

# **NAUTILUS FRAMEWORK PAPER:**

## **U.S.-Japan Policy Initiatives on Energy-Related Marine Issues in the Sea of Japan/East Sea**

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## ABSTRACT

This paper was designed to provide a framework for discussions at the July 1998 ESENA workshop in Tokyo, Japan on appropriate and feasible U.S.-Japan policy initiatives which address oil-related marine issues in the Sea of Japan/East Sea. The paper defines the context for the workshop, delineates some U.S. marine interests in the region, and describes existing international marine regimes, programs and cooperative activities pertinent to the Sea of Japan/East Sea region.

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## **1. Introduction**

On 11-12 June 1998 the first National Ocean Conference in the United States was held in Monterey, California. The conference was attended by President Clinton, Vice-President Gore, and four Cabinet Secretaries. One of the keynote speakers, Silvia Earle, author of the noted book *Sea Change* and former chief scientist for the National Oceanic and Atmospheric Administration (NOAA), predicted the conference would be a turning point in ocean protection in the United States: “Never before have the highest officials in this country...come together to focus on ocean issues...Never before have the oceans been such a high priority.”

The year first National Ocean Conference is not the only event drawing attention to the plight of the world’s oceans. The year 1998 was designated the Year of the Ocean by the United Nations. Coordinated by UNESCO, the United Nations seeks “to create awareness and obtain commitments from governments to take action, provide adequate resources and give the priority to the ocean and coastal areas which they deserve as finite economical assets.” Another event drawing attention to oceans is the 1998 World’s Fair in Lisbon, Portugal—Expo ’98—is dedicated to the preservation of the world’s oceans.

Our ESENA Project workshop on energy-related issues in the Sea of Japan provides an opportunity to build upon the success of the first National Ocean Conference in the US and the growing awareness around the world of the threats to the world’s oceans. In particular, the workshop seeks to put into action the spirit of the Year of the Ocean and the National Oceans Conference through the development of a concrete set of recommendations for joint U.S.-Japan policy initiatives to protect the marine environment in the Sea of Japan/East Sea from energy-related pollution.

This paper is designed to provide a framework for our workshop discussions on appropriate and feasible U.S.-Japan policy initiatives. The Nautilus Institute and the Center for Global Communications (GLOCOM) have brought together a distinguished group of scholars, policymakers, representatives of the U.S. and Japanese navies, and other interested parties to engage in a dialogue over mutual concerns of the U.S. and Japan on energy-related marine issues in the Sea of Japan/East Sea region. The principal outcome of the workshop will be recommendations on joint courses of actions that the two countries can undertake to address their mutual concerns and promote international cooperation in the region. After the workshop the recommendations will be brought to the attention of various government agencies in Japan and the United States and to the mass media.

## **2. The ESENA Project**

This workshop is one component of the Nautilus Institute and GLOCOM’s ESENA Project. The Energy, Security and Environment in Northeast Asia (ESENA) Project’s mission is to analyze the nexus of energy, environmental, and security issues surrounding energy use in Northeast Asia, and to develop recommendations for joint U.S.-Japan regional policy initiatives oriented toward realizing a sustainable and secure energy future in the region.

The ESENA Project is a collaborative effort between the Berkeley, California-based Nautilus Institute and the Tokyo-based Center for Global Communications (GLOCOM) at the International University of Japan. Funding for the Project is being provided by the U.S.-Japan Foundation and The Japan Foundation's Center for Global Partnership.

The ESENA Project is a three-year effort (1996-1999). During its three years, the project has investigated/will investigate three different energy-related issue-areas in Northeast Asia, as follows:

Year 1 – transboundary air pollution (acid rain)

Year 2 – regional seas marine issues

Year 3 – innovative financing instruments for sustainable energy investment in China.

The original motivation for initiating the ESENA Project was the belief that Northeast Asia faced a dilemma in its choice of energy strategies. It was believed that in the coming decades, rapid economic growth would drive a massive increase in energy demand. Although the current financial crisis in Asia (and increasingly the rest of the world) has damped energy growth throughout the region, Northeast Asia nevertheless continues to face dilemmas in its energy futures. Even if Asia rebounds only slowly from its financial slump, the critical issues being explored by the ESENA Project remain. In particular, the primary projected strategies to meet energy demand—expansion of (dirty) coal, imported oil, and nuclear power—are problematic on both environmental and security grounds. The ESENA Project is seeking alternative ways to mitigate the detrimental environmental and security impacts of present strategies. Ultimately, the ESENA Project aims to promote energy development in the region that will be sustainable on both environmental and security grounds. Two fields of study which underlie much of the ESENA Project work are “energy security” and “environmental security.”

### **3. Context for the ESENA Marine Workshop**

The specific context for the ESENA workshop on energy-related marine issues in the Sea of Japan/East Sea can be described by means of answering three questions: Why is this workshop focusing on *energy* issues?; Why is it focusing on energy-related *marine* issues?; and Why is it focusing on the *Sea of Japan/East Sea* to the exclusion of other Northeast Asian regional seas?

[Before continuing a word must be said on the name of the regional sea which lies between Japan and the east coast of the Korean Peninsula and the southeast coast of Russia. The sea is most commonly referred to as the “Sea of Japan.” However, North and South Koreans refer to it as the “East Sea.” The issue of the name of the sea is highly contentious between the Koreans and Japan. In deference to both parties in this controversy the name of the sea when used in the text up to this point was referred to as Sea of Japan/East Sea. From hereon it will simply be referred to as the Sea of Japan. This does not imply, however, that the Nautilus Institute has taken a stand on the proper naming of the sea.]

**Why focus on energy?** In the world of international relations, energy is a “high politics” issue. In other words, energy is a resource that almost all countries of the world devote significant amounts

of political, economic, and military effort to securing. In stark *realpolitik* terms, energy is one of only a handful of issues nations will go to war over.

Energy is a critical issue in Northeast Asia. First, future growth in energy demand in the region most likely cannot be met from supply in the region. This seems especially true of demand for oil. Future growth in energy demand in China, in particular, will require imports of fuel from outside the region. Second, competition for energy supplies, particularly oil, will almost certainly tighten in the near-term future, especially if there are interruptions in the market. Third, barring unforeseen new discoveries or technological breakthroughs, Northeast Asia's dependence on oil imports from the Persian Gulf will increase from about 75% today to over 90% within two decades. And fourth, two of the key countries of Northeast Asia—Japan and South Korea—are almost totally dependent on imports for virtually all their conventional fuels (coal, oil, and natural gas). This makes them highly vulnerable to disruptions in the delivery systems for these fuels.

Given that energy is such a critical issue in Northeast Asia, factors that affect energy exploration, transportation, conversion, and/or consumption may, depending on their importance in the overall energy picture, become critical items demanding policymaker's attention. One "factor" that affects, and is affected by, energy issues is the marine environment.

This brings us to the second question which sets the context for our workshop: **Why focus on energy-related marine issues?** At present, two broad sets of energy-related marine issues of international scope that are highly relevant in the Sea of Japan region: 1) navigation safety and sea lines of communication (SLOC) issues, and 2) environmental protection issues.

SLOC issues are intimately related to security issues. In Northeast Asia, energy-related SLOC issues revolve primarily around protection of sea corridors for transport of oil from the Middle East. Given the dependence of Northeast Asia on Middle East oil, little needs to be said as to why safe transport of Middle East oil is a central military and political concern of the countries of Northeast Asia. Even though at this point in time the Sea of Japan is not the locus of major oil-related SLOCs, SLOC issues, especially in the straits between South Korea and Japan, are of important matters of concern in the region. Linked to SLOC issues, especially in the straits between South Korea and Japan, are also issues of navigation safety.

Environmental protection issues, while not generally accorded the importance of SLOC issues in government policy circles, are nevertheless receiving increased attention. They are receiving attention in two ways in the Sea of Japan. First as an ecological issue (for instance, concern over the *isoyake* or sea desert phenomenon), and second as a security and freedom of navigation issue (for instance, "creeping jurisdiction" as states expand their zone of jurisdiction to protect their coastal environment). Besides those just mentioned, other environmental protection concerns in the Sea of Japan include risk of oil spills, risk of accident from ocean transport of nuclear waste, runoff of energy-related waste from land-based activities, port management practices in the handling of oily wastes from ships, and dumping of nuclear wastes in open seas.

The Sea of Japan is a relative "backwater" of Asian regional seas. Therefore, in this workshop, **Why focus on the Sea of Japan?** There are several reasons why a focus on the Sea of Japan is critical at this time.

First of all, the Sea of Japan is a relatively unspoiled regional sea and therefore is a prime candidate for preservation. Action can be taken now so that the Sea of Japan does not become a “dead sea” like the Yellow Sea. (In a move designed to bring attention to the plight of the Yellow Sea, the South Korean government recently declared the Yellow Sea a “dead sea.”)

Second, the Sea of Japan, though a site of tension during the Cold War, is currently in a politically quiescent state, and therefore is a prime candidate for exploring avenues of multilateral cooperation among the littoral states. The littoral states of the Sea of Japan include Japan, the Russian Federation, the Democratic People’s Republic of Korea (DPRK), the Republic of Korea (ROK), and China by virtue of the Tumen River whose watershed encompasses Chinese territory and which may provide China with access to the Sea of Japan. The Sea of Japan region may be an easier arena for facilitating cooperation among the littoral states as compared to the more contentious regions around the Yellow Sea, East China Sea, and South China Sea.

Third, significant development is expected to take place in the Sea of Japan region in the near-term future. The Russian Far East, the west coast of Japan, the southeastern coast of the ROK especially around Pusan and Ulsan, the east coast of the DPRK, and the Tumen River basin are all being developed, are poised for development, or have the potential to be a site of major development. If “sustainable development” measures are incorporated into development plans in the region in the early phases of development (such as is being attempted in the Tumen River watershed) the worst by-products of development may be avoided.

Fourth, at present there are no multilateral political institutions and few political arrangements which include all the states in the Sea of Japan region. As one of our workshop participants, Mark Valencia, puts it: “In few other semi-enclosed seas are multilateral measures for marine pollution control as deficient as those in the Sea of Japan.”<sup>1</sup> There are, for instance, no multilateral cooperative scientific efforts which simultaneously involve all Sea of Japan countries; no fora where all Sea of Japan fishing nations can meet to discuss the distribution of catches; and no regional emergency response mechanisms in place to deal with oil spills.

As compared to other regional seas in Northeast Asia—Yellow Sea, East China Sea, and Sea of Okhotsk—the Sea of Japan involves all the major political actors in the region, and, for the reasons outlined above, seems to offer the best prospects for a joint U.S.-Japan initiative that would encourage the process of multilateral confidence-, capacity-, and institution-building in the region.

#### **4. U.S. Interests in the Sea of Japan Region**

Given that the goal of our workshop is to develop a set of recommendations for joint United States-Japan policy initiatives on energy-related marine issues in the Sea of Japan, it is logical to ask: What are the interests of the United States in this area? Why should the United States bother to get involved in policy initiatives in the relatively “remote” Sea of Japan region?

There are several domains in which U.S. interests intersect with Sea of Japan energy-related marine issues. These include trade, security, and environmental interests.

## (1) Maritime Shipping in Northeast Asia

There are significant economic and strategic implications for the United States to the current trend of increasing volume of maritime shipping and trade in the sea lanes of Asia. Although the geographical pattern of Asian trade in the past two decades has been a steady rise in intra-regional trade, inter-regional trade, especially between Asia and the advanced industrial nations of the West, remains a vital component. Anything that disrupts the flow of goods between the United States and its trading partners in Asia can be seen as a blow to U.S. interests. The U.S., therefore, has a stake in working to establish a system of smooth, safe, and sustainable maritime shipping practices in Asia in general, and Northeast Asia in particular.

Marine transport is conventionally divided into three major categories: dry bulk, liquid bulk, and general cargo. Of these, as far as the United States is concerned, marine transport of liquid bulk cargoes of crude oil from the Middle East to Northeast Asian nations constitutes the most politically significant type of cargo carried through Northeast Asian regional seas. Anything that interrupts the marine transport of oil to strategic states in Northeast Asia could dramatically affect U.S. interests in the Asian region. Although at present very little crude oil or petroleum product trade traverses the Sea of Japan, future industrial development (leading to increased imports) or future energy resource exploitation (leading to increased exports), could make the Sea of Japan region a hot spot for the problems and risks associated with marine transport of oil. Therefore, it can be argued that the U.S. has a vested interest in encouraging and supporting measures that will ensure the safety and sustainability of marine transport of oil in the region, and has a vested interest in encouraging and supporting measures which address problems before they arise.

## (2) Freedom of Navigation

The United States has a powerful interest in protecting traditional freedom of navigation and maintaining safe navigation practices in Asian waters. This stems from not only its naval and military concerns, but also its free trade and economic concerns. The United States has, for instance, declared in the Spratley Islands dispute between China, Vietnam, and the Philippines that freedom of navigation is “a fundamental interest” of the United States.<sup>2</sup>

Currently, threats to freedom of navigation and security in the Northeast Asian region stem more from non-military than military sources. Non-military threats include natural disasters, accidents, piracy, and “creeping jurisdiction” of regional states (in other words, extending the zone of coastal jurisdiction of a nation for safety, anti-pollution, or other reasons).

While the most immediate threats seem to stem from non-military sources, there remain threats that, if realized, could spill over into armed conflict in the region. Such military sources of threat include: 1) a coastal state’s interdiction of navigation through attempts to control freedom of passage for national security reasons (a real threat in the Sea of Japan during the Cold War); 2) domestic instability in coastal states (a possibility in the DPRK); and 3) contention among neighboring countries regarding overlapping maritime claims (a distinct possibility in territorial disputes over islands or in disputes over Exclusive Economic Zone boundaries).

In sum, the United States has a vital interest in keeping potentially volatile freedom of navigation and security issues from erupting into conflict. The Sea of Japan may be a region offering a prime test site for instituting marine-related cooperative security and freedom of navigation arrangements.

### (3) U.S. Oceans Policy

At the National Ocean Conference in Monterey, California, President Clinton and Vice President Gore launched a series of major initiatives to explore, protect, and restore vital ocean resources in the United States, and proposed spending an additional \$224 million through 2002 on their initiatives. President Clinton proposed building a “comprehensive oceans agenda for the 21<sup>st</sup> century,” and directed his Cabinet to report back to him in one year (by June 1999) with recommendations for a “coordinated, disciplined, long-term federal oceans policy.” He also stated he wants to work with the Congress to create an oceans commission to aid in forging an ongoing oceans strategy.

While all of the initiatives announced at Monterey were domestically oriented, we at this workshop have a golden opportunity to have our voices heard in expanding the Clinton administration’s domestic initiatives into the international realm, and demonstrating that domestic goals can not be met without also tackling larger international goals. We at this workshop can build a case as to why the United States should expend a fraction of its ocean-related resources in promoting scientific, technical, economic, and military cooperation in an area like the Sea of Japan.

### (4) Maine Environmental Protection

The United States has an abiding interest in helping protect the world’s oceans. The future of human civilization is vitally dependent on the condition of the world’s oceans. The U.S. as the most scientifically and technologically advanced nation in the world, as the sole remaining super power, and as one of the largest polluters affecting the marine environment, virtually by default incurs an obligation to help less politically stable and economically viable regions of the world address marine issues. The Sea of Japan is one area where, in conjunction with Japan, it can demonstrate environmental leadership on ocean issues.

## **5. Existing Regimes, Programs, and Activities in the Sea of Japan Region**

To get an idea of what joint U.S.-Japan joint policy initiatives might be most effective in the Sea of Japan region we need to have an idea of what is already happening in the region. Below is a list of various international regimes, programs, and activities which touch on the Sea of Japan region.<sup>3</sup> This list is not exhaustive. Each item in the list is explained in either Appendix 1 (International Regimes and Cooperative Activities) or Appendix 2 (U.S.-Japan Cooperative Activities).

1. United Nations Convention of the Law of the Sea (UNCLOS)
2. Agenda 21
3. International Maritime Organization (IMO) Treaties

4. London Dumping Convention
5. Montreal Guidelines on Land-Based Marine Pollution, and, the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities
6. APEC Action Plan for Sustainability of the Marine Environment
7. Northwest Pacific Action Plan (NOWPAP)
8. Tumen River Area Development Programme (TRADP)
9. Scientific research under the Working Group for the Western Pacific (WESTPAC), and the North Pacific Marine Science Organization (PICES)
10. UNDP/GEF Program on Prevention and Management of Marine Pollution in East Asian Seas
11. A web of nine (9) bilateral fisheries agreements.

Specific U.S.-Japan activities include:

1. US-Japan Cooperative Program in Natural Resources (UJNR)
2. US-Japan Common Agenda.

From the above list we can discern that the main international organizations already involved in the Sea of Japan region include: the International Maritime Organization (IMO), the United Nations Environment Programme (UNEP), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), and the United Nations Development Programme (UNDP).

## **6. Framework for Workshop Discussion**

Our task in this workshop is to devise a set of recommendations for U.S.-Japan policy initiatives which address either directly or indirectly energy-related marine issues in the Sea of Japan. In this section, a framework to guide our thinking about possible joint initiatives in the Sea of Japan is presented. This section, and the paper as a whole, is not intended to dictate what proposals are to be considered or not considered. It is intended to lay a foundation for discussion. The content of what is discussed below has come out of a similar ESENA workshop held in December 1997 in Berkeley, California, papers which were commissioned as part of the ESENA Project, and discussions with various experts.

To frame our discussion at this workshop, we can ask three questions related to three tiers of potential policy recommendations:

1. What overarching objectives should the U.S. and Japan pursue relative to energy-related marine issues in the Sea of Japan?

2. What types of issues are most important for the U.S. and Japan to address relative to energy-related marine issues in the Sea of Japan?
3. What specific programs or activities should the U.S. and Japan establish relative to energy-related marine issues in the Sea of Japan, and how should they be implemented?

The first question addresses the “top” tier of policy concerns, namely the “big picture” goals and motivations for joint action by the United States and Japan in the Sea of Japan. **What overarching objectives should the U.S. and Japan pursue relative to energy-related marine issues in the Sea of Japan?** Should the United States and Japan, for instance, work toward any of the following:

*Establishment of a multilateral organization to deal with multiple issues*

Should the U.S. and Japan seek to establish a multilateral organization (perhaps like ASEAN) in the Sea of Japan region? Such an organization would tackle more than marine issues, but just as in ASEAN, marine issues might be a central focus of discussion and cooperation.

*Establishment of a SLOC security regime in Asia which would include Northeast Asia and the Sea of Japan region*

SLOCs are economic lifelines. Should the U.S. and Japan seek to establish a SLOC security regime? The proposed *Guidelines for Regional Maritime Cooperation* (December 1996) of the Maritime Cooperation Working Group of the Council for Security Cooperation in the Asia Pacific (CSCAP) states explicitly that one of the objectives in the region is to “help promote a stable maritime regime in the region with the free and uninterrupted flow of seaborne trade.”<sup>4</sup>

*Establishment of a formal marine environmental protection regime for the Sea of Japan*

Should the U.S. and Japan seek to establish a marine environmental protection regime for the Sea of Japan? The regime would, among other tasks, collect data on environmental conditions, marine and coastal resources, flows of vessels and incidents involving ships, domestic laws and practices, and oil spills, oily waste disposal practices.. Such data would be used to cooperatively manage the marine environment of the Sea of Japan.

The above three examples are only a sampling of the types of overarching objectives that the U.S. and Japan could pursue through joint policy initiatives. Are there others?

A second tier of policy concerns can be approached by asking the question: **What types of issues are most important for the U.S. and Japan to address relative to energy-related marine issues in the Sea of Japan?** Based on the earlier ESENA workshop in Berkeley, California in December 1997, the following areas were judged by the participants to be the most significant. They are presented more or less in order of priority.

1. Monitoring and Assessment

At present there is no collective and coordinated monitoring by all nations in the Sea of Japan. The type of monitoring that is most needed at this time is “state of the system” monitoring. In other words, monitoring the present condition of the Sea of Japan. This is a first step in management of Sea of Japan. Monitoring the state of the system includes monitoring of the water column and sediments in relation to materials or pollutants known to result in problems; monitoring the presence, absence, and/or condition of indicator species; and monitoring of pollutant loads in the tissues of various species. The scientific and technical knowledge gathered by monitoring activities is necessary to enforce legal prescriptions. It is a preliminary step needed to put teeth into the vaguely-defined legal frameworks of UNCLOS or the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities.

## 2. Ecological Coastal Zone Management

Integrated coastal zone management (ICZM) is essential to ecological preservation of the Sea of Japan. One element of ICZM is control of land-based sources of pollution. One workshop participant has stated: “[c]ontinuous pollution from land-based sources is at present the single most important threat to the Sea of Japan marine environment.”<sup>5</sup> The littoral states of the Sea of Japan, with the exception of Japan, practice only rudimentary coastal zone management. Even in Japan's case, the approach to coastal zone management has been more an engineering rather than an ecological approach. (Of Japan's total length of the coastline—35,000 kilometers—about one-half requires protection from a variety of natural threats such as typhoons, tsunamis, and erosion. Structures have been built along about two-thirds of this portion. Thus it is not an exaggeration to say that Japan's coastline is essentially an artificial coastline.) The U.S. has a strong base of experience in ecological coastal zone management, especially in California. A joint U.S.-Japan policy initiative might focus on encouraging ecological coastal zone management in the Sea of Japan.

## 3. Emergency (oil spill, nuclear accident) Response Mechanisms

Even though open ocean pollution from oil constitutes only 10-20% of all ocean pollution (coastal and land-based pollution constitutes the other 80-90%), and oil spills constitute only 10-20% of open ocean pollution (dumping of oily wastes constitutes the other 80-90%), the dread of the potential impacts of catastrophic oil spills is a major driver of public opinion and of policy action on environmental protection of oceans, especially along coastal areas. If Sea of Japan nations act now to institute a regional oil spill response mechanism, this may prevent future ecological and public relations disasters.

Oil spills have occurred in the Sea of Japan (for instance, the January 1997 *Nakhodka* spill off Fukui Prefecture), and will likely occur with greater frequency in the future. The *Nakhodka* spill clearly demonstrated that Japan and the Sea of Japan countries are not prepared to deal with catastrophic oil spills. Thus, there is need for an oil spill response mechanism.

The region is already aware of this need, though, as exemplified by efforts such as: a) the exchange of information under the US-Japan Cooperative Program in Natural Resources (UJNR); b) discussion at a UNEP regional seas seminar in March 1997 in Tokyo which included participants from Japan, China, ROK, and Russia; c) cooperation on oil spill mitigation under the

U.S.-Japan Common Agenda; and d) attempts to devise a regional response mechanism at NOWPAP-sponsored workshops.

#### 4. Navigation Safety & SLOCs

The Sea of Japan “may provide a model area for whatever forms of ship management emerge in safe navigation. It is an area where most of the elements that require vessel management are found: narrow sea areas and island-fringed coastlines, intensive fishing activity combined with merchant shipping, and uncertain weather with poor visibility.”<sup>6</sup> One of the papers commissioned for the ESENA Project, “A Vessel Traffic System Analysis for the Korea/Tsushima Strait” by Linda Paul of the Ocean Law & Policy Institute, advocates a Traffic Separation Scheme (TSS) for the strait.

#### 5. Uniform Port Waste Management Practices

The disposal of oily wastes by ships is an issue of concern in Asia. Under the Tokyo Memorandum of Understanding on Port State Control signed in December 1993, Asia Pacific nations are allowed to inspect ships calling at their seaports for compliance with safety condition of the ships, including inspecting record books on the disposal of oily wastes and proper certification of the crew. However, implementation is hindered by obstacles such as lack of equipment and training. Japan’s implementation is the strictest of any Pacific Asia nation.

At the National Ocean Conference in Monterey, President Clinton announced a “ports for the 21<sup>st</sup> century” plan in which the administration seeks to modernize U.S. ports, one aspect of which is instituting pollution control measures. The program is to be financed by a proposed new Harbor Services Fund, and would raise \$800 million over the next five years. It is possible that a joint U.S.-Japan initiative could emerge from Japan’s desire to modernize port management in Asia and the United States’ desire to modernize its own port practices and facilities.

*Areas Not Considered by the Workshop.* Before we turn to a discussion of specific policy measures, it should be noted in passing that not all problems in the Sea of Japan marine environment are energy related, and that not all energy-related problems are being addressed by the workshop. Some of the main non-energy-related issue-areas in the region include maritime territorial disputes (for instance, the Japan-ROK dispute over Tokdo/Takeshima island), over-fishing, ocean dumping of industrial and municipal wastes, red tides, uncertain jurisdiction due to the lack of agreed Extended Economic Zones in the Sea of Japan, and pollution due to heavy metals, organic contaminants, and plastic wastes. Some energy-related marine issues not actively considered in the workshop include ocean dumping of radioactive wastes and transport of nuclear waste. The workshop is focusing on oil-related marine issues.

A third tier of policy concerns can be approached by asking the question: **What specific programs or activities should the U.S. and Japan establish relative to energy-related marine issues in the Sea of Japan, and how should they be implemented?** Examples of programs/activities which have been mentioned by ESENA participants include:

1. Creating a Sea of Japan mussel watch program

Mussels are a “sentinel organism” that can be used to monitor chemical contaminants in coastal marine waters. The U.S. has the most advanced mussel watch program in the world. The program, run by NOAA, is in its 11<sup>th</sup> year. There is also an International Mussel Watch program funded by the International Oceanographic Commission (IOC) of UNESCO, in collaboration with UNEP and NOAA. There have been attempts to establish an Asian mussel watch program but it has not yet gotten off the ground. The U.S. and Japan could join together to establish a mussel watch monitoring program in the Sea of Japan.

## 2. Instituting a Traffic Separation Scheme (TSS) for vessels in the Tsushima/Korean Straits

The Malacca Straits TSS was established after a major oil tanker accident. The Sea of Japan nations have an opportunity to establish such a scheme before an accident occurs. The U.S. and Japan could jointly encourage a cooperative platform for discussion of such a scheme between Japan and the ROK. The above-mentioned paper by Linda Paul advocates establishing such a TSS.

## 3. Designating the Sea of Japan a Special Zone like the Mediterranean Sea

For environmental protection reasons, the U.S. and Japan could pursue establishment of Special Zone status for the Sea of Japan with stringent control of both ship- and land-based sources of pollution.

## 4. Developing a Sea of Japan oil spill contingency plan

ASEAN has such a plan. There is an East Asian Response Limited (EARL) mechanism which is a privately established facility located in Singapore to deal with Tier I oil spill incidents in the region extending from the African east coast to Northeast Asian waters, but not including the Sea of Japan. The U.S. and Japan could work to develop an oil spill response mechanism for the Sea of Japan region.

## 5. Other ideas

Other ideas which have been suggested include promoting exchanges of information, establishing training programs, sharing technology, increasing openness and transparency, engaging in environmental education on the marine environment, and promoting enhanced awareness of marine issues in the region.

The above list of suggestions for possible U.S.-Japan joint policy initiatives in the area of energy-related marine issues in the Sea of Japan is meant to stimulate thinking. During the workshop we will engage in small group and large group discussion to develop a set of feasible recommendations. In conclusion, the questions we want to keep in mind as we search for possible candidates for joint policy initiatives are the following:

Is the initiative energy (oil) related?

Is it Sea of Japan related?

Is it appropriate for the U.S. and Japan to jointly promote this initiative?

What is the “hook” for US involvement?

Will it promote regional cooperation?

Will such cooperation encourage the region toward a path of secure and sustainable energy?

## **Appendix 1: International Regimes and Cooperative Activities Pertinent to the Sea of Japan**

### (1) UNCLOS

The United Nations Convention on the Law of the Sea (UNCLOS), or simply, Law of the Sea, is the international “constitution” for ocean governance. It is a global umbrella framework for developing coherent national marine policies, and for nations to build cooperative marine environmental protection regimes. UNCLOS has a long and complicated history extending back to 1958 when the first Law of the Sea conference was held. In 1973 the third conference took place and after nine years of negotiating an agreement was reached in 1982. UNCLOS is a massive document and contains 320 articles covering virtually all ocean issues. It is a primary vehicle to establish international norms for ocean governance. One of the key accomplishments of UNCLOS was to legitimize the concept of the 200-nautical-mile Exclusive Economic Zone (EEZ) while at the same time protecting most navigational freedoms and establishing 12 nautical miles as the maximum width of territorial seas.

As far as environmental protection is concerned, it is generally accepted that Part XII of UNCLOS—Protection and Preservation of the Marine Environment—is the strongest and most comprehensive global agreement ever negotiated on the marine environment. It is significant for at least two reasons. First, it states that all nations have a general obligation to protect and preserve the marine environment, as well as a duty to enforce international regulations to protect the marine environment from all sources of pollution. Second, it places parties to the Convention under an obligation to enforce generally accepted international rules and standards established in other maritime conventions, such as those negotiated under the auspices of the International Maritime Organization (IMO), even if they are not parties to such conventions. Regarding semi-enclosed seas like the Sea of Japan, UNCLOS exhorts all states bordering semi-enclosed seas to harmonize their environmental protection policies. The United States has not yet ratified UNCLOS.

### (2) Agenda 21

Agenda 21 is a 40-chapter action plan adopted at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. Agenda 21 was intended as a roadmap for the implementation of the concept of sustainable development in the 21<sup>st</sup> century. Chapter 17 of Agenda 21 (Protection of the Oceans, All Kinds of Seas, Including Enclosed and Semi-Enclosed Seas, and Coastal Areas and the Protection, Rational Use and Development of Their Living Resources) is the section which addresses ocean and coastal management. It is repeatedly stated in Chapter 17 that it builds on and refines UNCLOS, rather than supplants it. However, nowhere in the Chapter is there explicit statement of how exactly the Chapter relates to or refines the treaty. The seven major programs discussed in Chapter 17 are: 1) integrated

management and sustainable development of coastal areas, 2) marine environmental protection, 3) sustainable use and conservation of living marine resources of the high seas, 4) sustainable use and conservation of living marine resources under national jurisdiction, 5) critical uncertainties in management of the marine environment and climate change, 6) strengthening of international cooperation and coordination, and 7) sustainable development of small islands.

(3)

#### IMO Conventions

The International Maritime Organization (IMO) is a United Nations organization which has traditionally been concerned with matters related to shipping, vessel-source pollution, safety at sea, and ocean dumping of wastes. All nations in the Sea of Japan region belong to the IMO; however, the level of participation and implementation of IMO treaties varies greatly among the countries. For instance, of the 13 IMO treaties which focus specifically on pollution prevention from ships, Russia subscribes to ten (10), Japan eight (8), China five (5), South Korea two (2), and North Korea one (1) and parts of another.

(4)

#### London Dumping Convention

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention, or LDC) was adopted in London in 1972 soon after the famed United Nations Conference on the Human Environment held in Stockholm in the same year. The LDC established the first global standards on the dumping of wastes into oceans. China, Japan, and Russia are parties to the LDC, but the ROK and DPRK are not.

(5)

#### Montreal Guidelines, and, Global Programme of Action for the Protection of the Marine Environment from Land Based Activities

It is well known that most of the major threats to the health and productivity of the marine environment result from human activities on land. Wastes from industrial, municipal, and agricultural activities, as well as run-off, are transported to the marine environment through rivers and watersheds. Yet even though the effects of land-based activities are known, how to use this linkage to actively reduce the degradation of the marine environment has not, until recently, received sufficient recognition. The first effort to address land-based sources of pollution was the Montreal Guidelines for the Protection of the Marine Environment Against Pollution from Land-Based Sources adopted in 1985.

Building on the Montreal Guidelines and growing out of the work and momentum of UNCED, in 1995 UNEP convened a conference in Washington, DC on land-based sources of marine pollution. The conference adopted the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-Based Activities. The GPA is a major initiative addressing the relationship between land-based activities and the degradation of the marine environment. This recognition is a major accomplishment since the effects of land-based activities on the marine environment are complex, and more importantly, rarely addressed in an integrated and

comprehensive way. The major benefits of the GPA include: recognition of the need for integrated management, establishment of a framework which suggests actions to be taken, acknowledgment of the need for a flexible approach for implementation, and encouragement of participation by industry and non-governmental organizations (NGOs). Taken together these elements emphasize the fact that in order to reduce pollution in the marine environment actions must be taken upstream, beyond the coastal zone, and include stakeholders. The main objective of the GPA is to encourage local and national authorities in addressing the impact of land activities on the marine environment.

(6)

APEC Action Plan for Sustainability of the Marine Environment

The Asia Pacific Economic Cooperation (APEC) Forum's environment ministers began work on a regional environmental strategy in 1994. Marine pollution was among the topics discussed. Two documents were issued in that year. The first was an APEC Environmental Vision Statement. The second was a Framework of Principles for Integrating Economy and Environment in APEC. Marine-oriented environmental initiatives and objectives of APEC's working groups begun at this time included technical exchange on red tide/toxic algae; compilation of national reports on land-based sources of pollution, coastal zone management policies, and responsible national agencies; and coordination and networking with other organizations in the APEC region to pursue Chapter 17 recommendations of Agenda 21.

In a 1996 APEC Ministers meeting, sustainability of the marine environment was identified as one of three principal themes demanding action within APEC (the other two were sustainable cities, and clean production systems). Subsequently the Marine Resources Conservation Working Group developed an Action Plan for Sustainability of the Marine Environment. The Action Plan elaborates goals and activities necessary to achieve a vision of clean oceans. Specifically, the three key objectives are 1) integrated approaches to coastal management, 2) prevention, reduction, and control of marine pollution, and 3) sustainable management of marine resources. The three central tools to achieve these objectives are 1) research, exchange of information, technology, and expertise, 2) capacity building, training, and education, and 3) public and private sector participation and partnership. The Action Plan establishes mechanisms for coordination, periodic review, and updating, and links with other multilateral organizations and domestic agencies concerned with sustainability of the marine environment within the APEC region. The Action Plan is meant to complement other international and global marine environment initiatives.

(7)

NOWPAP

The UNEP-sponsored Northwest Pacific Regional Action Plan (NOWPAP) for the Protection, Management and Development of the Marine and Coastal Environment was adopted in 1994 by the DPRK, Japan, China, ROK, and Russia. The Northwest Pacific region is defined to cover the Yellow Sea and the Sea of Japan. Action under the auspices of NOWPAP to date has been minimal, and is further evidence of the difficulty of establishing multilateral regimes in Northeast Asia. There has been discussion of establishing Regional Activity Centres (RACs) on monitoring in Russia, on marine pollution preparedness and response in the ROK, and on marine information

and data in China, but not of these RACs have been approved. There have also been regional seminars on such topics as oil spill response (March 1997 in Tokyo). At the most recent meeting in April 1998 in Vladivostok, discussion became bogged down on financial arrangements for NOWPAP.

(8)

#### Tumen River Area Development Programme (TRADP)

The United Nations Development Programme (UNDP)'s TRADP is perhaps the most advanced of the several regional development activities to include a strong environmental component. It may establish important legal and political precedents that will influence other regional environmental agreements. Of marine related impacts it considers industrial waste, sewage, hydrocarbon emissions, and sediment from erosion.

(9)

#### Scientific Research

There are at least two major scientific programs which cover the Sea of Japan region—WESTPAC and PICES.

The 10-nation Working Group for the Western Pacific (WESTPAC) was established by UNESCO in 1977 to plan and coordinate multilateral ocean science programs. WESTPAC has focused on intercalibration exercises in collaboration with the Global Investigation of Pollution in the Marine Environment (GIPME) and the International Oceanographic Commission (IOC)'s Group of Experts on Methods, Standards, and Intercalibration (GEMSI). The goals of WESTPAC are: 1) to define regional problems and develop marine scientific research programs, 2) to implement IOC global marine scientific research programs at a regional level, and 3) to facilitate the regional exchange of scientific data, especially to developing countries. The organization involves scientists only, and progress in achieving its goals has been slow.

The North Pacific Marine Science Organization (PICES) is similar to WESTPAC. Its activities include exchange of data and information, development of common assessment methodologies and monitoring techniques for marine pollution, examination of land-based sources of pollution and their fluxes and impacts on the marine environment, investigation of cross-boundary transportation of contaminants from the Northwest Pacific region to the open ocean, and study of environmental criteria and standards.

(10)

UNDP/GEF Regional Programme for the Prevention and Management of Marine Pollution in East Asian Seas

The Regional Programme for the Prevention and Management of Marine Pollution in East Asian Seas is a cooperative effort of the Global Environment Facility (GEF) and UNDP to operate demonstration projects for application of integrated coastal zone management systems in prevention and management of marine pollution, especially pollution from land-based sources. The countries included in this regional program are ASEAN (Burma, the Philippines, Malaysia, Indonesia, Brunei Darussalam, Singapore, Thailand, and Vietnam), Cambodia, China, and North Korea.

(11)

Fisheries

There currently exists a web of nine (9) bilateral fisheries agreements in force in Northeast Asia involving all the Sea of Japan region's governments in one or more agreement. This is, however, no single forum which involves all the nations simultaneously in fishery-related issues.

## **Appendix 2: U.S.-Japan Cooperative Activities Pertinent to the Sea of Japan**

(1)

### **US-Japan Cooperative Program in Natural Resources (UJNR)**

NOAA and Japan's Science and Technology Agency (STA) are co-chairs of this long-running collaboration which includes a component entitled "Panel on Coastal Environment Science and Technology." The panel seeks to develop joint U.S.-Japan coastal environment research and monitoring programs, exchange scientists and engineers, share data and information, conduct meetings every two years, and publish joint documents. The panel held its first bilateral experts meeting 17-19 March 1998 in Japan. Here experts exchanged technical information on such topics as oil spill mitigation, wetlands reclamation, water quality monitoring and modeling, marine biology monitoring, and coastal zone management.

(2)

### **U.S.-Japan Common Agenda**

The U.S.-Japan Common Agenda is a program launched in 1993 in which the two countries cooperate and conduct joint activities to address "global" challenges such as the environment, public health, population, and science and technology development. Some of the activities which address marine issues include the Conservation Initiative, which focuses on priority global environmental issues such as climate change, biodiversity, hazardous waste, and ozone layer depletion; the International Coral Reef Initiative, which promotes conservation of coral reefs around the world; the Asia-Pacific Network for Global Change Research (APN), which includes examination of marine issues; and cooperation on oil spill mitigation.

## Endnotes

<sup>1</sup> Mark J. Valencia, 1998, "Ocean Management Regimes in the Sea of Japan: Present and Future." Paper presented at the Energy-Related Marine Issues in the Sea of Japan Workshop, Tokyo, 11-12 July 1998.

<sup>2</sup> U.S. Department of State, *United States Policy on the Spratleys and the South China Sea*, 10 May 1995.

<sup>3</sup> Most of the items in the list are described in more detail in the paper by Mark Valencia of the East-West Center: Mark J. Valencia, 1998, "Ocean Management Regimes in the Sea of Japan: Present and Future," in his paper presented at the Energy-Related Marine Issues in the Sea of Japan Workshop, Tokyo, 11-12 July 1998. They are also discussed in the paper by Peter M. Haas, 1998, "Prospects for Effective Marine Governance in the Northwest Pacific Region," a paper commissioned for the Energy-Related Marine Issues in the Sea of Japan Workshop, Tokyo, 11-12 July 1998.

<sup>4</sup> Stanley B. Weeks, 1998, "Sea Lines of Communication (SLOC) Security and Access," in: *Maritime Shipping in Northeast Asia: Law of the Sea, Sea Lanes, and Security* edited by Michael Stankiewicz, Institute on Global Conflict and Cooperation (IGCC), Policy Paper #33. The quote is from page 56.

<sup>5</sup> Mark J. Valencia, 1998, "Ocean Management Regimes in the Sea of Japan: Present and Future." Paper presented at the Energy-Related Marine Issues in the Sea of Japan Workshop, Tokyo, 11-12 July 1998.

<sup>6</sup> Mark J. Valencia, 1998, "Northeast Asia: Transnational Navigational Issues and Possible Cooperative Responses," in: *Maritime Shipping in Northeast Asia: Law of the Sea, Sea Lanes, and Security* edited by Michael Stankiewicz, Institute on Global Conflict and Cooperation (IGCC), Policy Paper #33, p 26.