas.
3. Environment monitoring system available at present lacks appropriate financial backing which fact hinders accurate assessment of pollution sources.
4. At some locations the RF laws on solid consumption garbage dumping grounds and on sewage water treatment are not fulfilled.

The above-listed problems ensue uncontrolled pollution of the harbor coastal waters with consumption garbage. Currently efforts are being taken to introduce a new system of the ports' state management. It implies that the port water area condition will be the responsibility of the unified state administration.

A draft law provisionally titled "On Sea Ports" is pending at the State Duma. This law would make it possible to find a solution to certain environmental problems of port.

In the ports there are some specialized companies that receive litter from ships. To conduct such activities these companies should obtain appropriate licenses. At that a company should be able to demonstrate the complete cycle of collected garbage management.

4. Institutional Arrangements and Programmes

All the near-shore water areas are owned by the state and can be sublet to some organizations or companies, the latter acquiring the status of water users then. In compliance with Article 71 of the Water Code «State control in the domain of the water body use and protection is carried out by the Government of the Russian Federation». The primary role of this matter is that of the RF Ministry of Natural Resources. Part from the others, there are two departments within the Ministry structure that are directly involved into the environment protection issues – the Department of the State Policy in the Domain of the Environment Protection and the Department of International Cooperation in the Domain of the Environment Protection and Nature Management.

4.1. Ministry of Natural Resources of the Russian Federation

4.1.1. Department of the State Policy in the Domain of the Environment Protection

Apart from the other functions the Department:

- ensures the implementation of the Ministry activities in the following: protection and management of the water biological resources; protection and conservation of the marine environment within inner seas, territorial seas, exclusive economic zone, and continental shelf of the Russian Federation;
- works out proposals on the development and introduction of economic mechanisms in the domain of environment protection;
- works out and submits for approval rates and policies for environmental abuse calculation;
- conducts an overall assessment of the RF environment condition.

4.1.2. Department of International Cooperation in the Domain of the Environment Protection and Nature Management

Apart from the other functions the Department:

- arranges for the involvement of the Ministry structural divisions. Federal agencies of executive power, and organizations subordinated to the Ministry;
- in cooperation with the framework of intergovernmental and interdepartmental treaties, agreements, and programmes relating to nature management and environment protection issues;
- in elaborating draft international documents (treaties, conventions, agreements, protocols, plans, programmes, etc.), regulating the legal, organizational, and financial matters of the international cooperation, pertaining to nature management and environment protection issues; the Department also assesses the expediency and the progress of international projects and programmes in nature management and environment protection;
- arranges for the fulfillment of the obligations undertaken by the Russian Federation through the fact of participating in the international organizations, multilateral and bilateral international treaties and intergovernmental programmes pertaining to the nature management and environment protection.

4.1.3 Federal Service for the Nature Management Supervision, Ministry of Natural Resources of the Russian Federation

Among the authorities of the Federal Service for the Nature Management Supervision, Ministry of Natural Resources are the following:

- control and supervision of the water body use and protection;
- supervision and observation of the Russian Federation and international regulations and standards pertaining to the marine environment and natural resources of the inner seas, territorial sea, and within the exclusive economic zone;
- supervision of the activities of the territorial administrations of the Service and of the subordinated agencies.

Besides, the Service implements restrictive, preventive and prophylactic measures aimed at the exclusion of and / or response to the effects caused by the violation of the nature management mandatory requirements on the part of legal entities and individuals for the purpose of the suppression of the Russian Federation law-breaking.

4.2. Ministry of Transport of the Russian Federation

4.2.1. Administration of the Sea Port (as illustrated by the Port of Vladivostok)

Administration is under the subordinated to the Federal Agency of Sea and River Transport, Ministry of Transport of the Russian Federation. Administration is a federal governmental institution (non-profit organization), engaged within its scope of competency in rendering state services on the marine fleet in the domain of merchant shipping organization and its safety provision. The basic purpose of Administration activity is the organization of trading navigation in sea to port and behind its limits in the established zones of the Russian Federation responsibility, expressed in direct regulation of transport processes, the organization of appropriate functioning of port and regional systems and objects of a navigation safety, liquidation of emergencies consequences and protection of sea navigation and ports against illegal certificates.

Apart from other functions the Administration:

- arranges the development and brings to public notice of the compulsory regulations on the sea port and traffic rules within the sea port waters and in its approaches;
- interacts with the international maritime agencies in implementation of the port state control procedures set by the international, regional, and intergovernmental agreements and relates to the flag state ships compliance with the established requirements;
- organization and command of oil spill response operations in port;
- supervision of environmental safety provision in the sea port;
- execution of the recovery and, if necessary, disposal and elimination of the sunken property.

4.2.2. ROSMORPORT Federal State Unitary Enterprise

The enterprise is subordinated to the Ministry of Transport of the Russian Federation. It has offices in all the sea basins. Within the NOWPAP region there are the following branches of the Enterprise:

- Vladivostok branch;
- Vanino branch;
- Vostochny branch;
- Nakhodka branch;

- Sakhalin branch.

The Enterprise was established for the sake of creating, maintaining, operation and development of the federal property attached to the Enterprise, including the property complex ensuring the safety of navigation, safety of works (rendering services) in sea commercial and specialized ports (hereinafter referred to as Sea Ports), ensuring the measures of implementation of the federal target-oriented programmes for the marine fleet development.

In particular, the Enterprise functions include, among the others, the following:

- providing for the reception of ballast water, waste, and garbage from ships;
- providing for the reception of bilge water and oil products from ships;
- conducting operations in sea port water area and territory clean-up.

4.3. Administration of Primorsky Krai

Practically all the nature protection functions of Primorsky Krai Administration are allotted to the Department of Nature Management (hereinafter referred to as Department). Department is an agency of the executive power of Primorsky Krai, exercising, within the limits of its authorities, the state control and regulation in the domain of natural resources and environment protection.

Apart from the other functions the Department:

- develops projects of the Primorsky Krai Administration legal instruments relating to the establishment of the size and limits of water body, water protection zones within the territory of Primorsky Krai, their coastal protective bands and their management regime;
- develops the draft laws and other legal instruments of Primorsky Krai relating to the environment protection;
- develops and implements Krai target-oriented and inter-municipal programmes relating to environment protection and ecological safety, supervises their implementation;
- executes state environment protection control of the economic and other type of activity projects;
- brings persons guilty of environmental offense to administrative responsibility;
- prepares materials for commencing a suit before the trial court of general jurisdiction or /and arbitration court on the reimbursement for the damage caused to the environment through the environmental offense in compliance with the Rules of Procedure stipulated for in the Russian legislation;
- prepares draft agreements (contracts) with legal entities on nature protection activity financial support;
- participates in the organization of environmental education, enlightenment and raises environmental awareness of the residents within the Krai territory;

- organizes the development and implementation of the Primorsky Krai programmes aimed at the animal life and their habitat protection and management.

Department is entitled to terminate, suspend, or restrict the right of water body use, as well as any economic or other type of activity conducted with violations of the Russian Federation legislation.

Department makes decisions on the restriction, suspension or prohibition of the use of the Primorsky Krai water bodies on the grounds of a plea of the federal agencies of executive power in water resource use and protection management.

4.4. Non-Governmental Organizations

4.4.1. “Live Sea” Coalitions

“Live Sea” Coalition was started in 2001 to initially unite 9 non-governmental nature protection organizations from 6 maritime regions of Russian Far East. These are leaders of environmental movement in their regions – “Pilgrim” and “Environmental watch of Sakhalin” (Sakhalin), “Kaira Club” (Chukotka), “Independent Experts League” (Kamchatka), ISAR-DV, BROK, “Zov Taigi” (Primorsky Krai), “Sodeistviye” (Magadan), “Strazh Taigi” (Komsomolsk-on-Amur). Nowadays the Coalition unites about 200 environmental public associations and smaller local initiative groups.

From 2003 to 2006 the Coalition has been implementing three general programs – “SUMMER OF LIVE SEA”, “OIL AND SEA”, “SALMON AND SEA”.

“Summer of Live Sea” program. Hundreds kilometers of the Sakhalin, Primorye, Kamchatka, and Khabarovsk Krai coasts were covered by student and schoolchildren for the purpose of investigating pollution of coasts. Methods they used were developed by two researchers of ecology – Boris Preobrazhensky and Sergei Pervukhin. A new stage in the program is joint work with Sea Protection Institute, Maritime State University Academy named after Admiral G.I. Nevelskoy. Presently in the framework of this integrated program of coastal zone pollution with participation of the Sea Protection Institute “Live Sea” people study litter ashore, while the Institute staff studies the sea.

Among the coalition reliable partners are also schools and environmental circles in remote settlements of Sakhalinskaya Oblast, Khabarovsk Krai, Primorsky Krai. These are involved into intensive study of the coast in their vicinity and then pass the data to the nature protection controlling agencies.

4.4.2. “Alkor” Environmental Center

“Alkor” Environmental Center was registered in 2005 as a non-governmental organization committed to solving environmental problems of the region, developing environmental education and creating the public opinion in favor of environmental protection by means of “actual things done” approach. The Center has come into being thanks to cooperation with

ISAR-DV, Institute of Marine Biology of Far Eastern branch of Russian Academy of Science, "Zaliv Vostok" State Marine Wildlife Refuge (Zakaznik), local self-government.

On the basis of the "Let's Clean 'Zaliv Vostok' Wildlife Refuge Territory from Litter" project implementation it is planned to establish a partnership of the concerned agencies in order to solve the problem of "Vostok" Wildlife Refuge coastal territories by means of elaborating and introducing the technology for garbage segregated collection and recycling. The work under this project will be carried out by our members, Wildlife Refuge staff, beach leasers, Administration staff, as well as initiative youth and schoolchildren.

5. Specific Activities

During reforms in economy of Russia the attention to the ecological questions has essentially decreased. Till 1990s, there was a state monitoring system of pollution and clearing of ports water areas. This problem is facilitated by existence of one owner of all territories - the state. So far in port Vladivostok there are only some tens of organizations having the licenses for water use (ports, ship-repair factories, tank farms and so forth). As a result the water areas cleanliness has not been observed for a long time.

Research into Peter the Great Gulf shoreline pollution with litter that has been conducted for a number of years allows concluding that most of the litter is of local origin.

5.1. Coast sources of sea pollution

As the supervisions show, the most intensive superficial litter pollution is from the coast. The special concern is caused by plastic pockets and bottles found in the water areas of ports and on the shore. In many ways the intensive pollution of seawater area by plastic packing and bottles is caused by a strong wind which lifts this trash in the air and carries it in the sea. It is especially appreciable in the city area of the range on recycling waste which is located close to the coastal line. The litter left by tourists on the shore as well as consumption waste accumulating on the unauthorized landfill sites along the river banks also frequently gets in the sea. After the currents and wind, the litter is carried in the water area of the open sea or on the coastal line.

The storm water drain and the small rivers are also the pollution sources of coastal water areas with litter. It proceeds especially intensive during rains or spring thawing of snow.

In Primorsky Krai there are no large city rivers running into the sea. Ussuri river runs into Amur river. There will be a separate message about the problem of sea pollution through this river. Razdolnaya river does not have greater settlements on the coast but frequently it is enough serious pollution source of Amursky Bay. It was revealed at carrying out during the monitoring researches on its water area.

The litter quantity researches taken out in the sea by Tumannaya river were not spent because it has the status of the boundary river.

Therefore, one may arrive at a conclusion that the stress should be placed on waste management tasks:

- waste collection;
- waste storage site organization;
- waste utilization.

Harbor Waters Clean-up Issues

The existing practice of cleaning the water areas in ports is that each water-user is obliged to clean the water area of port that is not to pollute it, to eliminate litter and oil spills.

However, such differentiation of duties does not allow to concentrate resources for effective water area cleaning. That is why frequently it is more favourable to water-users to pay insignificant penalties instead of being engaged in litter and oil spills prevention on the water area. The situation develops in such a manner that in the near future the water area of ports will have one owner.

The situation is that soon there will be one owner of the water areas in ports.

Clearing of coastal line

The development of tourist business in Primorsky Krai on the one hand – it intensified the technical process in the coastal zone of Primorsky Krai, on the other hand – it stimulated the control over a sanitary state of beach zones by the commercial companies. These companies competing among themselves provide maintenance of the territories cleanliness. As a result, the coast became much purer, this fact was confirmed by the monitoring researches. Primorsky Krai administration realizes the program of "city territories accomplishments" which also promotes improvement of a sanitary state of coast in cities.

5.2. Primorsky Krai "Waste" Target-Oriented Programme for 2005-2011

The programme development is based on the following regulatory documents:

- Production and Consumption Wastes Law, Federal Law No. 89 dated June 24, 1998;
- Primorsky Krai Governor' Order "On the Implementation of the RF Production and Consumption Wastes Law in Primorsky Krai", No. 552 dated November 19, 1998.
- Governmental Customer of the Programme – Primorsky Krai Administration
- Coordinator for the Governmental Customer of the Programme – Committee on Natural Resources and Ecology, Primorsky Krai Administration

Objectives and Aims of the Programme

Development and implementation of a set of measures focused on:

- reducing the production and consumption wastes generation;

- ensuring ecologically safe production and consumption wastes disposal and processing, including accumulated production wastes posing a hazard to the environment;
- carrying out rehabilitation and assanation of the territories, degraded as a consequence of waste disposal;
- enhancing the efficiency of financial backing to the environment pollution response and cleanup.

Main Tasks of the Programme

- to establish the production and consumption wastes management system for Primorsky Krai;
- to conduct an overall inventory of the production and consumption wastes generated within the Primorsky Krai territory;
- to compile a Primorsky Krai production and consumption wastes cadastre;
- to design transportation management engineering schemes for the production and consumption wastes utilization and processing;
- to design a segregated collection and grading system for separate kinds of waste (solid consumption waste and the like);
- to implement pilot projects on the introduction of up-to-date production and consumption wastes processing and storage procedures;
- to construct waste burial facilities (landfills) satisfying the latest environmental hygiene requirements;
- to develop investment projects in production and consumption wastes utilization and processing coupled with identification of possible sources and required amounts of financial support;
- to conduct feasibility studies and justification of investments for constructing production and consumption wastes utilization facilities.
- The Programme has been implemented for one year. It is currently at the normative and design document development stage. No information is available on the Programme financing and execution of its separate items until present time.

5.3. Interdepartmental Commission Operation

At the end of 2005 an interdepartmental commission on the Peter the Great Gulf cleaning-up was established under the aegis of the Primorsky Krai Governor. The Commission united the representatives of the federal and Krai nature protection agencies, major water users, state administrations of sea ports, and the Navy. The Commission's top priority is organization of actions in cleaning the port of Vladivostok waters from oil, and from production and consumption wastes.

Taking into account the higher standing of the Commission members it is in many respects successful in organizing the routine clean-up in the Peter the Great Gulf harbor waters.

Presently the Commission is working out the program of actions for the nearest years, featuring the following priorities:

- organizing port waters pollution monitoring on a regular basis;
- identifying the major sources of port waters pollution;
- determining the basic principals of cleaning activity organization and financial backup;
- establishing a stricter control on the water user in compliance with the requirements of the Compulsory Regulations on sea ports and other regulatory documents.

In order to implement the top priority activities an annex to the "Waste" target-oriented programme has been developed envisaging the following actions.

- Water supply and sewage facilities reconstruction and development in the city of Vladivostok (sewage facilities);
- Construction of rainstorm run-off treatment plants in the city of Vladivostok;
- Construction of municipal solid waste landfill in the city of Vladivostok;
- Municipal solid waste landfill (in the area of Gornostai bay, Vladivostok) rehabilitation;
- Sunken ships recovery;
- Utilization of ships removed from service.

6. National Concerns and Efforts

As a summary one can enlist the following principal issues.

1. RF legislation is on the whole corresponding with international conventions and treaties.
2. Governmental institutions designed to control the ecological situation in near-shore seawater areas have obtained all the authorities to do so after the 2004 – 2005 administrative reforms took place.
3. RF system of sea water area protection from pollution is being reconstructed under the different economic and political conditions.

Serious problems in the sea prevention from pollution persist at the local level. Most of them are building up in the course of many years and can be reduced to the following:

- lax control of pollution sources, and, hence, impossibility of raising reasoned claims to the guilty parties;
- incomplete employment of market mechanisms when organizing water areas and shoreline cleaning from marine litter operations;

- poor introduction of modern water areas cleaning procedures into practice.

Many of the above issues result from local budgets' poorness. Besides, the practice of legal actions against the guilty parties isn't commonly used which prevents the environmental action financial sources from being replenished.

7. Facilitation from the NOWPAP Side

Other nations' experience, NOWPAP nations in the first, might be helpful for facilitating the system of protection the sea from pollution in the Russian Far East. The following items of primary interest:

1. Local regulatory documents, securing sea pollution prevention, port and municipal administrations' authorities.
2. Orders, sources, and estimated amount of the sea protection from pollution system.
3. Organization of pollution monitoring and identification of the guilty parties.
4. Law of practice in the field.

Techniques applied when removing pollution from the sea surface and the sea bed.

A series of exhibitions and conferences devoted to the sea water areas prevention from pollution are likely to be the most suitable way of experience exchange in this issue.

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