

# Tropical Coasts

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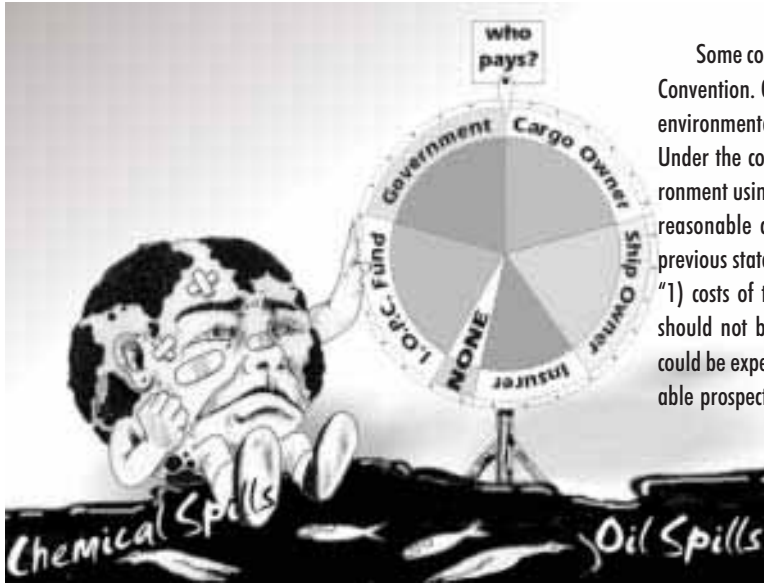


**Who Pays for the Damage?**  
**Oil and Chemical Spills**

# Who Pays for the Damage?

Ingrid Rosalie Gorre

Issue Editor



This issue of the Tropical Coasts presents various legal remedies both domestic and international on liability and compensation for damages that occur as a result of accidents, such as oil and chemical spills. Each regime has its own strengths and weaknesses.

The Exxon Valdez story as described in this issue shows an exceptional case where the domestic legal system was applied to the benefit of the claimants (see article on page 30). The liability of Exxon was not limited to actual damages but extended to billions of dollars in punitive damages as well. Damage to the environment was likewise compensated.

However, not all domestic cases can have a "rosy" ending. Domestic regimes often have certain limitations including the reliance on the principle of fault liability. In the absence of a party at fault, there is the possibility that an injured party cannot be compensated for damages. Unless there is a national law limiting liability, shipowners could face unlimited financial exposure if they are found to be at fault. Seventy-six percent of tankers world-wide are independently owned and unlimited financial exposure can be problematic for small independent shipowners. Shipowners themselves have realized the extent of the risk and have organized themselves to respond to this concern through organizations such as the International Tanker Owners Pollution Federation Limited (ITOPF) and INTERTANKO.

The CLC and Fund Convention provide a system of liability and compensation for damage from oil spills. It is a compromise for both

shipowners and claimants in the sense that shipowners are provided with a maximum limit of liability while claimants are provided with a two-tiered system for compensation. The first level is from the shipowner while the second level is from the IOPC Fund. The international regime provides financial safeguards for countries in the region. Ratification ensures that they have financial protection in case an accident occurs. This is a compelling issue in the region because of the huge amount of oil tanker traffic, thus increasing the likelihood of an oil spill.

Some countries in the region, however, hesitate to ratify the CLC and Fund Convention. One of the main objections of countries in the region is that pure environmental damage is excluded unless it can be related to economic loss. Under the conventions, assessment of compensation for damage to the environment using theoretical models is not acceptable. The Convention only allow reasonable claims for the restoration of the damaged environment to its previous state. Claims for restoration are subject to further requirements that: "1) costs of the measures should be 'reasonable'; 2) costs of the measures should not be disproportionate to the results achieved or the results which could be expected; and 3) measures should be appropriate and offer a reasonable prospect of success (see article on page 3)."

What the countries in the East Asian Seas region fail to realize is that existing limitations under the conventions are not cast in stone. Member-parties can modify these conventions by way of amendment or establishing a new protocol. In some instances, solutions can also come from the Fund Assembly or the Executive Committee. It is worthwhile to note that two out of the fifteen members of the Executive Committee of the 1992 Fund are from the region. Hence, the better strategy for countries in the region is to ratify the conventions first and then unite to push for reforms within the IOPC. Countries in the region should take their cue from countries in Europe, which have collectively pushed for reforms within the Fund.

There have been a number of successful claims in the region. Most of the successful claims were filed by Japan and Republic of Korea. From 1971-1997, an estimated 25 % of total payments made by the 1971 Fund were recovered by these two East Asian countries. However, oil spills in these two countries only represent 42 % of the total amount of oil spilled in the region (Oil Spill Intelligence Report, 1997). What about the damage caused by reported oil spills in other parts of the region, which amount to some 419,275 tonnes of oil spilled? Countries in the region will benefit from sharing of the lessons of Japan and Republic of Korea.

In the East Asian Seas region, some governments only have a general knowledge of the benefits of the CLC and Fund Convention. Information on detailed claims procedure is not available in most developing countries. More often than not, the general public is unaware of the availability of funds to compensate for their losses. Governments must take active steps in informing the public of the proper documentation and claims procedure. Experts from within the region must be developed and pooled to assist in the documentation and filing of claims. Help will not come from outside. It must come from within. If we are not going to help ourselves, nobody else will. ■

# Tropical Coasts

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**Manila Bay**, victim of numerous spills. Two oil spills occurred March and July 1999.

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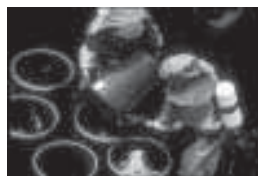
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Representatives of the Democratic People's Republic of Korea call for unity and cooperation in the region in the management of the coastal environment for the present and future generations.

# Facilitating the Speedy Payment of Oil Spill Compensation Claims Under the CLC and FUND Convention

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## Introduction

The prompt settlement of claims for compensation following oil spills from tankers is in everyone's interests, especially those who have incurred cleanup costs, had their property contaminated or suffered economic losses. This article will discuss some of the general guidelines that can facilitate the claims process (Box 1).

## Box 1. Tips in Claiming Compensation for Oil Spills

- adhere to published guidelines on admissibility of various classes of claims, as well as on record keeping and claims presentation.
- presented claims should not be speculative or inflated beyond their true value.

## The International Compensation Conventions

Compensation for damage caused by spills of persistent oil from tankers is governed by an international regime, based originally on the 1969 International Convention on Civil Liability for Oil Pollution Damage (1969 CLC) and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (1971 Fund Convention). The CLC makes the owner of the tanker strictly liable and creates a system of compulsory liability insurance. Claims for pollution damage up to the owner's limit of liability (based on the gross tonnage of the tanker) may be brought against the tanker owner or directly against the owner's P&I insurer (normally one of the Protection and Indemnity (P&I) Clubs). The Fund Convention provides supplementary compensation through the IOPC Fund when the amount

available under the CLC is inadequate to pay all valid claims. The IOPC Fund is financed by contributions levied on oil companies and other entities located in Fund Convention States that receive crude oil and heavy fuel oil after sea transport.

These Conventions were amended in 1992 by two Protocols,<sup>1</sup> commonly referred to as the 1992 CLC and 1992 Fund Convention (Table 1, ed.). The amendments increased the compensation limits and broadened the scope of the original Conventions. As of March 30, 2000, fifty-five States had ratified both 1992 Conventions and more are likely to do so in the near future. For this reason the remainder of this article concentrates on the admissibility of claims under the 1992 CLC and Fund Convention.

<sup>1</sup> The amended Conventions entered into force on 30th May 1996.

**Table 1. Difference between CLC/FUND 69/71 and CLC/FUND 92.<sup>2</sup>**

	<b>CLC 69 / FUND 71</b>	<b>CLC / FUND 92</b>
<b>Shipowner's limit of liability</b>	133 SDRs (US\$182.9) per tonne of the ship's tonnage or 14 M SDRs (US\$19 M), whichever is less	3 M SDRs (US\$4 M) for ships up to 5,000 gross tonnes, with and additional 420 SDRs (US\$577) per gross tonne up to a maximum of 59.7 M SDRs (US\$81)
<b>Special limitations for smaller ships</b>	No	Yes
<b>Fund Limit (aggregate including amount paid by shipowner)</b>	59.7 M SDR (US\$82 M)	135 M SDRs (US\$185.6 M)
<b>Ships covered</b>	Laden tankers	Laden and unladen tankers
<b>Geographical coverage</b>	Territory and territorial Sea	Territory, territorial sea, and EEZ
<b>Preventive measures where no spill occurred</b>	Not compensable	Compensable, where there was a grave and imminent danger of pollution
<b>Pure environmental damage</b>	Not specified	Compensable, for reasonable measures to restore contaminated environment

## Scope of Compensation: Admissible Claims

For a claim to be admissible, it must fall within the definition of pollution damage or preventive measures in the 1992 CLC and 1992 Fund Convention (Art I, 1992 CLC) . Guidelines<sup>1</sup> and policies have been formulated to facilitate a common understanding of what constitutes an admissible claim, which is essential for the efficient functioning of the international system of compensation established by the Conventions.

The Claims Manual of the 1992 International Oil Pollution Compensation Fund (1992 Fund) enumerates the general criteria applicable to all claims:

- the expense/loss must actually have been incurred;
- the expense must relate to reasonable and justifiable measures;
- an expense/loss or damage is admissible only if and to the extent that it can be considered as caused by contamination;

- there must be a link of causation between the expense/loss or damage and the contamination caused by the spill;
- a claimant must have suffered a quantifiable economic loss; and appropriate documents or other evidence has to be presented to prove the loss or damage;

There are four kinds of admissible claims under the 1992 CLC and Fund Convention:

- Preventive measures (including cleanup)
- Damage to property
- Economic losses
- Reinstatement/restoration of impaired environments

<sup>2</sup> The unit of account used in CLC and Fund is the Special Drawing Right (SDR), which is an artificial "basket of currency serving as the International Monetary Fund's (IMF's) unit of account for a number of other international organizations. As of 27 June 2000, the exchange rate of the SDR was 1 SDR = US\$1.375.

<sup>3</sup> These include the 1992 Fund's Claim Manual. However, this manual cannot be considered as an authoritative interpretation of the CLC 1992 and 1992 Fund. The admissibility of claims for compensation is still governed by the texts of the Conventions (ed.) See <<http://www.iopcfund.org/92CLAIM.PDF>>.

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## Preventive Measures

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Claims for measures aimed at preventing or minimizing pollution damage may in some cases include a proportion of the costs of removing oil (cargo and/or fuel) from a damaged tanker posing a serious pollution threat, so long as the primary purpose is to prevent pollution damage. Cleanup measures at sea, in coastal waters and on shorelines using specialized equipment and materials such as booms, skimmers and dispersants, as well as non-specialized boats and vehicles, including cost for labor would normally be considered as preventive measures (1992 Fund, 1998). The costs of disposing of recovered oil and associated debris are also covered, as would be any consequential loss or damage (for example to roads) caused by the preventive measures, subject to deductions for normal wear and tear.

To qualify for compensation under the Conventions, the costs as well as the preventive measures themselves have to be 'reasonable' according to objective criteria. The term 'reasonable' appears in the Conventions and is interpreted to mean that the measures taken or equipment used in response to an incident were, on the basis of an expert technical appraisal at the time the decision was taken, likely to have been successful in minimizing or



**Voluntary self-help measures can help protect fish in floating cages without the need to wait for institutional response.**

preventing pollution damage (1992 Fund, 1998). The fact that a government or another public body decides to take certain measures does not in itself mean that the measures and associated costs are 'reasonable' for the purpose of the Conventions (1992 Fund, 1998). Equally, the fact that the response measures turned out to be ineffective or the decision was shown to be incorrect with the benefit of hindsight are not reasons in themselves for disallowing a claim for the costs involved. A claim may be rejected, however, if it was widely known that the measures would be ineffective but they were initiated simply because it was considered necessary 'to be seen to be doing something' (IPIECA/ITOPF, 2000). On this basis, measures taken purely to

assuage political or public anger would not be considered reasonable.

Examples of measures, which may be considered 'unreasonable' include the large-scale deployment of offshore containment and collection equipment in circumstances where the oil had already spread and fragmented on the sea surface to such a great extent that it would be impossible to recover enough to significantly reduce the impact on coastlines and sensitive resources. Similarly, the continued spraying of dispersant on oil that had been shown by tests to be resistant to such chemical treatment might be considered a public appeasement measure rather than a technically justified response.

In some circumstances, the chosen technique might work but may be considered 'unreasonable' because it is known to cause more damage than alternative approaches. An example would be the extensive use of dispersant near caged fish or mariculture facilities where there is a risk of prolonged tainting of food products making them unmarketable. The aggressive cleanup of certain types of shorelines such as salt marshes and mangroves that are known to be highly sensitive to physical disturbance may also be considered 'unreasonable' since the resulting damage would be more long-term than if the oil had been left to weather and degrade naturally.

Most oil spill cleanup techniques have been in existence for many years and their practical limitations are well understood through world-wide experience. There is therefore little excuse for implementing inappropriate or damaging response measures. It is recognised, however, that the boundary between 'reasonable' and 'unreasonable' measures is not always clear-cut even after a full technical evaluation has been made and so there has to be a degree of flexibility. Furthermore, a particular response measure may be technically justified early on in an incident but may become inappropriate after some time has elapsed due to the weathering and spreading of the oil or other changes in circumstances. It is

therefore important that experienced personnel closely monitor all cleanup operations to assess their effectiveness on an on-going basis. Once it has been demonstrated that a particular method is not working satisfactorily, or is causing disproportionate damage, it should be terminated.

Cleanup operations are often carried out by public authorities which use their own permanently employed personnel, vessels, vehicles and equipment. These are "fixed costs" that would have arisen for the authorities concerned even if the incident had not occurred, e.g.

normal salaries for permanently employed personnel and capital costs of vessels owned by the authorities. The 1992 Fund accepts claims for a reasonable proportion of fixed costs, provided these costs correspond closely to the cleanup period in question and do not include remote overhead charges (1992 Fund, 1998). As well as fixed costs, additional costs may be incurred. Additional costs are expenses which arise solely as a result of the incident and which would not have been incurred had the incident and related operations not taken place (1992 Fund, 1998). Reasonable additional costs are accepted by the 1992 Fund.

**“ In some circumstances, the chosen technique might work but may be considered 'unreasonable' because it is known to cause more damage than alternative approaches. An example would be the extensive use of dispersant near caged fish or mariculture facilities where there is a risk of prolonged tainting of food products making them unmarketable. ”**

## Property Damage

Claims under this category would include, for example, the costs of cleaning contaminated fishing gear, mariculture installations, yachts and industrial water intakes. In cases of very severe contamination of fishing gear and mariculture equipment where effective cleaning is impossible, replacement of the damaged property may sometimes be justified, with a reduction for normal wear and tear. Such claims are relatively easy to assess so long as the required evidence is not destroyed before it is shown to surveyors or other experts working on behalf of those who will be required to pay the compensation.

## Economic Loss

The assessment of claims for economic losses following oil spills can be far more complex. Such losses may be the direct result of physical damage to a claimant's property ('consequential loss') or may occur despite the fact that the claimant has not suffered any damage to his or her own property ('pure economic loss'). An example of the first category is the fisherman who cannot fish because his or her boat and gear are contaminated with oil, whereas in the latter case the fisherman remains in port while there is oil on the water in order to avoid damaging his or her property but still suffers 'pure' economic loss as he or she is thereby prevented from

catching any fish or shellfish. An example of the second category is the hotel owner whose premises are close to a contaminated public beach and who suffers loss of profit because the number of guests falls as a result of the pollution.

Claims for pure economic loss are admissible only if they are for loss or damage caused by oil contamination (1992 Fund, 1998). Claimants must prove a reasonable degree of proximity between the contamination and the loss or damage. In determining reasonable proximity, the following elements are taken into account:

- geographic proximity between the claimant's activity and the contamination;
- degree to which a claimant was economically dependent on an affected resource;
- extent to which a claimant had alternative sources of supply or business opportunities; and
- extent to which a claimant's business formed an integral part of the economic activity within the area affected by the spill (1992 Fund, 1998).



**Cleanup of mariculture facilities contaminated by floating oil can be a compensable claim.**



## Environmental Damage

The purpose of the 1992 Civil Liability and Fund Conventions is to provide compensation for proven financial losses so that claimants are left in the same financial position, as they would have been had the oil spill not occurred. This poses a problem in the case of damage to natural resources that are not commercially exploited, and therefore have no true financial value. For this reason the definition of pollution damage in the 1992 CLC and 1992 Fund Convention provides that compensation for impairment of the environment is payable only for the costs incurred in taking "reasonable" measures to reinstate a contaminated environment. This definition codifies the 1971 Fund's interpretation, as contained in a Resolution agreed by Member States that stated "...the assessment of compensation to be paid by the IOPC Fund is not to be made on the basis of an abstract quantification of damage calculated in accordance with theoretical models (Resolution No. 3 adopted by the Assembly of the Fund in 1980),"

For the costs of measures to reinstate the marine environment after an oil spill to be admissible for compensation, the following criteria would have to be satisfied:

- costs of the measures should be "reasonable";
- costs of the measures should not be disproportionate to the results achieved or the results which could be expected; and
- measures should be appropriate and offer a reasonable prospect of success (IOPC Fund, 1998).



**Disruption of normal fishing activities by floating oil is a type of economic loss and is compensable.**

“**Claims for pure economic loss are admissible only if they are for loss or damage caused by oil contamination (IOPC Fund, 1998).**”

Reinstatement of a damaged environment begins with careful cleanup so that the physical and chemical condition of the affected habitats is suitable for re-colonization by animals and plants. Natural recovery of a damaged area is then frequently rapid. Indeed, evidence from past oil spills around the world indicates that the well-known and sometimes dramatic short-term effects of oil spills on marine animals and plants do not normally translate into long-term population effects. This is because many components of the marine environment are highly resilient to short-term adverse changes, whether they are caused by oil spills, other pollution events or natural changes.

## Record Keeping



**A cleanup measure may be considered unreasonable because it is known to cause more harm than altering approaches. For example, inappropriate clean-up measures can cause damages to mangroves.**

In the relatively rare cases where the natural recovery of the biological populations is likely to be slow, further positive steps beyond cleanup may be beneficial. An example of such an approach following an oil spill would be to replant a salt marsh or mangrove area in which the plants had been killed, after the bulk oil contamination had been removed. In this way, erosion of the area would be prevented and other forms of biological life are encouraged to return. However, attempts at restoration will neither be feasible

nor appropriate in every case. In many instances, natural recovery will proceed quickly that human intervention, other than by judicious cleanup, would have no benefit or may actually cause additional damage.

The costs of post-spill environmental studies will only be considered admissible by the 1992 Fund to the extent that they concern pollution damage as covered by the 1992 Fund Convention. The 1992 Fund will not pay for studies of a general or purely scientific character.

The speed with which compensation claims are settled largely depends upon how long it takes claimants to provide the P&I Club and the 1992 Fund with the information they require in a format that readily permits analysis. For this reason, it is vital during any counter-pollution operation that records are kept of what was done, when, where and why to support claims for the recovery of the money spent in cleanup. Unfortunately, pressures to deal with practical cleanup problems are frequently severe and often result in record-keeping being relegated to a lesser priority. The appointment of a financial controller at an early stage of an incident can be valuable, both to coordinate expenditure and to ensure that adequate records are maintained.

The need to provide evidence and records to support claims also applies in the case of physical damage, economic losses and environmental damage. For example, the assessment of a claim for 'pure' economic loss should be based on the actual financial results of the individual claimant for appropriate periods during the years before the incident and not on budgeted figures. Any savings in terms of overheads or other normal expenses not incurred as a result of the incident should be subtracted from the loss suffered by the claimant. The 1992 Fund also takes into account the extent to which a claimant was able to mitigate his or her loss.

# “The need to provide evidence and records to support claims also applies in the case of physical damage, economic losses and environmental damage.”

## Assistance from Experts: The Role of ITOPF

In order to avoid difficulties arising in the claims process, advice on the above matters should be sought before and after a spill from the Protection and Indemnity Clubs (P&I Clubs)<sup>1</sup>, the International Oil Pollution Compensation Fund 1992<sup>2</sup> (1992 Fund) and from experts working on behalf of these organizations, particularly those from ITOPF.<sup>3</sup>

ITOPF provides a broad range of technical services in the field of marine oil pollution. The organization is non-commercial and is funded by subscriptions paid on an annual basis by the world's shipowners through their P&I Clubs. Despite this, the organisation operates free of partisan

commercial or political influences. ITOPF's technical and scientific staff pride themselves in giving objective technical advice in all circumstances and in all parts of the world.

At the request of a P&I Club or IOPC Fund, ITOPF's priority technical service includes giving objective and practical advice on the most appropriate cleanup response with the aim of mitigating damage to the environment and economic resources. This advice is designed to serve the wider response community. ITOPF is always ready to respond to any incident anywhere in the world and members of its technical staff have been on-site at more than 400 spills in over 80

countries since the mid-1970s. This gives ITOPF extensive first-hand practical experience of the realities of combating marine oil spills and the damage they can cause.

The ITOPF technical staff at the site of a spill will always seek to cooperate and work closely with all parties involved in the response operations, and to reach agreement on measures that are technically justified ("reasonable") in the particular circumstances. This not only helps ensure that the cleanup is effective as possible and that minimum of damage is caused, but also that subsequent claims for compensation can be dealt with promptly and amicably.

The assessment of the technical merits of claims for compensation is a natural extension of ITOPF's on-site attendance at the time of a spill. Claims for cleanup expenses, for damage to economic resources such as fisheries and mariculture, and for measures to help reinstate impaired natural environments are assessed according to the guidelines developed by the IOPC Funds. It is important to emphasize that ITOPF's role is to provide advice on the technical merit of claims. ITOPF does not itself decide whether or not a particular claim is

**Continued on page 51**

<sup>1</sup> See <http://w3.ime.net/~drwebb/pandi.htm>. P&I Clubs insure the third party liabilities of shipowners.

<sup>2</sup> See <http://www.iopcfund.org/>

<sup>3</sup> See <http://www.itopf.com/>. ITOPF was established as a non-profit making organisation in 1968 for the principal purpose of administering the Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution (TOVALOP). This agreement was introduced in 1969 as an interim measure pending the widespread implementation of the 1969 Civil Liability Convention (CLC) and 1971 Fund Convention. TOVALOP, together with its companion voluntary agreement, the Contract Regarding a Supplement to Tanker Liability of Oil Pollution (CRISTAL), was terminated on 20th February 1997 due to the widespread acceptance of the original CLC and Fund Convention by that time and the entry into force of the 1992 Protocols. ITOPF's members currently comprise some 4,000 owners and bareboat charterers of over 8,000 tankers, combination carriers and barges totalling about 187 million gross tons. Since 20th February 1999, the owners and bareboat charterers of all other types of ship totalling some 285 million gross tons have become Associates of ITOPF. This recognises the important role that the organisation plays in responding to spills of bunker fuel from non-tankers and, less frequently, hazardous and noxious chemicals.

# Who Pays for the Erika Spill in France?

By  
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(CEDRE)

## The Incident

The western entrance of the British channel has a long history of maritime catastrophes. Majority of the vessels sailing to and from the western ports of Europe pass through this route, off the island of Ouessant, at the highly dangerous western tip of Finistère, the French "Land's End". Despite the safety measures taken over the years, seven tanker accidents have occurred resulting in a total of 265,000 tonnes of oil spilled in these waters since 1976. The 7<sup>th</sup> incident took place on the December 12, 1999, nearly 20 years since the 6<sup>th</sup> one. The Maltese tanker Erika, en route from Dunkirk (France) to Livorno (Italy), with 30,000 tonnes of heavy fuel oil on board, broke in two at 8.15 AM. A fierce battle was fought the entire day by the high seas tugboat, Abeille Flandres, the "shepherd" of Ouessant and a "national hero" with an impressive record of 199 vessels assisted since 1979, among which 12 were tankers. The bow of the Erika sank during the night and the stern followed the next day. The shipwreck sank at an estimated depth of 120 m with an estimated 15,000 to 18,000 tonnes of fuel spilled at sea.

The Erika spill was not the largest in the area. In March 1978, the super tanker Amoco Cadiz drifted toward the north coast of Finistère spilling 223,000 tonnes of light crude oil (Chelminski, 1987). It was also not the first spill of heavy fuel in the area. In March 1990, the tanker Tanio broke in two off the north coast of Finistère, spilling 6,000 tonnes of heavy fuel. The Erika incident is distinct from the other incidents on two points: 1) the owner of the cargo was a prominent French company, and 2) the slick broke into hardly detectable patches and did not immediately hit the shore.

In all previous incidents, an international trader or a foreign oil company owned the cargo. In this case, the cargo of the Erika had been loaded in France and was the property of the French TotalFina group.<sup>1</sup> Similar to the 1989 Exxon Valdez incident (USA) (Lebedoff, 1997) (see related article on p. \_\_), one of the richest and most powerful national companies was involved.



*Wreckage of the Erika stern*

<sup>1</sup> The saga of the take-over by TotalFina by its national competitor, Elf Aquitaine was in the headlines of the French newspapers in months prior to the incident. Its chairperson was informally labelled Businessman of the Year by the French economic press.

In all previous incidents, the oil quickly hit the shore, resulting in media attention on the impact and response on the affected coastline. In Erika's case, the winds and currents pushed the oil spill parallel to the southern coastline of Finistère and a succession of storms broke the slicks in hardly detectable patches. For 11 full days, December 12–22, the media could only show navy footage of remote combat at sea. In the meantime, public rage was growing and the question was "why can't they recover it, burn it or sink it?." Similar to the 1997 Nakhodka incident in Japan (Anonymous, 1997), authorities were unable to satisfy the public's expectation of an appropriate response.

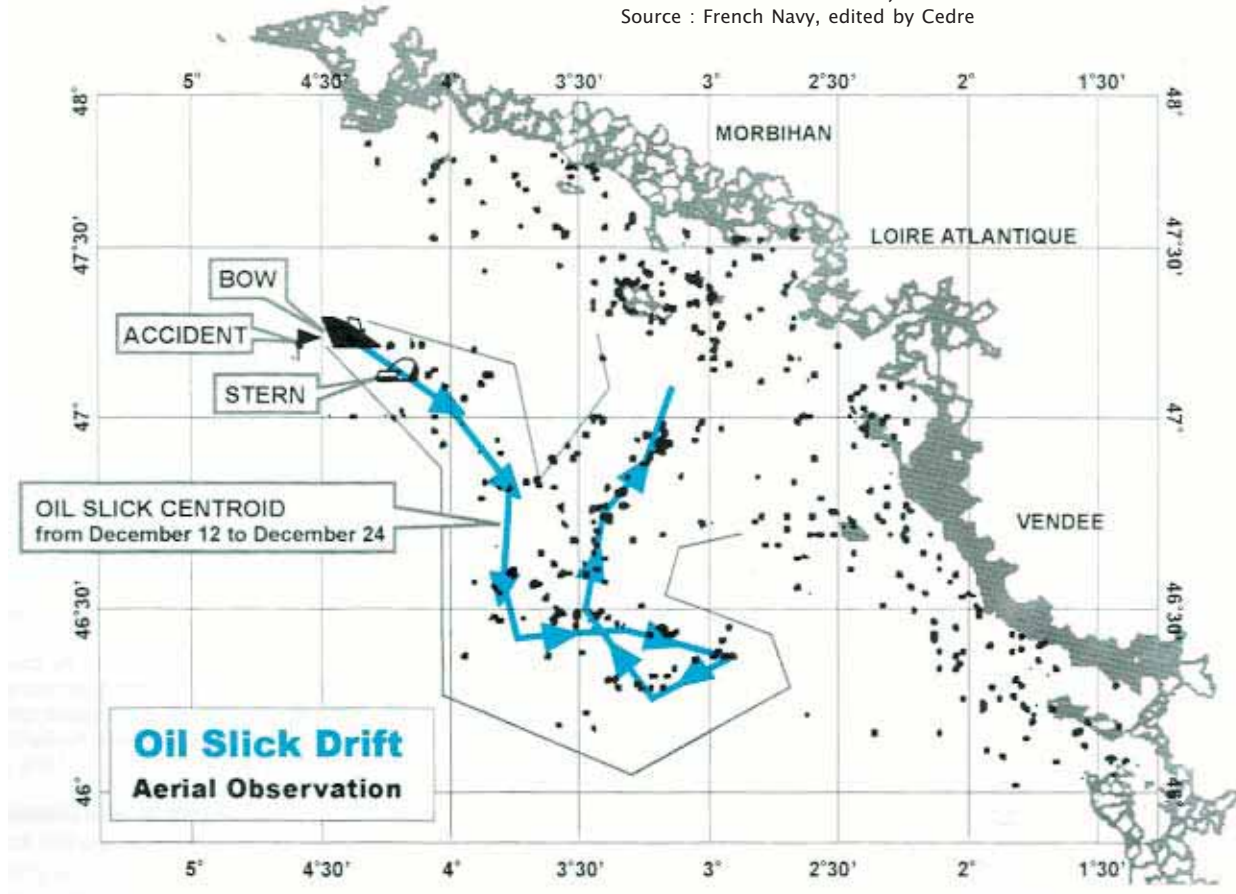
**Fig 1. Route of the Erika and affected area**

Source : French Navy, edited by Cedre



**Fig 2. Route of the main slicks and slicks situation on December 30, 1999.**

Source : French Navy, edited by Cedre



When the first oil reached the coastline, on the 23rd, after drifting southeast, parallel to the coast and then brutally changing direction to the north, it soiled beaches 200 km west of where it was expected, and in small quantities. On the 24th, Christmas Eve, the long expected black tide finally hit the tourist area in Loire-Atlantique, washed ashore by an unexpectedly strong southerly storm. Response on the coastline was getting organized when a stronger storm followed, devastating forests and electricity lines of a quarter of the country. For the French public, the black tide and the storm were twinned into a single, highly dramatic event. Also, the negative image of the Erika black tide was aggravated by a particularly high bird toll: at the

end of March, 61 000 individuals representing 58 species had been collected soiled, out of which less than 2,700 survived (*Cedre*, 2000a and 2000b).

Nature was the only responsible party for the storm. The Government and the state-owned electric company *Electricité de France* reacted strongly. All available means and personnel were mobilized to free routes, buildings and houses from fallen trees and to restore electricity. *Electricité de France* played it all in a remarkable "we shall spare no effort and no expense to reconnect you" style.

Nature, the shipmaster and the shipowner all played a role in the spill. The role of the cargo owner was only in the selection of the contracted ship for the trip.<sup>2</sup> Despite this, the French public felt that there should be no difference between the liability of *Electricité de France* and TotalFina. The public expected TotalFina to also act in a "we shall spare no effort and no expense to clean our mess" mode. In response, TotalFina announced its offer to help up to a certain extent, clarifying it had no liability for the pollution, technically or financially.

## The Applicable Rules

There is a whole world of differences between the public responsibility of *Electricité de France* and that of TotalFina. Under the international legal regime for compensation for oil pollution damage, the cargo owner, in this case TotalFina is not financially liable for pollution caused by its contracted carrier. Hence, TotalFina neither had the reason nor the authority to take over the response procedures.

## The International Regime for Liability and Compensation: CLC and the Fund Conventions

(see related article on p. for details on what are compensable claims)

International agreements, particularly the 1992 International Convention on Civil Liability for Oil Pollution Damage (CLC) and the 1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention), govern the regime for liability and compensation for oil pollution damage caused by oil tankers in French waters.<sup>3</sup> Under Article III of the 1992 CLC, the charterer of a ship has no liability and no authority to undertake any spill response of its own.

<sup>2</sup> TotalFina points out that the inspection of a ship's structure is the responsibility of the classification society and cannot be physically conducted by a ship charterer that does not have access to the ship while it is in dry-dock for maintenance and inspection. TotalFina claims that they only use 'authorized vessels certified by independent bodies.' In the case of Erika, TotalFina had a certificate from the Registro Italiano Navale Group (RINA) that the ship was in satisfactory structural condition (TotalFina, 2000a) (ed.).

<sup>3</sup> The 1992 CLC and Fund Convention entered into force on May 30, 1996 and is an amendment of the old regime for liability and compensation for oil pollution damage under the 1961 CLC and the 1971 Fund Convention (ed.).

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The shipowner has no legal authority to undertake oil spill response. However, it is liable for "any pollution damage caused by the ship as a result of the incident." These conventions impose a strict liability to the shipowner for any oil spill from its vessel, regardless of who is at fault. Under the CLC, the shipowner is entitled to limit his financial liability. In the case of the Erika, the shipowner's liability, insured by the Mutual Steamship Protection and Indemnity Club (the club), was limited to a little over 10 million euros (US\$9.07 million).<sup>4</sup>

Beyond the shipowner limit, additional compensation is available from the 1992 International Oil Pollution Compensation Fund (1992 IOPC Funds), which was created under the 1992 Fund Convention and financed by mandatory contributions of oil importers from member countries (i.e. including the TotalFina group).<sup>5</sup> The contributions are fixed yearly by the Assembly of the Fund, in the form of a set sum per tonne of imported oil for all importers of the member countries. Two Funds presently co-exist, the 1971 Fund, capable of paying compensation only up to 60 million euros (US\$5.4 million) for a single incident and the 1992 Fund, capable of paying

## “International agreements, particularly the 1992 International Convention on Civil Liability for Oil Pollution Damage (CLC) and the 1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention), govern the regime for liability and compensation for oil pollution damage caused by oil tankers in French waters”

compensation up to 180 million euros (US\$16.3 million) for a single incident. Fortunately, France withdrew from the 1971 Fund in 1988 to join the 1992 Fund. Hence, the total compensation available for all consequences of the Erika spill is around 180 million euros (US\$16.3 million).

If the total response costs and damages exceed the aggregate sum available from the 1992 IOPC Fund, the "amount available shall be distributed in such a manner that the proportion between any established claim and the amount of compensation actually recovered by the claimant ... shall be the same for all claimants" (Article 4, par. 5, 1992 Fund Convention). Of course, nothing will prevent any willing party to provide additional financing through an amicable agreement. There also remained the

possibility that some national rule, unrelated with the specific question of oil pollution, would apply to a party at fault, if any party were at fault.

This scheme, except for technical updates and financial modification above, has long been in force. It was successfully applied before in many incidents, including the 1980 Tanio incident. Claims for the Tanio incident was settled in 1987 between the IOPC Fund and the French Government on one hand, and the registered owner of the vessel and its Protection and Indemnity Club, on the other hand (IOPC Fund, 1988). Unfortunately, the French public and politicians had no memory of it. They were stunned to discover, among others, that the system provides no monetary compensation for environmental damage, when so many birds died.

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<sup>4</sup> All amounts in this article have been rounded to the closest 0 or 5 million euro. The euro to dollar exchange rate used in this article is euro 1 = US\$0.9069 and is based on the quote released on May 26, 2000 at <http://www.pforex.com/> (ed.).

<sup>5</sup> The IOPC Fund only covers claims for damages that occur in a State which is a Member of one of the IOPC Funds (ed.).

## Domestic Regulations for Oil Spill Response: POLMAR

Under French domestic law, oil spill response is governed by the state regulation, *Pollution Marine* (POLMAR). In the case of the Erika incident, all operations at sea to contain the spill were in the hands of the Maritime Prefect of the Atlantic (a navy admiral). All operations on the coastline were in the hands of the civilian prefects (senior officers of the Ministry of the Interior) of the affected administrative areas, namely, the *départements* of Finistère, Morbihan, Loire Atlantique, Vendée, and Charente-maritime. The coordination of the response on the coastline was first given to the Prefect of Charente-maritime. This was later shifted to the Prefect of the larger "Western Civil Defence Area".

The prefects were empowered by the POLMAR instruction to mobilize all ad-hoc state services, including the army, as well as any required experts, such as Centre for Documentation, Research and Experimentation on Accidental Water Pollution (*Cedre*), to implement their pre-set POLMAR plans. Local public services, in particular, those of the coastal *communes*, the smallest French administrative areas, were also expected to contribute to the local implementation of the oil spill response. The prefects were entitled to accept any valuable assistance to the response from the shipowner and/or cargo owner, but they did not have the authority to require such assistance.

## POLMAR FUND: Bridge for Oil Spill Response Expenses

Acknowledging the fact that identifying who is liable and obtaining actual payment from the responsible polluter may take time, the POLMAR rule provides for a POLMAR Fund, a special fund for extraordinary expenses, such as additional staff allowances for government employees, and specific expenses incurred for the oil spill response. The POLMAR Fund also finances private means mobilized by the Prefects. The POLMAR Fund excludes the salaries of the public servants, which will be incurred by the government with or without the oil spill, as well as compensation for individuals and companies affected by a spill. Expenses incurred by response volunteers, in particular wildlife associations, are not reimbursable.



**Response measures are taken as the oil hits the shore of Loire-Atlantique (December 29, 1999).**



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## Overstepping The Rules

The explanations on the compensation scheme bewildered the public. The public could not understand the difference between the situations of Electricité de France and TotalFina and asked why should claimants in an oil spill situation depend on the goodwill of an international body and face the risk of pro-rating? Victims of the storm had unlimited access to a national Natural Catastrophe Fund, through their home insurance. The public also could not understand the legal difference between a charterer and a shipowner. It could not understand why TotalFina can escape any participation in the response and payment of the consequences of its spilled oil, when Exxon spent a billion dollars in cleanup response to the Exxon Valdez oil spill and paid several billion dollars for compensation.

In late February, the press published unofficial estimated tourism losses running to 1.5 billion euros (US\$1.36 billion) (Nomade, 2000).

The Government was strongly pressured by the public not to claim its response expenses from the IOPC Fund and to leave all the available money from the Fund for the compensation of private victims. TotalFina was put under no less strong public pressure to acknowledge that, while not legally liable, it had some form of "social" responsibility.

After tense discussions, the Government agreed to claim its response expenses, estimated at 50 million euros (US\$45.3 million) only when the last of those victims would have been paid by the IOPC Fund. Forty million euros (US\$36.2 million) of emergency subsidies were also made available to assist the more urgent needs of fishermen, shellfish farmers<sup>6</sup> and the tourism industry, through applicable procedures under the Ministries in charge. The subsidy is expected to be extended to salt producers as well.

The TotalFina group also committed to provide 104 million euros (US\$99 million) covering 1) pumping the oil from the wreck, estimated at 60 million euros (US\$54 million), 2) treatment and disposal of all the oily waste produced by the cleanup operations, estimated at 40 million euros (US\$36 million) for 150,000 tonnes, 3) cleanup of inaccessible coastal areas, estimated at 6 million euros (US\$5.44 million) and 4) restoration of the ecological balance of the affected coastline through the Foundation for the Ocean, which will have a budget of around 8 million euros (US\$7.26 million) for a period of five years (TotalFina, 2000b). Repayment of

TotalFina expenses would be claimed from the IOPC Fund only if there is available money after the damages incurred by private victims and the response expenses of the Government is fully paid.

A unique and entirely new three-layered system was set. It completely overstepped the existing rules, adding close to 200 million euros (US\$181 million) to the available euros 180 million (US\$163 million) of the compensation system in force. However, far from being satisfied, the measures softened the public pressure.

## The Situation 5 Months After the Spill

A striking feature about the incident is that by mid-May 2000, five months after the spill, the amounts actually contracted and paid by the French Government, TotalFina and the IOPC Fund do not reflect at all the ranking of their financial commitment based on legal rules and voluntary contributions. Thus far, the Government and TotalFina have spent much more than the international compensation system in force.

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<sup>6</sup> Shellfish in certain areas near the oil spill have accumulated hydrocarbons. As a result, sale of shellfish products in these areas was banned temporarily. In addition, other bottom living organisms, such as sea spiders, crabs and some fish have also been reported to be stained by oil when brought to the surface. Since mid March a number of fishing bans on oyster and mussel farming and shellfish gathering on shorelines - have been lifted following sampling and tissue analysis by IFREMER (ed.) (ITOPF, 2000a and ITOPF, 2000b). Erika -Update 10/3/00. <http://www.itopf.com/news.html> and <http://www.itopf.com/news.html>.

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**“It is impossible to predict the final amounts to be paid by each concerned party in the Erika turmoil. There is no doubt, however, that the financing system of oil pollution response and compensation in force when the Erika broke in two, on the 12th of December 1999, will not remain unaltered. The French government has to respond to public clamor for changes”**

Amounts committed through the POLMAR Fund have reached around 45 million Euros (US\$40.7 million), about a quarter of which have been actually paid up. At least 240,000 person days of public servants, worth no less than 60 millions euros (US\$54.4 million), have been dedicated to the response. For its part, TotalFina contracted pollution cleanup operations, waste storage and preparation work for wreck pumping for an amount in the magnitude of 80 million euros (US\$72.5 million), a quarter of which have been paid up.

The IOPC Fund and the Club of the shipowner have received claims, amounting of 11 million Euros (US\$9.97 million). Some 180 claimants, most of them in the fisheries and aquaculture sectors, have been offered a settlement in the total amount close to 1 million euros (US\$0.9 million) by the Club and Fund, a large half of which have been accepted and paid (IOPC Fund, 2000).

From a technical point of view, this situation is highly logical. The French Government and TotalFina are jointly facing rapidly growing response costs, while the international compensation

system has only started to repay reasonable and properly documented costs and damages incurred. If the French Government and TotalFina claim their expenses from the compensation system, payments by the system could be expected to grow fast and the present ranking of the different payers would reverse with time, in relation to the nature of their commitments and the amounts indicated above. Nevertheless, both have no intention to claim those evident and already documented expenses before all individual victims are compensated.

Seen through the eyes of the French public, particularly those of the fishermen, fish farmers and operators in the tourism business, the situation is hardly understandable. They view that the expenses have been primarily shouldered by the French Government, using taxpayers money and that the compensation system in force hardly paid for anything and that TotalFina paid amounts of very little importance for such a company<sup>7</sup>.

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<sup>7</sup> TotalFina announced a net profit of 1.5 billion euros (US\$ 1.36 million) for the year 1999 in its most recent shareholder's meeting.

## Conclusion

Many mutually supporting, as well as conflicting moves are underway at different levels. The French Government announced it would request a five-fold increase in the total amount payable by the IOPC Fund for a single incident to be applied prospectively. France and the European Commission are investigating the possible creation of a European Oil Pollution Fund, as an additional layer of compensation when European operators are affected. Local authorities of a number of affected communes and départements have contracted specialised lawyers, some of which have started a procedure against TotalFina, based on a domestic waste law which requires a polluter to remove its waste from the coastline at its own expense. Various other procedures are either planned or already underway. Five different audit commissions are investigating different aspects of the incident, including a commission under the National Assembly.

It is impossible to predict the final amounts to be paid by each concerned party in the Erika turmoil. There is no doubt, however, that the financing system of oil pollution response and compensation in force when the Erika broke in two, on the 12th of December 1999, will not remain unaltered. The French government has to respond to public clamor for changes. The European Commission, angered by one

more black tide after the Haven (Italy, 1991), Aegean Sea (Spain, 1992), Braer (United Kingdom, 1993) and Sea Empress (United Kingdom, 1996), is likewise determined to push for reforms. Many long and tense discussions can be expected to take place in the coming months and years, at the French and European levels, and in the corridors and meeting rooms of the International Maritime Organization. ■

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<sup>9</sup> In the 44th Session of the Marine Environment Protection Committee last March 6-13 2000, IMO Secretary-General William O'Neil reiterated his firm position that IMO should always and without exception, be regarded as the only forum where safety and pollution prevention standards affecting international shipping should be considered and adopted. He emphasized that regional, especially unilateral application to foreign flag ships of national requirements, which go beyond IMO standards will be detrimental to international shipping and to the functioning of IMO itself – and should be avoided (IMO, 2000).

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## Risky Situation in East Asia

East Asian Seas are at high risk for oil pollution because of the major oil tankers routes that pass through the region (Figure 1). Over 3 million barrels of oil per day are carried by tankers through the Malacca Straits and the South China Sea (Morgan and Valencia, 1983). Due to the fact that the Malacca Straits offer the shortest routes, saving transporters thousands of dollars of costs, it is highly favored as a route except for the largest of tankers. However, the narrowness of the Straits has caused many collisions. From 1967 to 1997, twenty-six tanker incidents occurred resulting in at least 70,000 tons of oil spilled into the Straits (Hamzah and Basiron, 1997). In October 1997, the tanker *Evoikos* and the bulk carrier *Orapin Global* collided in the Straits resulting in a spill of 25,000 tons of oil.

The South China Sea to this day is labeled "Dangerous Ground" on maritime charts, and with reason. Numerous parts of the area contain reefs, undersea mountains, rocks and shoals few of which are visible on the surface of the sea, but which are high enough to cause harm to ships.

# CLC and FUND Conventions in the East Asian Seas Region

## Status Report

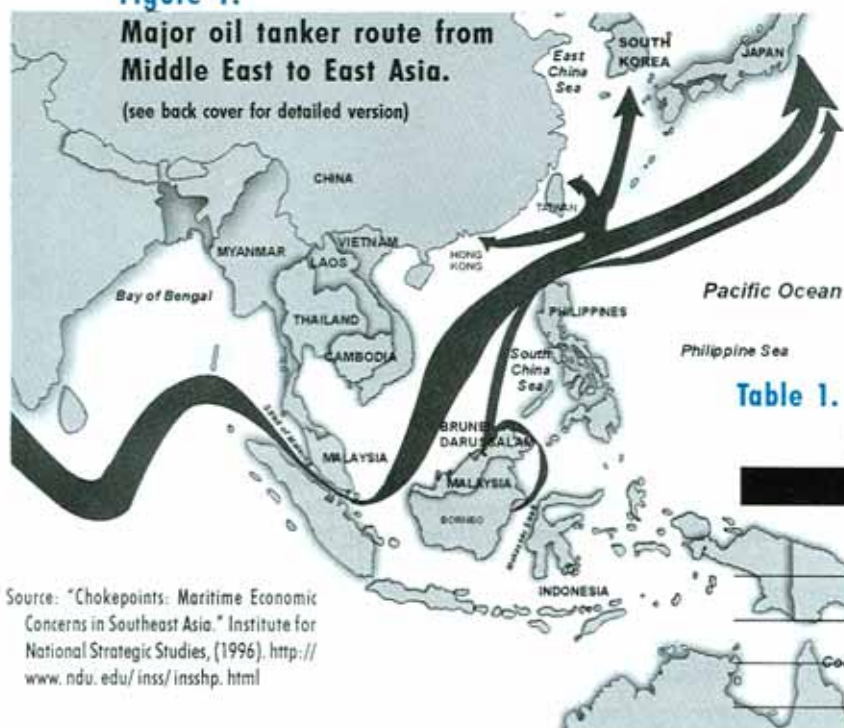
In the late 1970s, realizing the danger of oil pollution due to tanker accidents, a number of East Asian countries ratified the 1969 International Convention on Civil Liability for Oil Pollution Damage (1969 CLC) and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (1971 FUND). Cambodia, China and Singapore ratified only the 1969 CLC, not the 1971 FUND. It can be surmised that this was due to a reluctance to impose a burden on their oil importers, and the belief that the coverage offered by the 1969 CLC would be enough to compensate any damages caused by oil spills.

In 1992, these two conventions were modified by two protocols (1992 CLC and 1992 FUND) (see related article on page 4). More countries began to ratify the 1992 CLC and 1992 FUND. A few of those who were already members of the 1969/1971 conventions migrated to the new conventions. Among these, China and Indonesia denounced the 1969 CLC and 1971 FUND, but ratified only the 1992 CLC. The rest of those who are currently members of the 1969 CLC and 1971 FUND are in the process of ratifying the new conventions, although there are a few countries where there is no perceptible effort to move to the new instruments. Within the East Asian Seas region, there are a number of combinations of the two new and two old conventions (Table 1).

**Figure 1.**

**Major oil tanker route from Middle East to East Asia.**

(see back cover for detailed version)



Source: "Chokepoints: Maritime Economic Concerns in Southeast Asia." Institute for National Strategic Studies, (1996). <http://www.ndu.edu/inss/insshp.html>

**Table 1. Ratification to CLC and FUND in East Asia (As of 30 April 2000).**

Country	CLC		FUND	
	69	92	71	92
Brunei	92		92	
Cambodia	94			
China <sup>1</sup>	d	99	d	
DPR Korea				
Indonesia	d	99	d	
Japan	d	94	d	94
Malaysia	95		95	
Philippines		97		97
Rep. of Korea	d	97	d	97
Singapore	d	97		97
Thailand				
Vietnam				

Numbers denote year of accession  
d = denounced

## Costs and Benefits of the CLC and FUND

Whatever the combination, in regard to the implementation of these conventions, many countries suffer from a lack of familiarity with the nuances of the conventions and a lack of the capacity to maximize their advantages.

### Benefits

Does being a member of the CLC and FUND help a country in East Asia? The alternatives to CLC and FUND are national legislation on damages or regional arrangements. However, national or regional institutions for that purpose would be hard-pressed to produce a fund in the magnitude of the International Oil

Pollution Compensation Fund (IOPC). The East Asian Seas are at high risk from oil pollution because of the major oil tankers routes. Membership with CLC and IOPC assures compensation in amounts that would probably not be available otherwise.

FUND also clearly provides for the participation of the cargo owner, in this case the oil receiver, in the compensation package. The conventions operate on the standard of strict

liability, and claimants can go directly against the shipowners or their insurers and the IOPC. Most cases are settled out of court. On the part of the tanker owners, CLC gives them protection through the provisions on limitation on their liabilities, while FUND provides a mechanism for the oil industry to collectively answer to such cases.

<sup>1</sup> China ratified Fund 92 only with respect to the Hong Kong Special Administrative Region, presumably due to the high volume of tankers in Hong Kong Port.

## Costs

The costs to a country to be able to benefit from CLC and FUND are not particularly heavy. These include the capacity-building measures that are needed to implement the two conventions, namely, enacting implementing legislation, instituting the administrative procedures to enforce the requirements among tanker owners and oil receivers, and the procedures (during and after an oil pollution situation) to facilitate compensation claims.

On the part of the tanker owners and the oil receivers, on them falls the burden of acquiring insurance coverage and contributing to the IOPC Fund respectively.

## Problems of Implementation in the East Asian Region of CLC and FUND

Problems relating to capacity may be grouped into three categories: legislation, administration, and the scientific and technical.

### Legislation

Among the seven countries that are members of 1969 and 1992 CLC, three have implementing legislation while the rest have minimal or no implementing legislation. Among the five members of 1971 or 1992 FUND, two have no implementing legislation whatsoever, although the Philippines has proposed a legislation pending in Congress. While this may be remedied



**Marine Pollution Prevention in the East Asian Seas (MPP-EAS) Regional Consultative Workshop on the Recovery of Oil Spill Clean-Up Costs and Pollution Damage Claims, Singapore, 3 September 1999.**

at the administrative level, when an incident occurs requiring the application of the conventions, the failure to specify procedural applications through implementing law complicates and may even jeopardize the award for damages. Ultimately, the claimants have recourse to their own courts (except where a related claim has earlier been instituted in the court of another country) for the final determination of compensation that may be awarded. Without a law to interpret the conventions, it is possible for a court to issue decisions inconsistent with them.

### Administration

It is common for government agencies in developing East Asia to suffer from a lack of human, financial and other resources, as well as jurisdictional conflicts. In relation to CLC and FUND, the main structural problems relating to the implementation of CLC and FUND are the appropriateness of the implementing agency and of the responsible personnel. The conventions have

disjunct implementing requirements. They cover maritime insurance, contributions of the oil sector to IOPC, and, finally, damage claims procedures. Some marine agencies find themselves with both appropriate and inappropriate responsibilities under the convention.

Implementing the claims aspect of the CLC and FUND is unfamiliar territory for many governments of East Asia. While jurisdiction over ship insurance and the oil sector is relatively clearly delineated, compensation claims for pollution damage is a new responsibility for the maritime sector. Strictly speaking, this is not a government responsibility under the conventions. However, in practice, it requires a certain amount of government involvement. The government has the responsibility of informing its nationals about their rights and how these may be asserted, and assisting in their claims. Another government responsibility relates to proving pollution response costs and preventive measures, and to ensure that these meet the criterion of reasonableness.

Technical issues relate to inadequate information and response procedures.

### *Lack of Information*

Information regarding the spill and how it has affected property in the marine environment is critical to proving costs and damages. Few governments have access to pre-spill information on the marine environment, nor the capacity to determine the source of the oil in cases of oil pollution. While the conventions have facilitated the awarding of damage compensation by doing away with fault liability, it is still necessary to prove that the cause of the damage was a particular oil, and that it came from a particular ship or ships.

### *Lack of Familiarity with Documentation Procedures*

The speedy recovery of costs and damages depends to a high degree on appropriate response procedures. This works to the detriment of the countries in the region because national contingency planning is not yet fully developed. The rationalization of national and local contingency plans should be a priority among the countries in the region, not only for their direct benefits, but also to ensure cost recovery and damage compensation. Furthermore, most national authorities are not fully aware of documentation procedures relating to oil spill response, which is critical to recovery of costs and the awarding of damages. A remedy to this problem is

“ The FUND requires that pollution response costs and preventive measures must be reasonable to be compensated. This is burdensome for the East Asian region, particularly the less developed countries, because the lack of resources constrains them to a narrow range of choices in responding to oil pollution emergencies. ”

to incorporate the procedure for documentation into contingency plans (MPP-EAS/PEMSEA, 1999).

### *Limited Capacity to Comply with the Requirement of “Reasonableness” in Oil Spill Prevention and Response*

The FUND requires that pollution response costs and preventive measures must be reasonable to be compensated. This is burdensome for the East Asian region, particularly the less developed countries, because the lack of resources constrains them to a narrow range of choices in responding to oil pollution emergencies, e.g. on the type of boat or equipment to be used (MPP-EAS/PEMSEA, 1999). Where such a case occurs and the available options for responding to the oil spill do not meet the “reasonable” criterion, the country may find itself

unable to collect compensation.

East Asian governments that do not have the equipment and human resources may prepare for contingencies through prior arrangements with private response organizations. It has been the experience of some countries that on-the-spot contracting of private response organizations often results in response measures which are uncompensable. In order to ensure that response measures taken are compensable, it is important to notify the IOPC, involved Protection and Indemnity Clubs (P&Is) of the ship-owner responsible for the oil spill, and the International Tanker Owners Pollution Federation Limited (ITOPF) as early as possible after an incident, and continuously consult them during application of response procedures (MPP-EAS/PEMSEA, 1999) (see related article on page 3).

### *Lack of Familiarity with Claims Rules and Procedure*

An effective claim for damages from the IOPC requires familiarity with its procedures, substantive rules, and decision-making processes. The IOPC has published a Claims Manual to promote an awareness and understanding of procedural and substantive requirements for claims. However, this Claims Manual is very general in the sense that the range of possibilities discussed is limited. There are many possible claimants with different situations who would need more guidance than what is currently available. For example, guidance is needed on the range of allowable rates for, e.g., labor (MPP-EAS/PEMSEA, 1999).

Countries in the region have good and bad experiences relating to claims. The Republic of Korea is one of those that has been successful. Three oil spills involving oil tankers occurred in that country in 1997, and from this experience, a damage claims manual for the use by fisherfolk was developed. For the Republic of Korea, the manual filled the gap on the lack of specific criteria for cost and damage claims (MPP-EAS/PEMSEA, 1999).

## Limitations of the CLC/FUND system

### Exclusion of Pure Environmental Damage

Not all expenses and damages resulting from an oil spill incident are compensable. A particular concern of the countries of the region is the exclusion of pure environmental damages from the coverage of the conventions. Many parts of the East Asian Seas are still in their pristine state. Damage caused to such areas, which happen to be among the most vulnerable to oil pollution, are not compensable except for the cost of "reinstatement".

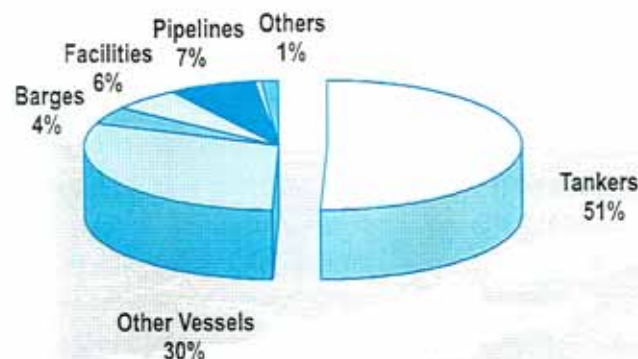
In the last decade, countries in East Asia have adopted measures to quantify the value of their environmental resources. Methods for doing so have been developed and utilized and these have gained a certain level of acceptance. Considerable effort has gone into bringing about a shift in attitudes in this direction.

The exclusion of compensation for these values by the CLC and FUND is not consistent with these efforts and provides a stumbling block to acceptance by some of the East Asian countries.

CLC and FUND provide for the compensation of the costs of "reinstatement" of environmental resources damaged by an oil spill, which costs have to be reasonable. This is not a simple matter however, as no criteria for reasonableness is provided. Furthermore, that damage was caused by the oil would have to be proven before the necessity of reinstatement is accepted. To do this, baseline data on the resources would be needed. There are many undeveloped areas in East Asia that are vulnerable to pollution damage for which there is no baseline data on environmental resources. [(See MPP-EAS, 1999) for a discussion on natural resource damage assessment].

### Figure 2. Sources of Oil Spill in East Asia

Source: Erkin, D. S. 1997. Oil spill in Pacific Asia: Over 220 million gallons spilled since 1965. Oil Spill Intelligence Report.





Finally, the question of whether the costs of reinstatement are adequate to compensate for lost value of an oil-damaged area of the environment is not settled.

### Application of FUND is limited to oil tankers

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In 1999, several oil pollution incidents from ships occurred in Manila Bay. Most of them could not be compensated by IOPC because the incidents involved bunker spills of ships that were not oil tankers. Only oil tankers (or ships that are used regularly as oil tankers) are covered by the CLC and FUND. This is a matter of concern for the region, which has to cope with many other types of pollution from ships, or many types of oil pollution not from ships (See Figure 2).

### Areas for Regional Cooperation

Regional cooperation in the implementation of the CLC and FUND can be more effective and efficient than efforts by individual countries. Initial steps may include exchange of information on, for example, response capabilities, accounting procedures and valuation of resources, developing a regional pool of experts, cooperation on oil spill claims, response and contingency planning, and having a regional position on cases being discussed in the IOPC (MPP-EAS/PEMSEA, 1999). Some of these can be done immediately as part of ongoing national efforts, such as developing appropriate national legislation (Box 1).

**“In East Asia, no case has yet demonstrated the amounts compensable under CLC and Fund to be inadequate, although at the level of risk of the region from oil pollution, the possibility of such a case is very high.”**



**Deployment of boom as part of an oil spill response exercise (IMO/Singapore/TCTP OPRC Training, 25-29 October 1999).**

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CLC has inherent elements that promote inter-country cooperation. For example, CLC requires port authorities of the different countries to network for the purpose of exchanging experiences and information to enhance enforcement efficiency. This may begin with a simple exchange of information on a more systematic basis and harmonization of documentation procedures, taking into account the requirements of the IOPC (MPP-EAS/PEMSEA 1999).

### Developing a Regional Pool of Experts

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There is a clear need to develop regional self-sufficiency on expertise. While some countries have brought in experts from outside the region with successful results, the transaction costs for such arrangements are high.

## Box 1. Summary of Possible Actions to Improve Implementation of CLC and Fund

On 3 September 1999, a group of East Asian maritime and environment authorities met in Singapore to discuss the status of oil spill liability and compensation in the region. This was a significant gathering because of the relatively recent widespread applicability of the conventions on liability and compensation for oil pollution. The meeting identified actions that may immediately be taken by countries individually and as a group, among which are the following:

### National

1. Develop national legislation to implement CLC/FUND
2. Develop appropriate local and national contingency plans, and in this connection:
  - Enter into prior arrangements with other countries and/or private response organizations for contingencies beyond the capacity of government response agencies
  - Incorporate procedures for consideration of CLC/FUND criteria and for documentation of expenses
  - Institute procedures for pre-notification of IOPC, ITOPI, and other appropriate organizations
3. Hold workshops on implementing legislation (models to be made available by PEMSEA)
4. Understand the claims process and have clear guidelines on it in the country, clearly identifying the responsibilities of different agencies and groups
5. Attend meetings of IOPC Funds Assemblies and Executive Committees, in order to be a part of IMO processes and to gain a clearer understanding of the conventions

### Regional

1. Institute common documentation procedures
2. Create a pool of experts in the region
3. Cooperate at subregional level on contingency planning and oil spill response, and in this connection:
  - Put into practice arrangements already existing but not yet operational
  - Exchange information on equipment stockpiles, personnel and vessels
  - Undertake combined training exercises
  - Enter into agreements on equipment and service fees
4. Exchange information on experiences and resulting documents developed (MPP-EAS/PEMSEA, 1999).

Developing a pool of experts on claims in the region to be shared among the countries will increase the efficiency of such expertise and should benefit all in the region (MPP-EAS/PEMSEA, 1999).

## Oil Spill Response and Cooperation

Cooperative arrangements on oil spill response and contingency exist in the region. Some of these are subregional in scope, such as in the Malacca and Singapore Straits, Gulf of Thailand, and Sulu-Celebes Seas. It has also been suggested that a simple procedure such as having a liaison officer from a neighboring country that might be affected, in the country responding to an oil spill, would enhance collective response effort, including documentation. Claims will be also be facilitated if the requirements of the CLC and FUND are integrated into these arrangements (MPP-EAS/PEMSEA, 1999).

## Acting in Concert

The countries of the East Asian region should consider acting in concert to ensure that their concerns and needs are properly addressed within the IOPC, and in other current and future instruments. For example, the decision on limitations is made by the member governments of the IOPC. It will take a change in international consensus on limitations of amounts and compensability to bring

about a corresponding change in IOPC policy (MPP-EAS/PEMSEA, 1999). Currently, European countries are in agreement to change the limitations of compensation due to their inadequacy in an actual case, the Erika incident (see related article on page 12). In East Asia, no case has yet demonstrated the amounts compensable under CLC and Fund to be inadequate, although at the level of risk of the region from oil pollution, the possibility of such a case is very high. However, to react regionally as Europe has, countries have to be in a "collective action" mode.

The region must realize that active participation in IOPC and IMO meetings is important. East Asian Seas countries must be actors in the full sense of the word as States parties of the conventions, rather than just a recipient of the rules and standards that they provide. A unified stand by countries of a region is a powerful force in such forum. This is especially useful where resources do not allow the countries to be individually represented at all times and they can authorize a specific country to speak on their behalf (MPP-EAS/PEMSEA, 1999).

A constraint in regard to regional cooperation is the fact that not all of the East Asian Seas countries are members of CLC and FUND at the present, and those who are members of different versions and combinations thereof (MPP-EAS/PEMSEA, 1999).

*Continued on page 51*

# T R A I N I N G S C H E D U L E \*

## July 2000 - September 2001

17-28	July	2000	Risk Assessment and Risk Management (Manila)
16-20	October	2000	OPRC Level 2: Supervisors/ On-Scene Commanders (Singapore)
10-16	December	2000	Integrated Environmental Impact Assessment (Hong Kong)
05-10	March	2001	Natural Resource Damage Assessment
21-25	May	2001	Damage Claims, and Compensation for Oil Pollution
16-27	July	2001	Risk Assessment and Risk Management (Thailand)
20-24	August	2001	Risk Assessment and Risk Management (Bali)
20-24	August	2001	Training-workshop for Media Practitioners
27-31	August	2001	Risk Assessment and Risk management (Chonburi)
03-07	September	2001	Risk Assessment and Risk management (Kiang)
03-15	September	2001	Project Development and Management Course For Coastal and Marine Environmental Projects

\* The above schedule is subject to change.

*"The Project Development and Management Course has exceeded my expectations and I got more than what I expected such as the application of Integrated Information Management System(IIMS) and the application of GIS. Risk Assessment is one area which interests me most. All other topics further strengthen the participants capacity to achieve the main objectives of the course."*

**Rolando Banzon**  
Project Director  
Bataan ICM Parallel Site

*"Over-all the course was properly designed with the right integration of natural science with management science that also include the social and economic dimensions."*

**Rahmat Mohd Sharif**  
Director  
Selangor Waters Management Authority



For further information on the above and other courses,  
please contact:

**Regional Programme Director**  
GEF/UNDP/IMO Regional Programme on Building Partnerships  
In Environmental Management for the Seas of East Asia  
(PEMSEA)

Mailing Address: P.O. Box 2502, Quezon City 1165, Philippines  
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e-mail: [info@pemsea.org](mailto:info@pemsea.org)



building  
capacity



# PEMSEA

# Ceremonial Launching!

Governments, stakeholders, international organizations, the private sector gathered to celebrate the ceremonial launching of the Regional Programme on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) on April 25, 2000 in Manila Bay (Philippines). PEMSEA is a cooperation between eleven countries in the East Asian Seas region, namely: Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea (DPR Korea), Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand, and Vietnam.\* PEMSEA is funded by the Global Environment Facility (GEF),

implemented by the United Nations Development Programme (UNDP), and executed by the International Maritime Organization (IMO).

Undersecretary Mario Roño, on behalf of Philippine Department of Environment and Natural Resources (DENR) Secretary Antonio Cerilles, called for unity and greater sense of community among the countries in the region in managing and protecting the East Asian Seas. Realizing the great task at hand, Undersecretary Roño also called upon the non-government organizations, the media, the private sector and other civil society groups to cooperate in undertaking this challenge.



Ambassador Jose A. Syjuco, Jr., Chairman and CEO, Petron Corporation addressing issues of Development and Environmental Management in the New Millennium. On the left are the containers used for the water ceremony.



Keynote speaker, Ambassador Jose A. Syjuco, Jr. Chairman and CEO of the PETRON, the largest oil refining and marketing company in the Philippines spoke on behalf of the private sector and reaffirmed their commitment to environmental protection and management. Ambassador Syjuco pointed out that the private sector cannot create a significant impact on the broad problem on their own. "We can only achieve that in partnership with our fellow stakeholders, as people united by a common goal". he said.

In addition to the ceremonial launching of PEMSEA, the celebration also served as a culminating activity for the Regional Training Course on the Development, Implementation and Management of Coastal and Marine Environment Projects. A total of thirty-one participants representing Cambodia, China, DPR Korea, Indonesia, Malaysia, Thailand and the Philippines completed the training course and will return to their respective countries to implement ICM and subregional sea areas/pollution hotspots projects.

PEMSEA's launching took place on board the M/S Philippines in Manila Bay. ■

Joe T. Lopez

PHOTOS FROM TOP LEFT:

- 1 DPR Korea delegates stating country issues in water ceremony.
- 2 Dignitaries including Dr. Chua Thia-Eng, Regional Programme Director of PEMSEA (fourth from left).
- 3 Mr. Terence Jones, UNDP Representative to the Philippines giving welcome remarks.
- 4 Bataan Provincial Governor Leonardo Roman (extreme left).
- 5 Guests on board M.S. Philippines.
- 6 Students from Cupang Elementary School, Province of Bataan - later to sing environmental song "Paraiso" (Paradise).
- 7 Philippine Department of Environment and Natural Resources Undersecretary Mario S. Rono, International Commitment and Local Government Affairs, giving challenge to stakeholders.



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## The Big Spill: The Exxon Valdez Tragedy Revisited

The name has become synonymous with environmental disasters. It was the subject of hundreds of lawsuits in U.S. federal and state courts, involving thousands of plaintiffs and close to 100 law firms (Goldberg, 1994). Ultimately, more than 200 experts, 400 court orders, 1000 depositions, 4,000 pleadings and 20 million documents were involved (Bardwick, 2000). It was the largest oil spill in the history of the United States and, in the words of the United States Supreme Court, the "most notorious oil spill in recent times" (*U.S. v. Locke, Intertanko v. Locke* (2000)). "It" is, of course, the oil spill of the tanker Exxon Valdez.

# Oil Spills in the U.S.: Response and Liability

On March 24, 1989, the Exxon Valdez, carrying 53 million gallons of crude oil, was cruising through the pristine and fecund waters of Prince William Sound, off the southern coast of Alaska. It had begun as a five-and-a-half day trip from Port Valdez, the terminus of the Trans-Alaska pipeline, to Long Beach, California. Over a thousand feet long, the Exxon Valdez was one of the largest vessels in the world. At its top speed of 15 miles per hour, it would take three hours to reach a stop. Having changed from its normal route to avoid small icebergs floating in the Prince William Sound, the Exxon Valdez was heading back into its course when it struck Bligh Reef. 258,000 barrels of crude oil (approximately 11 million gallons or 38,000 tonnes) poured into the Sound, creating waves of oil over three feet high (Mandala Projects, n.d.).

The spill threatened millions of migratory shore birds, sea mammals including whales, porpoises, sea otters and sea lions, and fish, particularly salmon and herring. Much of the food chain upon which the Sound's robust fishing industry was built was endangered.

Since the accident took place in navigable waters, the U.S. Coast Guard had overall jurisdiction for the cleanup activities. However, under an oil spill response plan, which was submitted as one of the conditions for the Trans Alaska pipeline<sup>1</sup>, Alyeska<sup>2</sup> was responsible for the initial response action. Exxon spearheaded the clean-up activities, which ultimately involved over ten thousand workers.

<sup>1</sup> The Trans Alaska pipeline carries oil from the oil fields of Alaska's North Slope to the port of Valdez for shipping.

<sup>2</sup> Alyeska is an industry association that represents the seven oil companies operating out of Port Valdez, of which Exxon is a member.

## The Impact Of The Spill And The Cost Of Damage

Despite all efforts to contain the spill, the oil slick spread to an area covering around one hundred square miles by the third day. Ultimately, the oil slick contaminated 1,200 miles of shoreline and covered an area of 1,000 square miles. As a consequence of the oil spill, restrictions were placed on herring and salmon fishing. Damages to fisherfolk were estimated in the hundreds of millions of dollars. Damages to the environment were estimated to have reached three billions dollars (Stager, 1995).



**Exxon Valdez incident, Prince William Sound, Alaska, March 1989. The Exxon Valdez and response vessels.**

Photo source: Office of Response and Restoration, National Ocean Service, National Oceanic and Atmospheric Administration

## The Trial

Exxon requested that most of the cases be consolidated into a mandatory punitive damages class suit.<sup>3</sup> The court granted the request and divided the trial into three phases to establish the following: 1) the tort committed; 2) amount of compensatory damage; and 3) amount of punitive damages, if any.

The first phase sought to answer the threshold question of whether or not the Captain of the *Exxon Valdez*, Joseph Hazelwood had acted recklessly. The Exxon Valdez was owned by the Exxon Shipping Company,

which was a wholly-owned subsidiary of Exxon and a determination that Hazelwood acted recklessly would apply to Exxon as well. If the actions had been "reckless," then the door to possible punitive damages would be opened.<sup>4</sup> The jury decided that Hazelwood and Exxon had acted recklessly. This decision led to a drop of close to 10% in the value of Exxon's stock.

The next phase of the trial determined the amount of compensatory damages that should be granted. The jury decided that Exxon should pay an amount of \$287 million as compensation for dam-

ages to around 10,000 fisherfolk. This amount would have been higher if Exxon had not settled with some claimants and if non-economic damages (such as those to the culture of Native Alaskans) were compensated. Exxon's stock rose after the decision in this phase of the trial because a higher award had been expected.

The claims of the United States and the State of Alaska were brought in their capacities as trustees of natural resources. Under various environmental statutes non-economic intrinsic values of such resources could be included in such claims. Moreover, the claims of private plaintiffs were considered under Federal maritime tort law which only allows recovery where there is a direct personal injury as property damage (Bardwick, 2000).

The third phase of the trial decided the amount of the punitive damages. The jury, clearly believing that Exxon should be strongly pun-

<sup>3</sup> Such a law would include all members of that class and is designed to avoid multiple punitive damages awards.

<sup>4</sup> Under U.S. law damages can be compensatory and/or punitive. Compensatory damages are designed to compensate loss or injury to victims while punitive damages are designed to punish perpetrators. Obviously there are many ways in which loss can be calculated but compensation is, at least in theory, limited by the dollar value of the actual injury sustained. Punitive damages, on the other hand, are intended to punish wrongdoers for their actions. Punitive damages can be, but do not have to be, far in excess of the amount that it takes to compensate the victim. Punitive damages are often awarded in types of cases where the actions of the perpetrator are deemed to be especially egregious. Because they are designed to deter future misconduct, punitive damages may be related to the nature and size of the defendant. In other words, a multibillion dollar company such as Exxon might face larger punitive damages than a smaller company could for the same actions.

ished, awarded punitive damages of \$5 billion in favor of over thirty-thousand fisherfolk and thousands of native Alaskan and Alaskan residents. This was the largest award of punitive damages in U.S. history. In addition, punitive damages were also assessed against Captain Hazelwood, although only in the amount of \$5,000. Despite the size of the award, Exxon's stock value actually rose because a larger verdict was widely anticipated. (For further information on the impact of the decisions on Exxon's stock value please see [www.american.edu/projects/mandala/TED/EXXON.htm](http://www.american.edu/projects/mandala/TED/EXXON.htm)).

## Forging A New Legal Regime In The US For Oil Spill Compensation

The images in the media of the Exxon incident galvanized the public and led to the enactment of important new laws in the United States.

### The Predecessor Law: Port And Waterways Safety Act

In the United States, the regulations on the operation of oil tankers and liability for oil spills fall under a combination of federal laws, state laws, and international agreements.

The law applicable at the time the oil spill took place was the Port and Waterways Safety Act (PWSA)<sup>5</sup>. Under the PWSA, the design and operating characteristics of oil tankers was made subject to federal rule. Title I of the PWSA authorized,

but did not require the Coast Guard to enact measures for controlling vessel traffic to protect navigation and the marine environment. Title II of the PWSA, however, required the Coast Guard to issue regulations on the design, construction and operation of tankers. In 1978, the PWSA was supplemented by the Port and Tanker Safety Act (PTSA), which required the Secretary of Transportation to establish regulations related to vessel management.

### US Federal Government Response: The Oil Pollution Act Of 1990

In the wake of the Exxon Valdez oil spill, the federal government enacted the Oil Pollution Act of 1990 (OPA), which governs oil tankers and spills. It supplements the PWSA and the PTSA, by

providing an overall legal framework covering the design and operation of oil tankers, the prevention and removal of oil pollution, and liability and compensation for oil spills. OPA was designed to provide a quick and federally coordinated response to oil spills. It also helps to ensure that innocent victims of oil spills are compensated.

### Liability and Defenses

The party responsible for a vessel or a facility from which oil is discharged is liable for: (1) specific damages from the discharged oil

<sup>5</sup> The PWSA is generally considered to have been enacted in response to the Torrey Canyon oil spill, which took place off the coast of England in 1967.

<sup>6</sup> In addition to this amount, Exxon incurred other costs in terms of corporate resources, legal and administrative expenses and loss of good will from the general public.

**Table 2. Cost of the Oil Spill to Exxon (in billion dollars)**

<b>Cleanup</b>	<b>2.5</b>
<b>Out of court settlement</b>	<b>1.3</b>
• Settlement with state and federal government for natural resource damage	1
• Settlement with individuals and business establishment (excluding court award of damages)	.3
<b>Court award of damages</b>	<b>5.287</b>
• Actual	.287
• Punitive	5
<b>Total Cost</b>	<b>9.087<sup>6</sup></b>

Source : Dolin, 1997.



(Table 2); and (2) removal costs consistent with the National Contingency Plan (Section 2702(a), OPA).

The OPA requires the maintenance of insurance coverage or other form of financial guarantee sufficient to meet the maximum amount of liability from the following: a) vessels over 300 gross tons

(except a non-self propelled vessel that does not carry oil as cargo or fuel) using any place subject to the jurisdiction of the US; b) vessels, which may not be within US jurisdiction but are within the exclusive economic zone of the US for the purpose of transshipping the oil to a place subject to US jurisdiction; and c) offshore facilities. In case of an oil spill, the parties

injured may recover directly from the insurer or guarantor (Section 2716 (f), OPA).

If a party, which appears to be responsible for the spill (such as an oil company) can prove that a third party was actually the cause of the spill, then the third party will be liable for such costs and damages (Section 2702(d), OPA).

**Table 2. Covered Damages (ed.)**

<b>Kind of Damage</b>	<b>Party Who Can Recover</b>
Natural resource damage	<b>United States trustee, State trustee, Indian tribe trustee, foreign trustee</b>
Economic loss for damage or injury to real or personal property	<b>Owner or lessee of the property</b>
Loss of subsistence use of natural resources	<b>Person who uses natural resources, which have been injured or destroyed, regardless of who owns the property</b>
Loss of revenues, e.g., taxes, royalties, rents, fees, or net profit shares as a result of injury, destruction, or loss of real property, personal property, or natural resources	<b>US government, state government, or any political subdivision</b>
Loss of profits or impairment of earning capacity due to the injury, destruction, or loss of real property, personal property, or natural resources	<b>Any claimant</b>
Damage for net costs of providing increased or additional public services during or after removal activities, including protection from fire, safety, or health hazards caused by a discharge of oil	<b>State government or a political subdivision of the state</b>

Source : Section 2702, Oil Pollution Act of 1990



**Exxon Valdez incident, Prince William Sound, Alaska, March 1989. Oil on the water near the shoreline of Prince William Sound.**

Photo source: Office of Response and Restoration, National Ocean Service, National Oceanic and Atmospheric Administration

*Oil Spill Liability Trust Fund*

The OPA also established an Oil Spill Liability Trust Fund for clean-up and uncompensated damages. As a general rule, reimbursement from the Fund is not available for claimants who are found responsible for the oil spill through gross negligence or willful misconduct. If such party, which first appears to be responsible, (and hence incurs initial clean-up costs) is exonerated (i.e., it is determined that a third party was actually responsible), then it may receive some limited compensation from the Fund.

**Response Of State Governments:  
The Washington State Laws**

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The OPA should be analyzed in the broader context of state legislation on the one hand, and international agreements on the other. The United States Congress was not the only legislative body that reacted to the Exxon Valdez oil spill. Some states in the U.S., and some other countries which the U.S. has agreements with, also responded to the Exxon Valdez spill. Differences between federal laws, state laws and international agreements have led to a number of disputes.

An example of overlapping legal regimes are between the OPA and the oil pollution laws passed by the State of Washington as a response to the Exxon Valdez spill (Wash. Rev. Code sections 88.46.010, et seq.; Wash. Admin. Code sections 317-21-010, et seq. (collectively "Washington state laws"). The Washington state laws sought to protect the Washington coast, which include the Columbia River estuary, the inland sea of Puget Sound, and part of the Strait of Juan de Fuca, which divides Canada from the U.S.

*Office of Marine Safety:  
Requiring Stricter Standards  
for Tanker Design*

The Washington state laws created an Office of Marine Safety, which was respon-

sible for establishing standards for oil spill prevention plans to provide the "best achievable protection (BAP) from damages caused by the discharge of oil." (Wash. Rev. Code Section 88.46.040(3)). The Office promulgated stricter standards on tanker design and operation. Under the Washington state laws, the penalties for failure to comply with such standards are fines and possible denial of entry into state waters.

*Intertanko Questioning the  
Constitutionality of the  
Office of Marine Safety*

International Association of Independent Tanker Owners (Intertanko), which represents 305 members who own or operate more than 2,000 tankers representing approximately 80% of the world's independently owned tanker fleet and an estimated 60% of the oil imported into the U.S., raised the question of constitutionality of the Washington state laws. There was no question about whether the Washington state laws would be effective in protecting its marine environment. The issue was whether the State of Washington had the right to promulgate such laws. Under the U.S. Constitution federal laws "shall be the supreme Law of the Land."

## *The Verdict of the US Supreme Court*

The U.S. Supreme Court, although acknowledging the historic role of states to regulate local ports and waters, essentially agreed with Intertanko's argument. The Supreme Court said that the question was whether the state laws were "consistent with the federal statutory structure, which has as one of its objectives a uniformity of regulation for maritime commerce." The Supreme Court ultimately held that "...the federal judgment that a vessel is safe to navigate United States waters prevail[s] over the contrary state judgment." The Court therefore held that a number of the provisions of the Washington state laws were pre-empted by U.S. federal laws. (*U.S. v. Locke, Intertanko v. Locke, 2000*).

In arguing against the Washington state laws, the federal government, perhaps prompted in part by a diplomatic note from thirteen ocean going nations, argued that the Washington state laws conflicted with U.S. obligations under international treaties and bilateral agreements. Specifically, the government argued that the state laws interfered with both the international right of "innocent passage" (in accordance with the United Nations Convention on the Law of the Sea) and with a bilateral agreement with Canada on traffic in the Strait of Juan de Fuca at the entrance to Puget Sound (the Agreement for a Cooperative Vessel Traffic Management System for the



**Large seal population on top of rocks on shoreline of Prince William Sound (March, 1989). The spill threatened millions of fish, migrating shore birds, sea mammals including whales, porpoises, sea otters and seals.**

Photo source: Office of Response and Restoration, National Ocean Service, National Oceanic and Atmospheric Administration

Juan de Fuca Region). Ultimately, the U.S. Supreme Court did not specifically address this issue because they decided that federal laws preempted the Washington state laws.

## **Conclusion**

Regardless of whether state laws, national laws, bilateral agreements or international treaties govern the responsibility for oil tanker regulation and oil spill liability, one fact remains clear. As the U.S. Supreme Court has noted, "when one contemplates the weight and immense mass of oil ever in transit by tankers, the oil's proximity to coastal life, and its destructive power even if a spill occurs far upon the open sea, international, federal, and state regulation may be insufficient protection." (*U.S. v. Locke, Intertanko v. Locke, 2000*).

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## The Incident

On May 3, 1996, the international community, at a diplomatic conference under the auspices of the International Maritime Organization (IMO)<sup>1</sup>, adopted the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS Convention). The objective of this article is to briefly outline the background for the adoption of this convention, as well as to draw attention to some of its principal features.

## Background

Over the past fifty years, significant changes have been made to the rules governing damage caused by ships. As a general proposition, torts committed by or with ships are governed by the same rules as other torts<sup>2</sup> when it comes to liability and compensation for the damage that they have caused, namely, the onus is on the claimant to prove negligence and the extent of the damage that resulted. For policy reasons, however, special rules have been developed for certain situations, in recognition of the fact that victims of such torts, often innocent bystanders having no connection with maritime transport, should be quickly and adequately compensated without incurring the exorbitant costs frequently associated with protracted litigation.

# Liability and Compensation for the Maritime Transport of Hazardous and Noxious Substances (HNS)

## The Historical Context

In the sixties, special rules were introduced in relation to nuclear incidents in a series of international conventions, including the adoption of the 1962 Convention on the Liability of Operators of Nuclear Ships.<sup>3</sup> Although the above-mentioned convention never entered into force for lack of ratifications, a new legal approach to liability was introduced.

The major oil pollution incident in 1967 caused by the ship wreck of the Liberian registered tanker, the *Torrey Canyon*, off the south west coast of the United Kingdom eventually led to the adoption of the new approach to liability under the International Convention on Civil Liability for Oil Pollution Damage, 1969 (CLC)<sup>4</sup>, and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (Fund Convention) (see related article in p. 20).<sup>5</sup> These two conventions, and their 1992 protocols, are strictly confined to oil pollution damage caused by tankers carrying persistent oil in bulk as cargo.

As early as 1969, certain quarters already saw that the CLC and Fund Convention were too limited and the necessity of developing a special regime of liability and compensation for damage caused by all noxious and hazardous cargoes transported by sea eventually

<sup>1</sup> This organization was originally called the Inter-governmental Maritime Consultative Organization (IMCO). It was renamed the International Maritime Organization (IMO) in 1985 in consequence of some amendments to the convention setting up the organization.

<sup>2</sup> A tort is a civil wrong that has caused damage to a person or property and is neither a breach of contract nor a crime (ed.).

<sup>3</sup> International Maritime Law Conventions, Stevens & Sons, 1983, Vol. 4, at p. 3019

<sup>4</sup> Ibid., Vol. 3, at p. 2468

<sup>5</sup> Ibid., Vol. 3, at p. 2495

became apparent.<sup>6</sup> In 1984, IMO attempted to adopt a convention on the subject but failed. At that point, the international community was not ready for the adoption of such a scheme. The matter was referred back to the IMO.

Another twelve years elapsed before IMO embarked on a second attempt to adopt a special regime for the maritime transport of hazardous and noxious substances at sea. In 1996, the HNS Convention was adopted. The new convention has 54 articles, combining in one instrument what, in the case of oil pollution by tankers, as noted above, was done in two instruments.

## Features of the HNS Convention

The three main aspects of the HNS Convention are discussed below, namely:

- 1) general provisions, including the scope of application of the HNS Convention;
- 2) the liability of the shipowner; and,
- 3) supplementary compensation available under the HNS Fund.



**Tanker Igloo Moon incident, Key Biscayne, Florida, November 1996.** Oil lightering operations in choppy seas involving the Igloo Moon chemical tanker. The barge company was very cautious about coming into these shallow coral-filled waters to conducting lightering.

Photo source: Office of Response and Restoration, National Ocean Service, National Oceanic and Atmospheric Administration

## General Features

### Substances Covered<sup>7</sup>

Hazardous and noxious substances covered by the HNS Convention include the following materials carried on board a ship as cargo:

- Oils listed in Appendix 1 of Annex I to the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the 1978 Protocol (MARPOL 73/78);
- Noxious liquid substances referred to in Appendix II of MARPOL 73/78 Annex II, carried in bulk;
- Dangerous liquid substances listed in Chapter 17 of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, 1983;
- Dangerous, hazardous, and harmful substances in packaged form covered by the International Maritime Dangerous Goods Code (IMDG Code);

- Liquefied gases as listed in Chapter 19 of the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, 1983;
- Liquefied substances carried in bulk with a flashpoint not exceeding 60°; and
- Solid bulk materials possessing chemical hazards covered by Appendix B of the Code of Safe Practice for Solid Bulk Cargoes when carried in packaged form that are covered by the IMDG Code (Art. 1.5, HNS Convention).

Residues of the abovementioned substances are also covered under the definition of hazardous and noxious substances. Most of the substances are identified by reference to other conventions and codes, such as the International Convention for the Prevention of Pollution from Ships (MARPOL) and various Codes developed under the auspices of the IMO because the HNS Convention was not intended to develop an independent, freestanding list of substances covered.

<sup>6</sup> See, for example, the draft resolution submitted by Brazil, Canada, India and Liberia to the 1969 Brussels Conference and reported in the Official Records, Inter-governmental Maritime Consultative Organization (IMCO), 1969, p. 61.

<sup>7</sup> Radioactive materials, which are covered by other instruments were excluded from the HNS Convention. Coal and other low-hazard bulk cargoes were also excluded. Many delegations argued that coal could not cause damage to the environment or outside the carrying vessel and its "inclusion will substantially increase transport and insurance costs, with serious impacts on the economies of a number of countries (United States Council for International Business, 1996)" (ed.).

## Definition of Damage

Claims for damages for the following items are covered under the HNS Convention:

- loss of life or personal injury on board or outside the ship carrying the hazardous and noxious substances caused by those substances;
- loss of or damage to property outside the ship carrying the hazardous and noxious substances caused by those substances;
- loss or damage by contamination of the environment caused by the hazardous and noxious substances, provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken; and
- the costs of preventive measures<sup>8</sup> and further loss or damage caused by preventive measures (Art. 1.6, HNS Convention).

To a large extent, the above definition is based on the definitions contained in the CLC and Fund Convention. The new regime is novel in one respect. It does not only cover pollution, it also covers damage caused by fire and explosion, which may in turn result in the loss of life and personal injury. The other conventions are confined to damage caused by contamination and as a general rule, exclude loss of life and personal injury.

“The HNS Convention applies to claims arising from the result of carriage of hazardous and noxious substances by sea. Damage by contamination of the environment, such as pollution damage, is confined to the territory, territorial sea and the exclusive economic zone.”



The tanker Asimi on fire in the Gulf of Oman in 1983.

Photo source: International Maritime Organization

## Scope of Application

The HNS Convention applies to claims arising from the result of carriage of hazardous and noxious substances by sea (Art. 4, HNS Convention). Damage by contamination of the environment, such as pollution damage, is confined to the territory, territorial sea and the exclusive economic zone. Other

damages, namely, loss of life or personal injury and loss or damage to property are not subject to such limitations. Similarly, “claims for preventive measures are covered, wherever taken” (Art. 3, HNS Convention).

At the time of ratification, a State may exclude from the application of the convention

<sup>8</sup> “Preventive measures” means any reasonable measures taken by any person after an incident has occurred to prevent or minimize damage (Art. 1.7, HNS Convention).

vessels not exceeding 200 gross tonnage, which carry HNS in packaged form, if they are engaged only in voyages between ports and facilities within the State. Neighboring States may conclude agreements to exclude the application of the convention in respect of similar vessels. It follows that claimants for compensation in respect of damage arising out of incidents caused by such vessels would not have the benefit of the supplementary compensation offered by the HNS Fund set up under the convention. This is particularly relevant for the states wherein the bulk of the trade is carried in small coastal ships (Art. 5, HNS Convention).

## Liability of the Shipowner

The HNS Convention establishes a two-tiered system. The first tier establishes a standard of strict liability for shipowners and a compulsory system of insurance so that claimants can bring their claim for compensation directly against the insurer<sup>9</sup>. Under this regime, fault need not be established and the shipowner can only escape liability on the basis of a very restricted number of defenses, e.g. where the accident has been caused by factors completely outside his control and when the shipper failed to inform the shipowner of the dangerous nature of



**TESTBANK chemical incident, Shell Beach, Louisiana, July 1980. Materials being placed in drums for disposal.**

Photo source: Office of Response and Restoration, National Ocean Service, National Oceanic and Atmospheric Administration

the cargo and as a consequence the owner has failed to take out the required insurance (Art. 7.2, HNS Convention).

The shipowner is entitled to limit liability. For ships not exceeding 2,000 tonnes, the maximum liability of the shipowner is 10 million special drawing rights (SDR) (US\$13.75 M)<sup>10</sup>. Thereafter, the limit is increased depending on the tonnage of the ship to a maximum of 100 million SDR (US\$137.5 M)<sup>11</sup> per incident. The exception to the limited liability rule is when it is proven that the intentional or reckless conduct of the shipowner caused the damage (Art.

9.2, HNS Convention). In such a case, the shipowner will have to pay the full extent of the damage.

## HNS Fund

In the early negotiations that followed the failure of the 1984 conference, it was accepted that any new version of the convention should contain a provision for a fund to provide supplementary compensation over and above what was available from the shipowner and the insurers. The drafters wanted the system patterned after the International Oil Pollution Compensation Fund (IOPC

<sup>9</sup> See Art. 12, HNS Convention.

<sup>10</sup> The unit of account used in CLC and Fund is the Special Drawing Right (SDR), which is an artificial "basket of currency serving as the International Monetary Fund's (IMF's) unit of account for a number of other international organizations. As of 27 June 2000, the exchange rate of the SDR was 1 SDR = US\$1.375. (ed.).

<sup>11</sup> The unit of account used when prescribing limits of liability are defined to be the Special Drawing Right (SDR) of the International Monetary Fund (IMF).

“The overriding problem that had to be resolved in connection with the establishment of a fund was the resistance of various industry sectors to contribute to one fund if such a fund was to be available to compensation for incidents outside their specific sector.”

Fund) established under the Fund Convention. This is the second-tier to the liability and compensation regime under HNS.

Drafting the provision for the HNS Fund, in particular devising a viable contribution system, proved to be one of the most difficult issues to resolve. The overriding problem that had to be resolved in connection with the establishment of a fund was the resistance of various industry sectors to contribute to one fund if such a fund was to be available to compensation for incidents outside their specific sector. They feared that they would be contributing to compensation due from other industry sectors, a form of cross-subsidization they were not prepared to countenance.

The compromise that eventually emerged is a provision for a fund with four separate accounts – an oil account, an LNG (liquefied natural gases) account, an LPG (liquefied petroleum gases) account and a general account for the rest of the substances covered by the convention (Art. 16, HNS Convention).

Similar to the IOPC Fund, the basic purpose for such a fund is to provide supplementary compensation for damages to the extent that compensation from the shipowner is inadequate (Art. 13, HNS Convention). Three grounds for payment of compensation from the Fund are specified below:

- no liability arises in respect of the shipowner because the owner has successfully raised one of the defenses;
- the shipowner is financially incapable of meeting the obligations under the HNS Convention; or
- compensation payable exceeds the shipowner's limit of liability (Art. 14, HNS Convention).

The HNS fund is subject to a limit of liability of 250 million SDR (US\$343.752M). This figure includes any amount recoverable from the shipowner and the insurers. This limit is the overall cap on compensation available under the new convention.



**Powell Duffryn chemical storage tank incident, Savannah, Georgia, April 1995. Cleanup workers vacuum chemicals from rocks on the bank of the drainage ditch near the facility.**

Photo source: Office of Response and Restoration, National Ocean Service, National Oceanic and Atmospheric Administration



In order to sustain the fund, the smooth functioning of the contribution system is necessary (Art. 17–19, HNS Convention). This is based on the proposition that contributions will only be levied “as required to make payments by the accounts in question” (Art. 17.1, HNS Convention). In effect, each account looks after compensation in respect of incidents caused by the substances covered by that account. Administrative costs are shared as the Assembly of the Fund may decide (Art. 17.4, HNS Convention). There may also be some sharing between accounts where an incident causing damages involves substances falling under different accounts and the resulting damage is not easily separable (Art. 17.5, HNS Convention).

The contribution is based on quantities of cargo received in contracting States in any calendar year over a basic minimum of 20,000 tonnes. The obligation to pay the contribution is placed on receivers, being the persons who receive the cargo on discharge in the ports and terminals of a contracting State. The one exception to this rule about the payment of contribution by the receiver is in the case of the LNG account, where the obligation is placed on the person who, “immediately prior to its discharge, held title to an LNG cargo (Art. 19.1 (b), HNS Convention).”

Crucial to the whole operation of the contribution system is the submission of reports naming eligible receivers and giving quantities of contributing cargo received in the preceding calendar year, which information will then be used by the Fund Secretariat to calculate contributions to be paid and approved by the Assembly (Art. 21, HNS Convention). The obligation for providing such lists and information is placed on contracting States. It is interesting to note, however, that the task of collecting the contribution essentially rests with the HNS Fund, which, in the case of default, must take appropriate action, including court action, to collect the contributions.

## Conclusion

Four years have passed since the adoption of the HNS Convention.<sup>12</sup> To date, only one state has ratified the treaty, namely, the Russian Federation. There is no doubt that implementation of the convention poses challenges, most notably how to put in place procedures, which will make the contribution system for the HNS Fund work effectively and fairly. And yet everyone realizes that it will be difficult to explain this lack of

implementation should there be a major incident, especially if it involves human casualties.

In recognition of the urgency of this situation, the Legal Committee of the IMO has established a correspondence group aimed at facilitating the exchange of information between interested states in identifying problems and finding solutions. The object is to bring the new convention into force as soon as possible and thereby to avoid the development of regional or national schemes, which can never be as generous or as cost effective as a broadly based international scheme. ■

## References:

International Convention on Civil Liability for Oil Pollution Damage, 1969 (CLC)

International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (Fund Convention)

International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (HNS Convention). See <http://www.uio.no/~erikro/WWW/HNS.html>.

International Monetary Fund. n.d. Users' guide to the SDR: a manual of transactions and operations in SDRs. <http://www.imf.org/external/pubs/FT/usrgsdr/users01.htm#5>

United States Council for International Business. 1996. Developments in intergovernmental organizations of interest to the business world. <http://www.uscib.org/news/igov17n3.htm>

<sup>12</sup> The HNS Convention “shall enter into force eighteen months after the date on which the following conditions are fulfilled: (a) at least twelve States, including four States each with not less than 2 million units of gross tonnage, have expressed their consent to be bound by it, and (b) the Secretary-General has received information in accordance with article 43 that those persons in such States who would be liable to contribute pursuant to article 18, paragraphs 1(a) and (c) have received during the preceding calendar year a total quantity of at least 40 million tonnes of cargo contributing to the general account (Article 46, HNS Convention)” (ed.).

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## Background to the BASEL Convention

Technological development has brought about increased generation of wastes globally. As of 1994, global generation of hazardous wastes was over 400 million tons per annum. A big portion crosses national boundaries, traversing through land and sea. A large volume is being sent from industrialized countries to developing countries or countries with economies in transition. With the increasing costs of disposal of hazardous waste in developed countries, industries have resorted to the transport of the waste to developing countries for final disposition, thus, shifting the hazards to the present and future generations of developing countries. East Asian countries were included in the list of destination of the hazardous wastes. Adding to the problem is that developing countries have limited administrative and technical capacity to properly dispose of the wastes. Realizing the urgent need to prevent the problem from escalating, the international community adopted the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) on March 22, 1989. The Basel Convention entered into force on May 5, 1992.

# BASEL Protocol on Liability and Compensation

While the goal of the Basel Convention is the reduction of the generation of hazardous wastes and the prevention of export of hazardous wastes to developing countries, the reality remains that at the present time transboundary movement of hazardous wastes continues. Hence, the existing regulatory system should be supported by a system of liability and compensation. The Basel Convention recognized the risks involved in the transboundary movement of hazardous wastes but did not itself provide for a system on liability and compensation.

However, the Basel Convention required the parties to cooperate in the adoption of a protocol, setting out appropriate rules and procedures on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes (Article 12, Basel Convention).

## Main Features of the BASEL Convention

- obligation of states to reduce generation of hazardous wastes;
- protects sovereign rights of States to ban import of hazardous wastes into their territory;
- regulates the import and export of hazardous wastes; and
- requires the criminalization of the transboundary movements of hazardous wastes carried out in contravention of the provisions of the Basel Convention.

Concomitantly, the Basel Convention left it for the Conference of the Parties (COP) to decide on the establishment of a revolving fund to assist on an interim basis in case of emergency situations to minimize damage from accidents arising from transboundary movements of hazardous wastes and other wastes or during the disposal of those wastes (Article 14 (2), Basel Convention).

## Protocol on Compensation and Liability

Pursuant to the mandate of the Basel Convention, the Fifth Conference of the Parties to the Basel Convention, held from December 6 to 10, 1999 at Basel, Switzerland, adopted the Protocol on Compensation and Liability. The new protocol has not yet taken into effect and will enter into force on the ninetieth day after the deposit of the twentieth instrument of ratification.

### Scope of Application

The Protocol applies to all damages due to an incident occurring during the transboundary movement of hazardous wastes and their disposal, including illegal traffic, from the point where the wastes are loaded on the means of transport in an area under the national jurisdiction of a State of export.

One of the controversial provisions in the Protocol is the provision



### Brazil delegate and Chair of the Legal Drafting Group, Everton Vargas, presents the final text of the Protocol on Liability and Compensation

Photo courtesy of IISD/Earth Negotiations Bulletin, Ken Tong (Photographer).

that the Protocol shall not apply to damage due to an incident occurring during a transboundary movement of hazardous wastes and their disposal pursuant to a bilateral, multilateral or regional agreement or arrangement concluded and notified in accordance with Article 11 of the Protocol if:

- the damage occurred in an area under the national jurisdiction of any of the parties to the agreement;
- there exists a liability and compensation regime, which is in force and is applicable to the damage resulting from such a transboundary movement and fully meets or exceeds the objectives of this Convention;
- the Party in which damage occurred has notified the Depositary of the non-application of the Protocol to any damage occurring in an area under its national jurisdiction; and
- Parties have not declared that the Protocol shall be applicable.

This was a controversial provision because some developing countries and NGOs were of the opinion that this was an escape clause, which can defeat the purpose of the Protocol. Some countries may claim the non-coverage of the incident because of the operation of the exception.

### Liability of Parties

The liability regime ensures that at whatever point in the transboundary movement, there will be a party who can be held liable for damages. The Protocol provides different kinds and levels of liability for different parties, namely, strict and fault liability.

#### Strict Liability

Any person required to notify under the Basel Convention, States, importers and disposers can be held strictly liable for damages in situations



### The Protocol is accepted by Philippe Roch, President of the COP, to much applause from the floor.

Photo courtesy of IISD/Earth Negotiations Bulletin, Ken Tong (Photographer).

**Table 1. Parties Strictly Liable for Damages as a Result of Transport Hazardous Waste**

Party	Situation	Duration of Liability
Person who notifies in accordance with Basel Convention	In general	until the disposer has taken possession of the hazardous wastes and other wastes
State	If no notification was made under the Basel Convention or if the State makes the notification	until the disposer has taken possession of the hazardous wastes and other wastes
Disposer	For wastes which are considered hazardous by virtue of a legislation of the country of import, export or transit	no timeframe
Importer	If the waste is classified as hazardous in the State of import but not the State of export	until the disposer takes possession, if the State of import is the notifier or if no notification has taken place. Thereafter, the disposer shall be liable
Person who notified of the transboundary movement	When a transboundary movement of hazardous wastes or other wastes, which had the consent of concerned States, and the movement was not completed, all waste is re-imported	until the wastes are taken into possession by the exporter, or by the alternate disposer
Person who reimports	In case of illegal traffic which requires re-importation, the waste shall be reimported	until the wastes are taken into possession by the exporter, if applicable or by the alternate disposer

specified in the Protocol. The Protocol makes these parties liable for damage regardless of absence of fault (Table 1).

### *Fault Liability*

Despite its reliance on the concept of strict liability, the new Basel Protocol does not disregard fault liability. Hence, persons who contributed or caused damage by lack of compliance with the provisions implementing the Convention or by his or her wrongful intentional, reckless or negligent acts or omissions are likewise liable.

### *Solidary Liability*

Considering that there may be different parties liable for any single incident, the Protocol provides that each person is solidarily liable for the damages. This means that the victims can claim against any liable party subject to the right of such liable party to reimburse from other liable parties.

### *Limits of Liability*

Similar to the liability for oil spills from tankers, the Protocol provides for financial limits of liability (Table 2).

One of the issues debated upon in the preparation of the Protocol is the provision on

**Table 2. Financial Limits of Liability<sup>1</sup>**

Quantity of Waste	Limit of Liability
5 tonnes	1 M SDR
Above 5 – 25 tonnes	2 M SDR
Above 25 – 50 tonnes	4 M SDR
Above 60 – 1,000 tonnes	6 M SDR
Above 1,000 – 10,000 tonnes	10 M SDR
Above 10,000 tonnes	Additional 1 SDR for each additional tonne up to a maximum of 30 million SDR

Source: Based on Annex B of Basel Protocol on Liability and Compensation

<sup>1</sup> The unit of account used in the Basel Protocol is the Special Drawing Right (SDR), which is an artificial "basket of currency serving as the International Monetary Fund's (IMF's) unit of account for a number of other international organizations. As of 27 June 2000, the exchange rate of the SDR was 1 SDR = US\$1.375.

financial limits of liability. Some groups claim that the damage is not just dependent on the quantity of the waste but on the degree of toxicity. In response to this concern, the Protocol provides for review mechanisms on the financial limits taking into account the potential risks posed to the environment, the nature, quantity, and hazardous properties of the waste.

### Commingling of Hazardous and Non-Hazardous Wastes

If the shipment includes both wastes covered and wastes not covered under the Basel Convention, a person shall be liable in proportion to the contribution made by the hazardous wastes covered by the Protocol, unless it is not possible to distinguish, in which case, all damage shall be covered by the Protocol.

### Contributory Fault

Compensation may be reduced or disallowed if the claimant is found to have a contributory fault in the incident.

### Statute of Limitations

All claims must be filed with a competent court with ten years from date of incident and within five years from knowledge of damage. This is a double requirement. Hence, a claim must be denied even if the claim is filed within the ten year period but more than five years after the claimant had knowledge of the damage.

### Financial Guarantees

Similar to the CLC, parties which may become liable in case of an incident are required to establish during the period of time limit of liability, insurance bonds or other financial guarantees. In situations where the State may become liable, the State may comply with this requirement by a declaration of self-insurance. This document reflecting coverage of liability is required to accompany notification done in accordance to the Basel Convention. Direct claim may be asserted against persons providing insurance, bonds or other guarantees.

### The Emergency Fund

The Basel Convention exhorts the COP to establish a voluntary fund to assist on an interim basis in case of emergency situations to minimize damage from accidents arising from transboundary movements of hazardous wastes and other wastes or during the disposal of those wastes (Article 14, Basel Convention).

In response to this, COP-5 of the Basel Convention decided to enlarge the Basel Trust Fund on an interim basis to assist Contracting Parties that are developing countries or countries with economies in transition in cases of emergency and compensation for damage resulting from incidents arising from transboundary movements of

“If the shipment includes both wastes covered and wastes not covered under the Basel Convention, a person shall be liable in proportion to the contribution made by the hazardous wastes covered by the Protocol, unless it is not possible to distinguish, in which case, all damage shall be covered by the Protocol.”

wastes and their disposal. Upon request, the Secretariat may use the contributed funds to assist such a Party in order to: 1) estimate the magnitude of damage; 2) prevent or mitigate the damage; 3) help find assistance; 4) assist such Party in building capacity and in putting in place measures to prevent accidents and damage to the environment caused by the transboundary movement and disposal of waste (UNEP/CHW.5/CRP.14).

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# NEWS

## IMO Secretary General Visits PEMSEA

**"The Seas of East Asia must be saved".**

This was the core of the speech delivered by the Secretary General of the International Maritime Organization (IMO), Mr. William A. O'Neil on January 22, 2000. Visiting the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) based in Manila, Mr. O'Neil said that we must not lose track of the objective of lessening pollution in the water and the atmosphere, especially in East Asia.

Citing the magnitude of the tasks ahead for PEMSEA, Mr. O'Neil is optimistic that with the able leadership of the PEMSEA Management, its 10 objectives will be met, specifically that of lessening pollution. He based this optimism on the results of the GEF Pilot Phase, Marine Pollution Prevention and Management in the East Asian Seas (MPP-EAS).

Aware of the political, financial and sustainability problems involved in implementing an environment project in 11 countries, Mr. O'Neil was happy and appreciative of the efforts of all those involved in the project. He was equally satisfied with the support of the Government of the Philippines. The Secretary General emphasized that in addition to national leadership, support of local authorities is also imperative for a successful environment management project. He also stressed the importance of cooperation from the stakeholders in ensuring environmental integrity and safety.

PEMSEA is being hosted by the Philippine Department of Environment and Natural Resources.



Left to right: Terence Jones, UNDP Resident Representative (Philippines), Mario Roño, Undersecretary, Philippine Department of Environment and Natural Resources, IMO Secretary General, William O'Neil, and Dr. Chua Thia-Eng, PEMSEA Regional Programme Director

## Strong Civil Society Participation in Environmental Management at Bali: Over Half A Million Dollars in Local Commitment

Bali, Indonesia is a world-class coastal tourism destination. Tourism plays a very important role in the economic development of Bali Island contributing around 31 % of its total GDP. The Bali Provincial Government and the National Environmental Impact Assessment Agency, in partnership with PEMSEA have launched an ICM Demonstration Site in Bali to ensure the conservation and sustainable use of tourism resources in Bali, taking into account the specific culture, customs and traditions in coastal resource use and management.

To this end, a project inception workshop was held on March 13-14, 2000, with participants coming from national and provincial government, private sector, academe, and grass-roots organizations. The Indonesian government has shown its commitment in managing the coastal environment of Bali by committing US\$ 520,000 as counterpart funding.

# PEMSEA Stakeholder Consultation in Manila Bay

As part of consensus building in Manila Bay (Philippines), PEMSEA's Manila Bay Environmental Management Project (MBEP) commenced a series of consultations with national government agencies and other stakeholders in the Manila Bay area.

The activity was designed to generate awareness on the proposed Manila Bay project, to encourage participation and to ensure the long-term commitment of government agencies and other stakeholders. The main points discussed included objectives, strategies and methodology, interagency coordination, intersectoral cooperation,

ongoing projects, and project risks. Philippine government agencies that have been consulted include the Department of Tourism (DOT), Board of Investments (BOI), Department of Foreign Affairs (DFA), Philippine Ports Authority (PPA), and Department of Health (DOH), to name a few.

The Philippine Department of Environment and Natural Resources (DENR) committed to host the Project Management Office (PMO) of the MBEP. Other agencies consulted likewise committed to share information and provide staff support to the project.



PEMSEA staff consult with National Capital Region Stakeholders on Manila Bay Environmental Management Project.



Pollution threatens the health of the coastal population in Manila Bay. According to a report of the Philippine Department of Health, there have been 397 cases of paralytic shellfish poisoning from 1991-1998.

## Bataan Coastal Care Program: A First for the Region

Environment and business are now partners in efforts to save the Bataan coasts in the Philippines. This recognition seals the joint undertaking between the Province of Bataan and the private sector represented by Petron Corporation in a Memorandum of Agreement, which was signed on February 10, 2000.

The agreement calls for the development and implementation of an integrated coastal management (ICM) program for the Bataan coastal area. The United Nations Development Program (UNDP) and the International Maritime Organization (IMO), were co-signatories to the agreement. Bataan is unique in that it is the first local government-initiated ICM site.

The private sector, represented by Petron Corporation and the Province of Bataan, committed to provide adequate resources for the development and implementation of the ICM program. PEMSEA in turn committed to provide technical and management advice to the partners. Signatories to the MOA were Bataan Governor Leonardo B. Roman and Vice-governor Rogelio G. Roque; Petron Corporation Chairman and CEO Jose A. Syjuco Jr. and President Khalid A. Al-Falih; PEMSEA Regional Programme Director Dr. Chua Thia-Eng; and UNDP Resident Representative Terence Jones. The MOA signing was witnessed by Secretary Antonio Cerilles of the Department of Environment and Natural Resources; Director Felizardo Virtucio, Jr. of the Agricultural Staff of the National Economic and Development Authority; and Atty. Edilberto Pizarro, President of the Rotary Club of Balanga, Bataan.



Signatories and witnesses (from left) Felizardo Virtucio Jr. (NEDA Representative), Dr. Chua Thia-Eng (Regional Programme Director, PEMSEA), Jose A. Syjuco (Chairman and CEO, PETRON Corp.), Secretary Antonio Cerilles (Philippine Department of Environment and Natural Resources), Governor Leonardo B. Roman (Province of Bataan), Khalid A. Al-Falih (President, PETRON Corp.), Terence Jones (Resident Representative, UNDP Philippines) and Atty. Edilberto Pizarro (Rotary Club, Balanga, Bataan) during the MOA signing last February 10, 2000.

# NEWS

THE REGION



## Sihanoukville (Cambodia) Signs MOA with IMO

The MOA between the Municipal Government of Sihanoukville and IMO on the implementation of an integrated coastal management (ICM) project in Sihanoukville was signed June 12, 2000. The government has committed to provide counterpart support in cash and in kind equivalent to US \$596,500.



A site inspection of Stung Hau District, Sihanoukville, Cambodia.

## Selangor (Malaysia) Government to Co-Finance ICM Project



A five-year budget RM 1,869,200 (approximately US\$505,000) has been allocated by the State Government of Selangor as counterpart funding for a national integrated coastal management (ICM) demonstration project in Klang.

The Klang area, home to the largest port in Malaysia, is a major industrial, commercial and shipping center. Selangor has undergone rapid economic development, with a growth rate of 9% per annum in 1997. It now suffers from the negative impacts of economic development as a result of pollution, sand mining, erosion and reclamation of mangrove swamps. A Memorandum of Agreement, together with the workplan and budget is currently being developed between PEMSEA and the Selangor Government.

Sihanoukville is facing many environmental problems that include watershed destruction from fishing habitat degradation and the untreated discharge of sewage and hazardous wastes.

The primary objective of the ICM project is to enhance the capability of the Municipal Government and the local communities in applying integrated approaches to managing coastal lands and waters particularly in preventing and reducing marine pollution from land- and sea-based sources. During the signing ceremony, H.E. Dr. Ith Dethola,

Governor of the Municipality of Sihanoukville, gave the opening address, in which he indicated his political support to the project. This was followed by the address of Undersecretary Eam Ra of the Ministry of Environment, expressing support from the ministry to make Sihanoukville a successful ICM demonstration site. PEMSEA Regional Programme Director, Dr. Chua Thia-Eng, also gave an address providing a background on PEMSEA and challenged the political leadership and stakeholders to make Sihanoukville a successful project.

## Safety at Every Port

**PEMSEA conducted the first and follow-on training workshop on Chemical Spill Prevention and Port Safety Audit at two selected sites, Port of Manila (Philippines) and Port Klang (Malaysia).**

During the workshops, participants were introduced to a generic port audit manual being developed by PEMSEA and IMO which was field-tested during the port auditing exercise. The manual provided a checklist on the requirements of international instruments on dangerous goods handling, storage and

transport such as: a) IMO Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas, 1995, b) Code of Practice for the Safe Loading and Unloading of Bulk Carriers, 1998, c) SOLAS '74 Convention, Chapter 7, and d) APELL in Port Areas.

Following the first training workshop in January 2000, audit teams were organized and tasked to conduct a full-scale audit of selected offices/organizations involved in handling and transport of dangerous cargoes in the respective ports.

*Continued on page 50*



## Vietnam Starts Up ICM Project



Vietnam launched a national integrated coastal management (ICM) demonstration project at Danang with the signing of a Memorandum of Agreement with IMO on June 7, 2000 at a ceremony held at the Bach Dang Hotel in Danang, Vietnam.

Dr. Chua Thia-Eng, PEMSEA Regional Programme Director, signed on behalf of IMO

while Mr. Hoang Tuan Anh, the Vice-Chairman of the People's Committee of Danang signed on behalf of the Vietnamese government. The signing ceremony signals the start of an effort to address the numerous environmental issues and problems of the municipality. Danang faces environmental problems such as coastal inundation, marine pollution, habitat loss, biodiversity reduction and overfishing.

The ceremony, attended by 51 representatives from local and national government agencies, was a culmination of months of preparation and dialogue with local stakeholders. Mr. Hoang Tuan Anh gave the opening address in which he expressed his appreciation of PEMSEA's selection of Danang as one of its ICM demonstration sites. Dr. Chua Thia-Eng followed Mr. Anh's address and expressed his optimism for the Danang Project's success.

Immediately after the ceremony, an ICM inception workshop took place at the Department of Science, Technology and Environment which lasted from June 7 - 9, 2000. The workshop participants evaluated the state of the coastal environment in Danang and identified key management issues, challenges and opportunities. The roles and responsibilities of the participating institutions were included in the discussions and the workshop also initiated the development of a coastal strategy towards the sustainable use of coastal resources in Danang.

## DPR Korea Prepares ICM Initiative



PEMSEA held initial consultations in early March 2000 with the government officials and local stakeholders in the Democratic People's Republic of Korea with the goal of establishing an ICM Demonstration site in the Nampo region.

Nampo is a major maritime port and fishery production base in the country. Through the various discussions, stakeholders recognized that the ICM demonstration project provides an opportunity to enhance local capacity in managing coastal lands and waters. The key objectives of the project include the conservation of critical coastal habitats and prevention of marine pollution. A Memorandum of Agreement has been drafted and is now under review. National counterpart funding of an estimated US\$ 696,000 is proposed.

## Thailand Gearing Up for ICM Demonstration Project



A national integrated coastal management (ICM) demonstration site in Chonburi, Thailand is being prepared as a model for the country in coastal and marine environment management.

The local government units of the Sri Racha and Laem Chabang of Chonburi Province have pledged in-kind contributions in the amount of US\$ 287,394 for the ICM initiative.

An inception workshop was conducted on 25-26 May 2000. Representatives of various stakeholders, including national and local government agencies, non-government organizations, academe and private sector, attended the workshop. The inception workshop discussed the strategies to address the priority environmental issues of the area within the ICM framework through partnerships among stakeholders and sharing of information and resources. The coastal and marine environment of Chonburi is currently facing numerous environmental problems such as habitat destruction, overfishing, red tide occurrences and marine pollution from industrial wastes

The workshop produced a draft action plan which focused on the key issues and constraints to the integrated management of the marine and coastal areas of Chonburi, and the short-term actions that were needed in order to implement the ICM project.

## Safety...

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A follow on workshop was held in June 2000 (Manila) and another in July 2000 (Port Klang). The workshop evaluated the audit findings of the team including the proposed corrective actions for the nonconformities that were identified. The audit reports formed the basis for the action plan that was developed by the participants during the workshop. The staff capability for port safety audit was developed during the two-part training workshop, pre- and post-audit, sponsored by IMO-PEMSEA in cooperation with the Philippine Ports Authority and Port Klang Authority. Captain Hans-Juergen Roos, Port/Marine/Management Consultant and Harbormaster at Bremen, Germany oversaw the audit process and evaluation.

The unique feature of the training workshop was that it provided the venue for the public (port authority) and private sector (port operators) to discuss issues and concerns relevant to the handling and transport of dangerous cargoes and develop workable action plans collectively. With the combined efforts of key personnel from both sectors, a partnership was initially established to protect and manage the coastal and marine resources of the two selected sites.

The training workshops provided the respective ports with a team that has the capacity and experience in port safety audit. Lessons learned from these workshops will be echoed in other ports within the region.



PEMSEA Trainees visit Batangas ICM demonstration site as part of the Regional Training Course on the Development, Implementation and Management of Coastal and Marine Environmental Projects (PDM).

## PEMSEA Trains Project Managers

Thirty-one participants from six national ICM demonstration sites and two pollution hot spot locations completed a four-week (April 3–29) Regional Training Course on the Development, Implementation and Management of Coastal and Marine Environmental Projects.

In addition to giving site managers and personnel the knowledge and skills necessary to establish and manage coastal and marine environmental projects, the training provided a basic understanding of the ICM framework, environmental risk assessment, integrated information management system (IIMS), geographic information system (GIS), resource valuation and natural resource damage appraisal, pollution liability and damage claims,

environmental investments and financing mechanisms, and coastal and marine environmental monitoring.

To complement the lectures, field trips were organized to observe developments in Manila Bay, one of the pollution hot spots projects under PEMSEA, and Batangas Bay, a national ICM site and regional training center. The second leg of the training brought the participants to Xiamen ICM demonstration site, PR China with visits to Xiamen University, the coast of Xiamen, Yuandang Lake and a sanitary landfill. The purpose of the field trips was to show the benefits of ICM, particularly in bringing together the various stakeholders to combat environmental and resource degradation in their areas.

### Errata

*The spelling of the reference "Cisin-Sain and Knecht, 1998" found on pages 3, 6 and 7 of Tropical Coasts Vol. 6, No. 2 should be corrected to Cicin-Sain and Knecht, 1998.*



Port personnel of Port Klang (Malaysia) are trained for port auditing.

## Facilitating...

from page 11

admissible or the appropriate level of settlement. This is the responsibility of the P&I Club and ultimately the government delegations within the Executive Committee and Assembly of the 1992 Fund.

### Conclusion

Since the mid-1970s when the Civil Liability and Fund Conventions first entered into force, compensation equivalent to hundreds of millions of US dollars has been paid to the victims of oil spills in the States that have ratified them, without the need in the vast majority of cases for recourse to litigation. The system is therefore highly successful. To be in a position to benefit from the system in the event of a spill of persistent oil from a tanker, all States that have not done so already should ratify the 1992 Conventions without delay. In order to obtain prompt compensation after an incident all potential claimants should follow the claims admissibility guidelines and advice that is freely available. ■

### References :

International Oil Pollution Compensation Fund 1992. 1998. Claims Manual. <<http://www.iopcfund.org/92CLAIM.PDF>>.

Resolution No. 3 adopted by the Assembly of the Fund in 1980.

IPIECA/ILOPE. 2000. Oil Spill Compensation: A Guide to the International Conventions on Liability and Compensation for Oil Pollution Damage. <<http://www.itopf.com/comppres.pdf>>

## BASEL Protocol...

from page 45

### Overlap with other Conventions

The Basel Protocol does not apply in case of conflict with other liability or compensation agreements. One Convention where there is a likely overlap is the HNS Convention. The HNS Convention regulates carriage by sea of hazardous and noxious substances. Within the scope of the application of the HNS Convention, other treaties should be excluded. No other treaty can attach additional liability to those made liable under the HNS Convention, namely, the shipowner and the cargo interests contributing to the HNS Fund (see related article on page 36). Thus, the Basel Convention does not provide liability for the shipowner nor the cargo interests. Instead, liability is channeled to persons such as the generator, notifier, exporter, etc., avoiding the overlap with the HNS Convention. (Ad Hoc Working Group of Legal and Technical Experts to Consider and Develop a Draft Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, 1999)

### Moving Forward Towards a Fund

COP-5 of the Basel Convention has successfully adopted the first step in establishing a regime for compensation and liability for damages as a result of the transboundary movement of hazardous wastes. The objective of the Protocol is to make exporters and disposers liable for any damage that may occur during the operations and to make it compulsory for these exporters and disposers to be insured against it. The next step is to establish a Fund for cases where there are no parties liable and when the damage is beyond the limits of liability of the parties. The Protocol itself mandates the COP to continue the review of the need for improving existing mechanisms and establishing a new mechanism. This may be a more difficult step for the COP to take because stability of the fund and requires more than voluntary contributions from the parties. Hence, the question posed to the next Conference of the Parties is whether they will agree to a fund based on mandatory contributions. ■

### References :

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. 1989. U.N. Doc. UNEP/WG. 190/4.

Basel Protocol on Liability and Compensation.

Ad Hoc Working Group of Legal and Technical Experts to Consider and Develop a Draft Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, 10<sup>th</sup> session, August 30-September 3 1999, Geneva, Switzerland.

## CLC and Fund...

from page 26

However, the initial number of countries which have ratified the conventions is enough to show advantages that they have and to persuade the non-members to henceforth join.

### Conclusions and Recommendations

Despite the limitations, the CLC/FUND system is the best at this point in time, and has a very good potential for being advantageous to the member countries in the region (MPP-EAS/PEMSEA, 1999). However, being members should not give a false sense of security to the countries. Members need to undertake efforts to properly implement these conventions in their domestic jurisdiction. To ensure the efficiency and efficacy of the CLC/FUND system, national implementation should be complemented by regional cooperation. ■

### References :

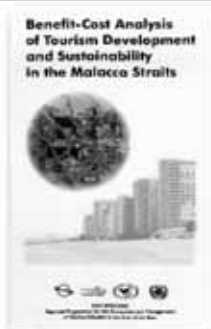
Etkin, D. S. 1997. Oil spill in Pacific Asia: Over 220 million gallons spilled since 1965. Oil Spill Intelligence Report.

Hamzah, B. A. and M. N. Basiron. 1997. Funding a partnership for safer navigation and a cleaner environment in the Straits of Malacca: some preliminary thoughts, p. 87-103. In S. Adrian Ross, C. Tejam and R. Rosales (eds.) Sustainable financing mechanisms: public sector - private sector partnership. MPP-EAS Conference proceedings No. 6, 352 p.

MPP-EAS. 1999. Natural Resource Damage Assessment and the Malacca Straits. MPP-EAS/Info/99/191. GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (MPP-EAS), Quezon City.

MPP-EAS/PEMSEA. 1999. Regional Consultative Workshop on the Recovery of Oil Spill Clean-Up Costs and Pollution Damage Claims. MPP-EAS Workshop Proceedings No. 13/PEMSEA Workshop Proceedings No. 2. GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (MPP-EAS)/Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), Quezon City.

Morgan, J. and M.J. Valencia (Eds.). 1983. Atlas for Marine Policy in Southeast Asian Seas. University of California Press, Berkeley.



## Benefit-Cost Analysis of Tourism Development and Sustainability in the Malacca Straits

**US\$ 12.00** (MPP-EAS Technical Report number 17, 1998, 44 p.)

Postage : Asia: +US\$ 1.50 Outside Asia: +US\$ 2.50

In the Malacca Straits, coastal tourism is a major industry. This study shows the costs and benefits of management actions for resource preservation and pollution prevention, particularly those which affect tourism. The economic analysis shows positive net returns for coral reef protection and beach zoning programs.



## Malacca Straits: Refined Risk Assessment

**US\$ 15.00** (MPP-EAS Technical Report No.23/PEMSEA Technical Report No. 1, 1999, 89 p.)

Postage : Asia: +US\$ 1.50 Outside Asia: +US\$ 2.50

The refined environmental risk assessment for the Malacca Straits delves into two targets of interest, namely the Straits ecosystem and the health of the people living in the coastal areas. The report provides information on the rationale, methodology and results of the work, along with recommendations for improving risk assessment as a management tool in the Malacca Straits.



## Water Use Zoning for the Sustainable Development of Batangas Bay, Philippines

**US\$ 15.00** (MPP-EAS Technical Report No.25/PEMSEA Technical Report No. 3, 1999, 50 p.)

Postage : Asia: +US\$ 1.50 Outside Asia: +US\$ 2.50

The issues arising from the multi-layered claims over and multiple uses of Batangas Bay, are analyzed in this study. The rationale for water use zonation is built upon the need to address issues and to avert possible escalation into open conflicts or disasters. Linkages between water use zoning and land use plans of the coastal communities are highlighted.



## Manual on Economic Instruments for Coastal and Marine Resource Management

**US\$ 16.00** (MPP-EAS Technical Report No. 19, 1999, 89 p.)

Postage : Asia: +US\$ 1.50 Outside Asia: +US\$ 2.50

Current issues related to coastal and marine environments and prevailing economic policies are presented in this manual. Due to increasing environmental problems, there is a need to introduce a system that will give people an incentive to search for ways to conserve resources and reduce waste. Examples of economic or market-based instruments and key design issues are discussed to help countries develop implementation strategies.



## Natural Resource Damage Assessment Manual

**US\$ 18.00** (MPP-EAS Technical Report No. 22, 1999, 121 p.)

Postage : Asia: +US\$ 2.75 Outside Asia: +US\$ 4.25

Oil spills and other discharges of marine pollutants can result in extensive damage to the coastal and marine environment. This manual reviews the concepts and stresses practical applications and procedures that can be used to implement Natural Resource Damage Assessment methods. Examples and exercises illustrate these methods.

## Sharing Lessons and Experiences in Marine Pollution Management

(MPP-EAS Technical Report No. 20, 1999, 94 p.) **US\$ 10.00**

Postage : **Asia: +US\$ 2.75 Outside Asia: +US\$ 4.25**

In 1993, the East Asian Seas nations launched a regional initiative aimed at addressing the social, environmental and economic consequences of the continuing trend of degradation of their regional sea. This publication shares the lessons learned from the initiatives of the Regional Programme on Marine Pollution Prevention and Management in the East Asian Seas. Lessons include information on creating sustainable marine pollution management programs as well as enhancing the implementation of marine pollution-related international conventions in the East Asian Seas region and beyond.

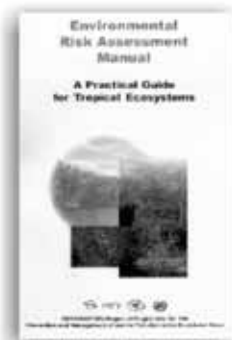


## Environmental Risk Assessment Manual: A Practical Guide for Tropical Ecosystems

(MPP-EAS Technical Report No. 21, 1999, 88 p.) **US\$ 18.00**

Postage : **Asia: +US\$ 1.50 Outside Asia: +US\$ 2.50**

Environmental risk assessment provides the basis for identifying and prioritizing risk as a result of human activity and their effect on ecosystems and human health. This manual provides policy makers, regulators and technical personnel with an understanding of the key principles and practices of environmental risk assessment. The methodology is illustrated by examples and exercises.



## Challenges and Opportunities in Managing Pollution in the East Asian Seas

(MPP-EAS Conference Proceedings 12/PEMSEA Conference Proceedings 1, 1999, 567 p.) **US\$30.00**

Postage : **Asia: +US\$ 7.75 Outside Asia: +US\$ 12.00**

Proceedings and key papers from the "Conference on the Challenges and Opportunities in Managing Pollution in the East Asian Seas," held in Manila, Philippines on March 22-24, 1999. This multisectoral-participated conference was convened as part of an effort to consolidate and accelerate innovative approaches in marine pollution prevention and management. The five themes of the meeting, as summarized in the book, include: integrated management of marine pollution; opportunities and developments in environmental investments; ratification and implementation of marine pollution-related international conventions; techniques and technologies in environmental and resources assessment, GIS, remote sensing, and modeling among others; participation of active stakeholders in integrated management of marine pollution.



## Manual on Strategies, Tools and Techniques for Implementing International Conventions on Marine Pollution in the East Asian Seas

(MPP-EAS Technical Report No. 26, 1999, 184 p.) **US\$ 18.00**

Postage : **Asia: +US\$ 2.75 Outside Asia: +US\$ 4.25**

This manual is a compendium of lessons learned regarding implementation of international conventions on marine pollution at the local, national and regional level in the East Asian Seas region. It is designed to be an easy reference for legal and other relevant practitioners and for developing and conducting other regional, national and local training exercises.



*More publications are listed in [www.pemsea.org](http://www.pemsea.org).  
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## NEWS

## Farewell to Dr. Huming Yu

PEMSEA recently held a going-away party for Dr. Huming Yu, PEMSEA Senior Programme Officer. A specialist in marine policy and resource economics, Dr. Yu earned his doctoral degree in marine policy from the University of Delaware, USA. He joined the Regional Programme on March 1, 1995 and throughout his five year stint with the programme, he developed and managed the programme's Integrated Coastal Management Demonstration Sites throughout the region as well as implementing numerous training activities. He is returning to the People's Republic of China to work for the State Oceanic Administration.



Photo by Manny Isla

**Dr. Yu (far right) delivers a farewell speech during a send-off party with PEMSEA Staff last May 23, 2000.**

## PEMSEA Develops New Website and E-mail



PEMSEA has secured its own Internet domain name: **www.pemsea.org** as a part of its ongoing efforts in creating a regional identity. The e-mail addresses of its programme office staff have likewise been changed. The new domain replaces the old imo.org.ph address.

For information about PEMSEA, visit the website at **www.pemsea.org** or e-mail **info@pemsea.org**.

### REQUEST FOR SUBMISSION

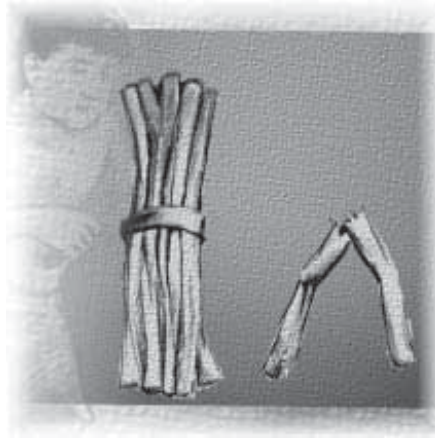
We highly encourage our readers to contribute articles for publication in *Tropical Coasts*. Topics should cover coastal and marine resource issues.

For enquiries please contact **info@pemsea.org**

# P a r t n e r s h i p s .

## C a n Y o u J o i n U s ?

**Have you ever heard of the boy who proudly can break each single wooden stick but crestfallen when unable to do so with a tied bundle of sticks? Being together gives the bundle its strength.**



**Likewise in our seas, there are existing projects, hundreds of strategies and approaches, and numerous stakeholders, mostly on their own but really with one urgent commonality - ensuring the sustainable use and management of our coastal and marine resources.**

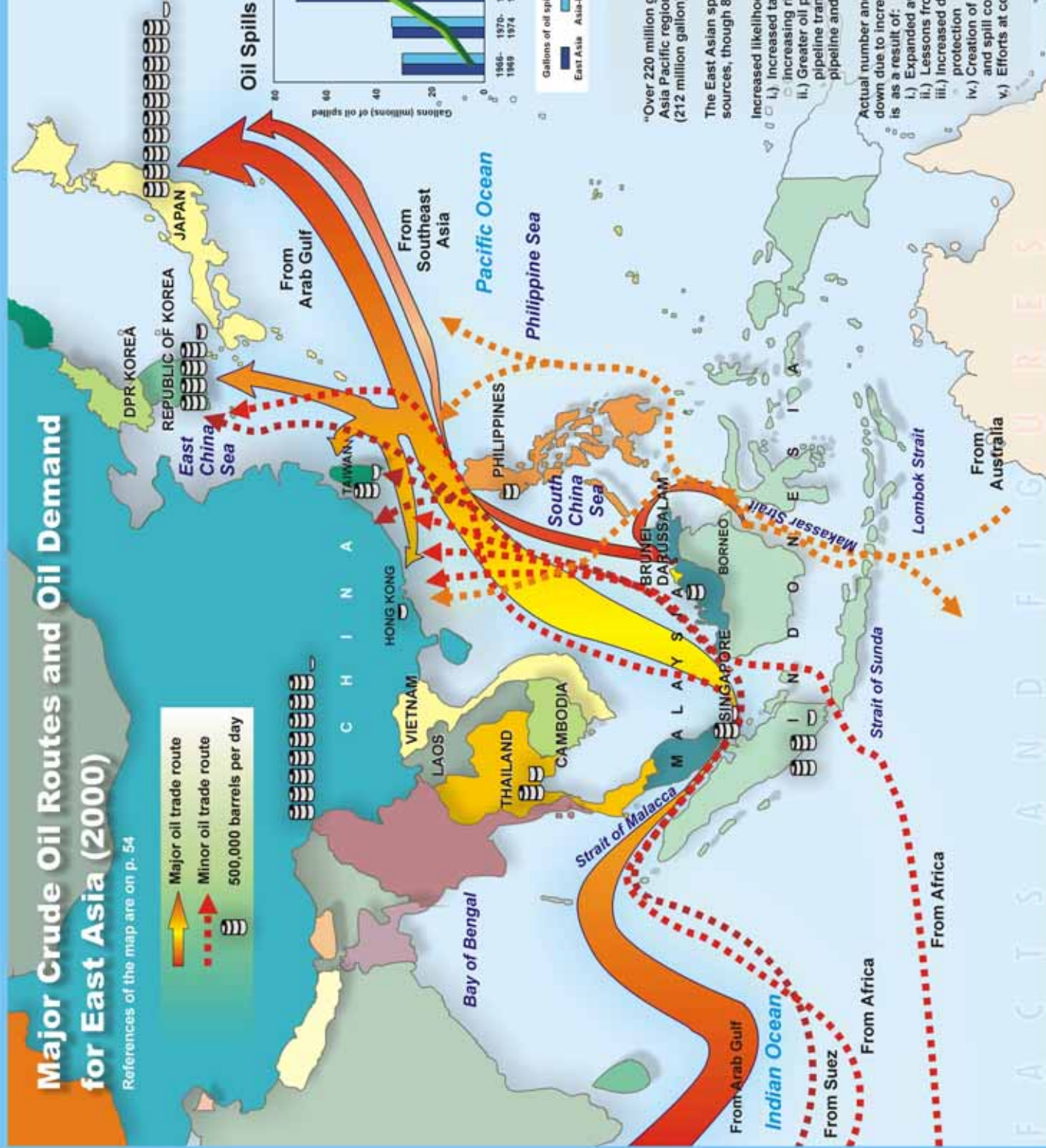
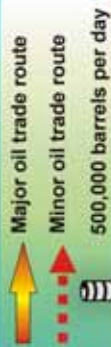
**The seas and issues are too big for anyone and everyone. But not for a bundle. Whether you are an individual, a group, or an organization - joining forces, pooling energies, and sharing resources will give us the capacity to achieve a shared vision - a safe and healthy sea.**

**Be A Partner**

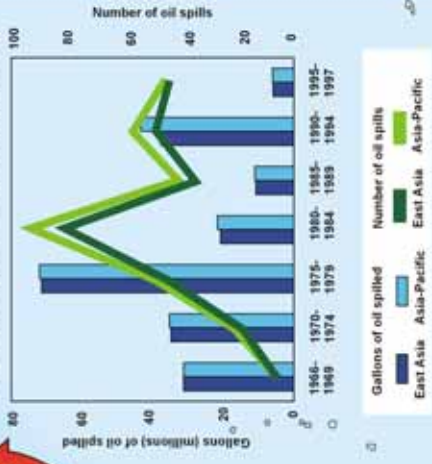
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# Major Crude Oil Routes and Oil Demand for East Asia (2000)

References of the map are on p. 54



## Oil Spills in East Asia (1997)



Over 220 million gallons of oil were spilled in the Asia Pacific region since 1965; about 96% of this (212 million gallons) occurred in East Asia.

The East Asian spills came from a number of sources, though 80% involve vessels.

Increased likelihood of oil spill may result from:

- i.) Increased tanker traffic and trade routes thus increasing risk of vessel spill
- ii.) Greater oil production and storage and pipeline transport thus increasing risk of pipeline and facility spills

Actual number and amount of oil spill have gone down due to increased oil spill preparedness. This is as a result of:

- i.) Expanded awareness of the oil spill threat
- ii.) Lessons from oil spill incidents in the past
- iii.) Increased dedication to environmental protection
- iv.) Creation of oil spill cooperatives and spill control agencies
- v.) Efforts at contingency planning