PRACTICAL INITIATIVE BY PEMSEA / EARL TO PROMOTE OPRC IN EAST ASIA

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ABSTRACT: The issue of sustainable development is critical for the future prosperity of East Asia. The Region has seen rapid economic progress in recent years but at a cost to the environment. There is significant oil tanker traffic through the seas of East Asia as oil is transported from the Middle East to North Asia. In recent years, there have been a number of significant spills in the region. The oil industry has been active in establishing resources in the region, including East Asia Response Limited, to help with the response to oil spills. A GEF/UNDP/IMO initiative PEMSEA (Partnerships in Environmental Management for the Seas of East Asia) has been developing and promoting strategies and action plans to ensure better environmental management in East Asia. This can be best achieved by building partnerships amongst all the concerned stakeholders, public and private, at local, national and regional levels. Strengthening the technical and management expertise in environmental issues, including oil spills, of local government officials within the region is a key element in ensuring long term sustainable development. The private sector can play a very useful role in helping to build this expertise. East Asia Response and PEMSEA have been collaborating closely to improve the oil spill response knowledge and expertise of local officials in the region. Delegates to jointly held training courses have come from Brunei, Cambodia, the People's Republic of China, Indonesia, Malaysia, Philippines, Thailand and Vietnam. The courses have allowed us a valuable opportunity to present to the delegates the oil industry's approach to oil spill response. Topics, such as the tiered response concept, contingency planning and net environmental benefit analysis have been well received. Delegates will now be better able to promote oil spill response preparedness and response capability in their home country, thereby, contributing to the sustained development of their economy.

Discussion

The importance of sustainable development is clear yet progress remains limited.

Water, for instance. Presently 1.1 billion people have no access to safe drinking water. On present consumption rates 2.7 billion people will face severe water shortages by the year 2025, almost 30% of the predicted global population. Yet, adequate water resources are essential to global development.

Closer to home in Asia, two vital natural ecosystems, mangroves and coral reefs are under threat. Asia dominates world aquaculture, accounting for almost 90% of all farmed fish, shrimp and shellfish. Aquaculture can have significant environmental impacts. The loss of mangrove swamps, through conversion to fish farms, has led to the erosion and flooding of coastal areas, altered drainage patterns and removed critical habitats for many aquatic species. Yet, aquaculture remains a vital source of human protein. Presently, nearly one-third of all fish consumed is the product of aquaculture. This figure is likely to increase in the future with the continued decline of conventional fish stock from the world's oceans.

In South East Asia, 55% of coral reefs are at high or very high risk from human activities. Destructive fishing practices, such as dynamite or cyanide fishing, cause direct physical damage to corals. Indirect effects, including shifts in fish size and species composition, can precipitate larger changes in the local ecosystems. Coastal development, including shoreline and construction and tourism can have harmful effects on coral growth and reproduction.

For our industry, the most serious threat to the environment is the risk of an oil spill.

A spill will impact economic activities, such as fisheries and ports, and marine ecosystems. Tourism and recreational activities will also be affected leading to further economic loss.

Asia has not been spared from oil spills. There is heavy traffic of oil transportation from the Middle East, in particular through the Straits of Malacca and Singapore, to North Asia. Several countries have incurred serious oil spills.

The oil industry has been proactive in locating resources in the region. East Asia Response Limited was established in 1993 in Singapore to provide resources for a Tier 3 spill in the region. Each country generally has an industry sponsored Tier 2 co-operative as a first response to an incident. The Petroleum Association of Japan has established a network of response equipment stockpiles in the region for use in an emergency. The Government of Japan has also provided oil spill response equipment to individual countries in the region.

1999 saw the first phase in the development of a Marine Electronic Highway for East Asia with agreement for a prototype system in the Straits of Malacca and Singapore. The United Nations has provided much support for environmental initiatives in the region. An oil spill incident in the Straits, which have been described as a 'nightmare to shipmasters', could have serious

Table 1 : Oil spill incidents in East Asia

Year	Country	Incident	Spill size
1992	Malaysia	Nagasaki Spirit	13,000 tons
1995	Korea	Sea Prince	5000 tons
1996	Singapore/Malaysia	Evoikos	28,500 tons
1997	Japan	Nakhodka	6,200 tons
2000	Singapore	Natuna Sea	5000 tons
2001	Taiwan	Amorgos	1000 tons

economic and environmental consequences in the coastal areas of three countries (Indonesia, Malaysia and Singapore).

The Marine Electronic Highway, taking advantage of new technologies, will incorporate an information system, electronic navigational charts and databases, linked to a differential global position system and an environmental management system with meteorological and oceanographic data. The integrated system will maximise information available to both ship and shore-based users enhancing marine safety and environmental protection.

The finance for the project comes from the GEF or Global Environment Facility. The GEF is a Trust Fund that provides finance, either through grants or concessional funding, for activities leading to global environment benefits in six focal areas, namely, biodiversity, climate change, international waters, ozone depletion, persistent organic pollutants and land degradation.

The GEF works with three agencies (World Bank, United Nations Development Programme and the United Nations Environment Programme) to implement projects. The Facility acts to bring together the 160 member governments with international and national organisations as well as public and private sectors bodies.

Such co-ordination and collaboration is particularly important because, as in the case of the Straits of Malacca and Singapore, the effects of marine pollution are very likely to quickly impact more than one country and more than one activity.

The GEF, in conjunction with the UNDP and the IMO, has also sponsored another project in Asia involving international waters. This project is the Partnerships in Environmental Management for the Seas of East Asia or PEMSEA. The Partnership has 11 members (Cambodia, the People's Republic of China, Brunei, Indonesia, Japan, the Republic of Korea, Malaysia, Singapore, Thailand, Philippines and Vietnam). The Regional Programme Office is in Manila.

The East Asian Seas have a total area of 7million square kilometres and a total coastline length of 234,000 kilometres. The majority of countries have long coastlines and large coastal areas conducive to human settlement and activity. There are five large marine ecosystems: the Yellow Sea, the East China Sea, the South China Sea, the Sulu-Celebes Seas and the Indonesian Seas. The Seas are connected to each other through oceanographic and meteorological links. There are also strong social and economic links between the countries in the region.

PEMSEA seeks to establish a shared vision for the Seas of East Asia that allows for economic development yet safeguards and sustains the region's natural resources.

This shared vision is articulated in an Environmental Strategy for the Seas of East Asia that promotes an integrated approach to dealing with the issues of economic development and the management of natural resources.

The Strategy emphasises the region's social and economic interdependence and ecological interconnections. It establishes a functional framework for regional co-operation and integrates existing regional environmental programmes and action plans.

Importantly, the Strategy provides a mechanism, not previously existing, to address issues which cross borders and boundaries in a comprehensive manner. The Strategy also emphasises the key role of local governments who are instrumental in providing environmental services and changing the behaviours of people regarding the use of marine and coastal resources.

PEMSEA's role is to develop and finalise the Strategy on behalf of the 11 participating countries. The individual member countries will implement the Strategy at the relevant national, regional and local levels.

PEMSEA has initiated a wide range of projects on environmental support and management. Eight demonstration sites in the region have been identified for the application of integrated coastal management (ICM). These will be long term projects for the effective management of land and water resources. The projects will include strategic plans, short-term action plans, training in managing coastal and marine areas and local awareness building of the importance of ICM. A number of pollution hotspots have been identified in the region where semi-enclosed sea areas are under particular stress. These include the Bohai Sea (the People's Republic of China), the Gulf of Thailand and Manila Bay. The project will encourage environmental risk assessments to understand the potential damage to an ecosystem from human activity and to use such assessments for making management decisions.

A key part of the Strategy is to develop human resources in the participating countries, in particular, at the local governmental level in coastal and marine environmental management. In the region, there are different approaches to protecting the environment and varying levels of management capabilities. Training programmes with local government participation will help reduce such differences.

East Asia Response has been pleased to assist PEMSEA in the development and implementation of training programmes on Oil Pollution Preparedness and Response. The training has been focused at IMO Level 2 for on-scene commanders and command centre supervisors. The courses have included an equal mix of theory and practice.

The courses have provided an excellent opportunity to explain the oil industry's approach to oil spill response. The importance of contingency planning, the use of net environment benefit analysis to determine the most appropriate response strategy and close co-operation between industry and government. The courses also included industry participants allowing them to share experience and perspectives with their local government colleagues.

To date, East Asia Response and PEMSEA have held five courses in the region with over 100 delegates from government and industry. Locations included Brunei, Bangkok, Manila and Yantai (Bohai Sea, the People's Republic of China). Delegates have attended the 5-day courses from each member Country in the region, the government delegates generally being responsible for the management of an oil spill incident in their respective

Figure 1 : Joint course held in Yantai, China

countries. The local government at each location has been very supportive in hosting the training sessions and providing oil spill response equipment for demonstration and practice.

Feedback from the courses has been positive. Delegates welcomed the international and regional exchange of experience on the subject of oil spill response and management. The importance and necessity of a sound contingency plan was accepted. The course was helpful in prompting delegates on their return home to review their contingency plan and to consider exercises as a means of testing the plan.

Presently, East Asia Response is working with ITOPF and PEMSEA to develop a 4- day workshop on contingency planning, compensation procedures for pollution claims and recovery of costs. The proposal for the workshop follows feedback from Member countries. National contingency plans in the region are at different stages of development. Procedures for dealing with compensation claims and experience are also limited. It is hoped to run the first workshop in late 2002.

Biography

Declan O'Driscoll, a geologist by training, became Chief Executive of East Asia Response Pte Ltd in 2001. Previously, he held a number of international positions in the services sector of the oil exploration and production industry before joining Oil Spill Response Limited in 2000.

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