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**Oil Pollution Compensation Regimes & China:
Towards a Universal Solution**

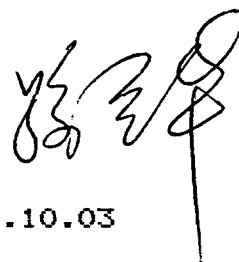
BY
SUN Lihua
P. R. China

A paper submitted to the Faculty of WMU in partial
satisfaction of the requirements for the award of a

MASTER OF SCIENCE DEGREE
in
General Maritime Administration

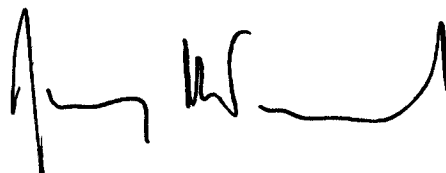
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**Oil Pollution Compensation Regimes & China:
Towards a Universal Solution**

Sun Lihua

**Malmö, Sweden
1998.10.03**

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Abbreviations

- CLC International Convention on Civil Liability for Oil
Pollution Damage, 1969
- CLC PROT 84 the 1984 Protocol to Amend the International
Convention on Civil Liability for Oil Pollution Damage,
1969
- CMAC China Maritime Arbitration Commission
- COSCO China Ocean Shipping Company
- COW Crude-Oil-Washing
- CRISTAL Contract Regarding an Interim Supplement to Tanker
Liability for Oil Pollution
Contract Regarding a Supplement to Tanker
Liability for Oil Pollution
- DCBT Dedicated Clean Ballast
- DOFA Dept. of Foreign Affairs of MOC
- FAO Food and Agricultural Organization
- FUND International Convention on the Establishment of an
International Fund for Compensation for Oil Pollution
Damage, 1971
- FUND PROT 1984 Protocol of 1984 to Amend the International
Convention on the Establishment of an International Fund
for Compensation for Oil Pollution Damage, 1971
- GRT Gross Registered Tonnage
- HSA Harbor Superintendency Administration
- IGS Inert Gas System
- IMF International Monetary Fund
- IMO International Maritime Organization
- INTERTANKO International Association of Independent Tanker
Owners
- IOPCF International Oil Pollution Compensation Fund
- IOPP International Oil Pollution Prevention
- ISL Institute of Shipping Economics and Logistics
- ITOPF International Tanker Owners Pollution Federation

Limited

LLMC Convention of Limitation of Liability for Maritime Claims, 1976

LOT Load-On-Top

M Million

MARPOL 73/78 the 1973 International Convention for Prevention of Pollution from Ships, as modified by the Protocol of 1978 relating thereto

MEPL Marine Environmental Protection Law

MOC Ministry of Communications

NPC National People's Congress

F & I Protection & Indemnity

PL Protective Location of SBT

PLATO Pollution Liability Agreement among Tanker Owners

RIWT Research Institute of Water Transport

RMB Renminbi Chinese Yuan

SDR Special Drawing Rights

SOA State Oceanic Administration

SOLAS International Convention for the Safety of Life at Sea, 1974/78

T Ton

TOVALOP Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution

SBT Segregated Ballast Tank

UN United Nations

VLCC Very Large Crude Carrier

ZC China Classification Society

INTRODUCTION

Pollution is a heated topic nowadays. With the fast development of industry and the increasing demand for a better environment, pollution has been realized over past 30 years as an imminent problem for human beings. With one ocean shared by all, particular attention is focused on marine pollution in order to keep the ocean clear. Marine pollution mainly come from the following areas:

1. Land-based sources
2. Atmosphere
3. Shipping activities
4. Offshore oil industry
5. Radioactivity
6. Military dumping etc.

Shipborne pollution can be further classified into operational and accidental pollution. It is mainly the latter one that this project aims at. However, this does not mean that shipping generates the most pollutants at sea, nor does accidental pollution constitute the largest part of pollution from ships. In fact, shipborne pollution represents only 12%¹ of the manmade pollution and accidental spills are only one fourth of that².

Yet the sudden breakout of the accidental spill is normally immediately disastrous upon the coastal states. The Torrey Canyon incident in 1968 made people almost totally unprepared

1. A UN report revealed that chief source of manmade ocean pollution from landbased discharge and runoff (44%); the atmosphere (33%); maritime transport (12%); dumping (10%) and offshore production (1%). Lloyd's List, March 20, 1990. See also Figure 1.

2 Intertanko Annual Report, 1989. p 12.

and the Amoco Cadiz in 1978 hit modern society another stroke. Even last year, the Exxon Valdez spilled 257,000 barrels of crude oil in Alaska and caused great disturbance so that it is still talked about nowadays. The impact of oil spills is catastrophic to the world. How to tackle the complicated issue of liability and how to get compensation at an international level remains the theme of this work.

Hydrocarbon Introduced into Sea

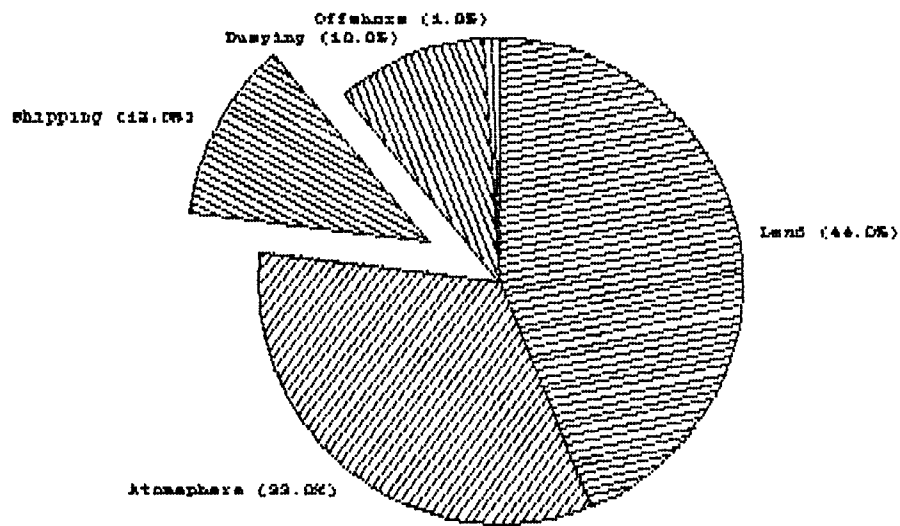


Figure 1 Sources of Manmade Ocean Pollution

Source: Drafted from Lloyd's List, March 20, 1989.

1 CHAPTER ONE IMPACT OF OIL POLLUTION DISASTER

1.1 DISASTERS & DAMAGES

1.1.1 DISASTERS

Over the last 30 years there was a great increasing demand for oil. Due to the importance of the oil producing locations and oil consuming locations, 60%¹ of the oil production has to be transported by sea. Not only crude oil is carried but because the refining of oil is at the destination, so the refined oil also has to be carried again to its customer.

This greatly provided cargoes for tanker business, from 299 million tons in 1950 to 1,440 million tons in 1970². Due to the scale of economics, tankers tended to be larger and larger, from VLCC 200,000DWT in 1967, ULCC 300,000DWT in 1972 to 500,000DWT in the late 70s until the tanker disasters such as the "Torrey Canyon" and the "Amoco Cadiz" etc.

As a consequence, tanker accidents rose. The first major one being the Torrey Canyon which grounded on Seven stones off the coast of England, and spilled 100,000 tons of crude oil. Some of the largest tanker spills since 1974 can be seen from Tab. 1. The latest one causing world attention is the tanker "Exxon Valdez" On 24, March 1989, It grounded in Prince Williams Sound, Alaska, and spilled 11 million gallons.

¹ Soni, Ramanlal, "Control of Maritime Pollution in International Law" . Cape Town: Juta & Co. Ltd., 1985. P5.

² See Section 5, Lecture given by Professor P. Alderton at WMU.

Figures 2 and 3 show the number of significant spills (those spilled more than 100 tons) was high, averaged 29 each year.

Table 1 The Largest Tanker Oil Spills
1974.01 - 1989.03

Date	Ship	Spill (bl)	Location
Jul 79	Atlantic Empress	2,044,000	off Trinidad
Mar 78	Amoco Cadiz	1,628,000	Brittany, France
Nov 88	Odyssey	1,000,000	Newfoundland
Feb 77	Hawaiian Patriot	742,500	Hawaiian Islands
Nov 79	Independenta	696,350	Bosporus, Turkey
May 76	Urquiola	670,000	Corunna, Spain
Feb 80	Irenes Serenade	600,000	Navarino Bay, Greece
Dec 89	Khark V	560,000	120m NW of Casablanca
Dec 85	Nova	500,000	off Kharg Islands
May 75	Epic Colocotronis	427,500	60m NW of Puerto Rico
Nov 74	Yuyo Maru No 10	375,000	Tokyo Bay
Jan 83	Assimi	370,000	58m off Muscat, Oman
Jan 75	British Ambassador	337,500	180m W of Iwojima
Aug 74	Metula	330,000	S Chile
Nov 79	Burmah Agate	300,000	off Galveston, US
Dec 78	Tadotsu	300,000	
Jan 75	Jakob Maersk	300,000	Leixoes, Portugal
Dec 80	Juan Antonio		
	Lavalleja	280,000	Algeria
Mar 89	Exxon Valdez	257,000	Alaska
Jan 75	Corinthos	266,000	Delaware River, US

Source: Lloyd's List, 1990.03.24.

Figure 2 Number of Significant Spills

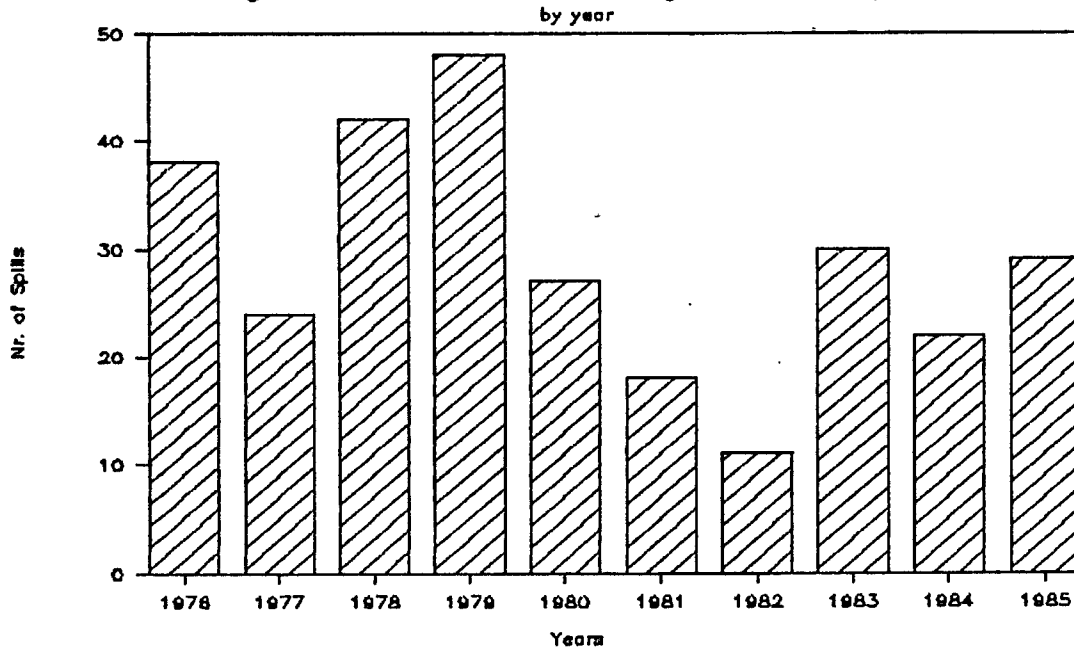
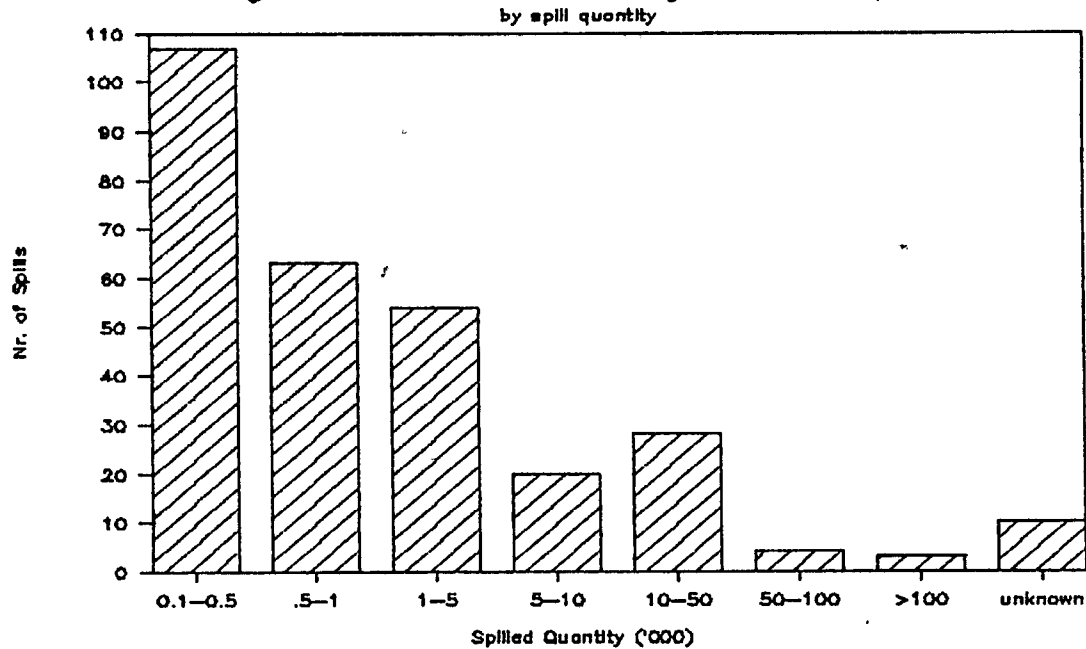


Figure 3 Number of Significant Spills



Source: Prof. B. K. Pu, Analysis of Significant oil spills Incidents from Ships, 1976-1985. Oil Spill Conference 1987, USA. pp 43 - 45.

1.1.2 Damage

Damage caused by these spills is enormous. These spills may cause death to the marine organisms, sea birds, and fishes. They spoil the beaches, cause fires, indirectly decrease the income of fishermen, hoteliers, restaurants...

Amounts for claims are huge. Let's look at some of the major disasters:

--- The Atlantic Empress spilled 2 million barrels of crude oil in July 1979 off Trinidad and the payout for this case reached US\$54 million.

--- The VLCC Amoco Cadiz in 1978 destroyed the Brittany coast of France. The French government mobilized lots of manpower as well as equipment. Booms, skimmers, absorbants and dispersants were deployed. The cleanup costs amounted to US\$100-110 millions, 85% for sea cleaning and 15% for shore cleaning. And aquaculture suffered US\$3 millions. Tourism lost US\$28M.¹ In 1988, Amoco was ordered to pay the French Claimants US\$85.2M.²

--- The latest major accident is the Amoco Cadiz. This one year old disaster brought the possible claims to a climax. It is reported that Exxon has paid out 2 billion US dollars purely for the cleanup cost³. Yet this is not the end.

¹ A Study on the Establishment of Marine Oil Pollution Compensation Fund in China. Beijing: Institute of Water Transportation Research, 1988. p4.

² "Major Oil Spills that would fill 11 VLCC", Lloyd's List 24-3-90.

³ *ibid.*

According to Jim Mulrenam¹, more than 170 civil actions has been brought against Exxon up to March 1990. Exxon has paid out US\$188M to the damaged claimants. Although the final decision is not expected for 10 years time, this accident can be envisaged to be the most expensive one.

The above-mentioned cases are all involved with very large amounts of spilled oil. Yet even the smaller scale could also lead to a rather high figure for claims. The 18,048 grt tanker Tanio on March 1980 spilled 13,500 tons (82,000) off Brittany, France, only 6% of the 240,000 ton Amoco Cadiz. Its accepted claim reached US\$48M, not much significance compared with the US\$85.2M Amoco Cadiz case.²

The American Trader is another example to show the sometimes irrelevance between spill quantity and claims. This 80,735 tones dwt tanker gave rise to 9,400 barrels of oil, a relative small amount, being spilled on Feb. 7, 1990 at Huntington Beach in Alaska. A US\$1 billion damage suit has already been instituted.³ Though this amount is slightly possible to be achieved, final claims may well exceed US\$ 100 M.

Shipping is of an international nature. When an oil spill occurs, people from many different countries might be concerned. This makes the pollution problem extremely complicated. Like the Amoco Cadiz case, the ship was flying a Liberian flag; its Amoco Transport Company was registered in Liberia. The ship was built by Astilleros Espanoles, S.A., a Spanish builder and classed with the American Bureau of

¹ *ibid.*

² See Annual Report 1988 of IOPC Fund, p26.

³ "Tanker Spill Clean-up Continues", Lloyd's List, Feb. 13, 1990.

Shipping. On the day it went aaround, it was operated by the Standard Oil Company (Indiana), an American company, while the plaintiffs came from France and the actions were instituted in the US.

In present day shipping, it is not difficult to find that the tanker is owned by one Co. in state A, then bareboat chartered to state B Co., and again sub-chartered to state C Co. or voyage chartered to state D Co. etc. The Tanio incident in March 1980 rightly fitted into this pattern. The ship was owned by a Swiss Co., bareboat chartered to a Panamanian company. She was later sub-bareboat chartered to a Madagascar company, and sub-chartered again to another Panamanian Co. and voyage chartered to a UK company. If this is not complicated enough, you may find out that the officers on board Tanio were French, but the rest were Madagascan.¹

An even worse case is when two tankers collide into each other and the oil from both ships affects several coastal states.

Therefore, numerous parties will be involved in a single pollution incident²:

- the Registered Owner;
- the Actual Owner in the absence of registered owner;
- the Parent Company of the owner;
- the Operator;
- the Manager;
- All kinds of Charterers and sub-charterers
- the P & I Club;

¹ Abecassis, David W. et al., Oil Pollution from Ships. London: Stevens & Sons, 1985. pp 4-5.

² Based on lecture note on Shipowner's Liability, given by Prof. J. Mlynarczyk, March 1990, WMU.

the Cargo Owner(s);
the Cargo Consignee(s);
The Officers & Crew of the ship;
the Shipbuilder & Designer;
the Ship Repairer;
the Classification Society;
the Governments of coastal states being affected;
the Companies and Individuals being affected;
the Flag State Authorities;
the Salvor(s);
Hundreds of Hull & Machinery and cargo underwriters etc.

1.2 INTERNATIONAL RESPONSES

In the wake of a series of oil pollution disasters, states began to study the cause of incidents and tried hard to prevent and combat oil spills. In so doing, various regulations were established and applied to the shipping industry.

However, due to the complex nature of oil trading and transportation, the parties involved being so internationally mixed, and the fact that there is only one ocean which is shared by all, regulations at an international level are much more important, as far as it seems to me. This is the only way to unify the different practices existing to make the problem less complicated. Since 50s and especially from the Torrey Canyon in 1967, action has been taken by the international community to combat oil pollution. Constructive conventions and agreements with detailed guidelines and recommendations have come out. For the purpose of this project, they are classified as conventions of preventive measures and conventions regarding civil liability and compensation.

1.2.1 Conventions of Preventive nature

Although it could be dated back to June 8-16, 1926, when the first international conference on marine oil pollution was held in Washington and there was another international conference of the same kind in Geneva, 1935, convened by the League of Nations, it was not until 1954 that the world's first international treaty on oil pollution - the 1954 International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL 54) - was adopted at an international conference in London. Since then, and particularly after the Torrey Canyon and Amoco Cadiz etc, new and more stringent rules were established to supersede the 1954 OILPOL. The most important one being the 1973 International Convention for Prevention of Pollution from ships, as modified by the Protocol of 1978 relating thereto (commonly known as Marpol 73/78). This convention came into force on October 2, 1986. It now has 57 contracting parties, covering 85.25% of world tonnage.¹

Marpol 73/78 Annex I is the core of this convention. It provides the detailed regulations for the prevention of Pollution by oil. Some of the important requirements for operational procedures are briefed hereunder.

1.2.1.1 Load-On-Top (LOT) System

This is a tank cleaning procedure. Before the LOT was introduced, tank cleaning water and dirty ballast water was conventionally discharged directly into the sea. This constituted a major source of ship-generated oil pollution. LOT first appeared in the 1969 Amendments to OILPOL 54 and was

¹ MEPC 29/2, IMO. 1990-02-08.

used by 85% of the tanker fleet for existing tankers on long haul voyages in the 70s.¹

With the LOT method, tank cleaning water and dirty ballast water are separated into clean water and oil residues (oil-water mixture). The clean water is pumped overboard on top of the oil residue. This greatly reduced the oil being discharged directly from tanker operations.

1.2.1.2 Crude-Oil-Washing (COW) System

Required by Reg. 13(6) of Annex I, Marpol 73/78, COW is a more advanced system than LOT in dealing with ballasting and tank washing. Crude oil washing uses crude oil itself to wash off oil clinge and is much more effective than water washing. More than 90% of the oil clinge could be wiped out.²

There is a safety requirement for the use of COW. That is the Inert Gas System (IGS), and it must be in accordance with ChII-2 regulations of SOLAS.

1.2.1.3 Other Systems

Marpol lays down further requirements for new and some existing tankers on equipment and construction features. These are :

- Segregated Ballast Tank (SBT);
- Protective Location of SBT (PL);

¹ Parker, H.D. & Pitt, G.D., Pollution Control Instrumentation for Oil and Effluents. London: Graham & Trotman Ltd., 1987. p27.

² *ibid.* p 34.

Dedicated Clean Ballast Tank (DCBT); and
Oil Record Book and IOPP (International Oil Pollution
Prevention) certificate.

There is also a requirement for shore reception facilities.

Although new regulations and technology have been steadily introduced to the international shipping community and reduced certain pollution incidents, it is realized that accidental and operational spill can not be eliminated. Since machines have to be operated by men, thus manmade errors or negligence can not be eliminated. In fact, it is found out that 90%¹ of the accidents were due to human factors through the process of ship designing, shipbuilding, operating, manning and operating , like the faulty designing of the Amoco Cadiz or the overdrinking of Captain Hazelwood of Exxon Valdez. Language barriers may be another contributing factor, especially on those ships manned by different nationalities. This shows how vulnerable human beings are, and this important human fatigue factor has been under discussion at IMO's STCW subcommittee for several years.

Oil pollution, so long as oil remains the major energy and has to be shipped by sea, will inevitably occur (just as I was writing this in June, 3 tankers spilled oil in US and Swedish waters), and one of the after spill problems - liability and compensation - has to be addressed.

1.2.2 Conventions regarding Liability and Compensation

¹ Gold, Edgar, Handbook on Marine Pollution, Arendal: Gard, 1985. p. 132.

After a spill, one important thing is clean-up, aiming at restoring the marine environment to its prespill condition. This is undoubtedly of crucial importance and very effective to reduce the extent of damage. In the clean-up process, tremendous financial and labor resources are mobilized to combat the spill. As a consequence, questions like "who is liable for the spill", "who should and how to pay for the damage and costs" will always occur. This gives rise to the liability and compensation issue, which is of equal importance to the technical clean-up.

This is a thorny and extremely complex problem, which has to be regulated at international level:

- 1). too many parties involved: shipowner, charterer(s), manager, P & I club(s), coastal state, claimants.....;
- 2). too many states involved, like in the Tanio case, more than 5;
- 3). too expensive; Exxon has spent more than \$2 billion by March 1990. This sum of money is a heavy burden upon the spiller. For a shipping line whose parent company is a big consortium, like the Exxon Co., it may take active part in combating the spill and spend tremendous money and energy on it. But what if the spill is caused by a one-tanker company? The shipowner will simply not be financially able to provide great resources. Thus it will be of disadvantage to the whole clean-up process and more damage might be caused by delay;
- 4). Too long litigations; Long legal proceedings will always come in the wake of a disaster. It takes years for the court to make a final decision. The Amoco Cadiz

spilled oil some 12 years ago, yet the case is still hanging in the States. For the Exxon Valdez, it is without difficulty to expect that it will go well into the next century. At the same time, legal expenses will amount to a significant sum; and

5). Numerous claimants. Even a small scale spill will have lots of claimants. Coastal authorities, governmental departments, fisheries, hoteliers, restaurants, by individual or corporate body. Large spills like the Exxon Valdez has made Exxon facing "170 individual civil actions from a range of other companies, groups and individuals" until March 1990, and more than "7,000 individual plaintiffs are preparing" to take action against it, despite it has paid out \$188 million to 11,000 individuals and groups.¹

There are still more problems, but even with the above listed, one can imagine the complexity. National law has long dominated and regulated the liability issue, but it has been found unsatisfactory by both the suffering parties and the spillers. Such an international issue has to be done by the international community. Chapter two deals exclusively with such international regimes.

¹ "Mass of Litigation that Faces Exxon for Years to Come", Mulrenan, Jim, Lloyd's List March 24, 1990.

2 CHAPTER TWO GLOBAL REGIMES

2.1 THE ENTIRE REGIME

Civil liability of oil pollution has long been subject to municipal legislation until the late 60s when the Torrey Canyon brought disastrous and enormous problems to the modern society and gave rise to the first exclusive international convention regime of CLC. In the following years, a series of pollution disasters accelerated the process. The present integrated regime is made up of the following:

STATUTORY CONVENTIONS

International Convention on Civil Liability for Oil Pollution Damages, 1969 (CLC) and its 1976 Protocol;

Protocol of 1984 to Amend the International Convention on Civil Liability for Oil Pollution Damages, 1969;

International¹ Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (FUND) and its 1976 Protocol;

Protocol of 1984 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (FUND) and its 1976 Protocol.

VOLUNTARY AGREEMENTS

Tanker Owners Voluntary Agreement Governing Liability for Oil Pollution, 1969 (TOVALOP) and its amendments;

the Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution, 1971 (CRISTAL) and its amendments.

The statutory conventions were adopted at diplomatic conferences convened by IMO. They are ratified by sovereign state and are binding in nature for state parties.

The agreements were drafted by industrial companies. Individual shipping and oil companies can join the agreements and become a member on a voluntary basis. Member have contractual obligation under these agreements.

Theoretically there also exist some conventions which deal with general civil liabilities including oil pollution civil liability still in force:

International Convention International Convention for the Unification of Certain Rules Relating to the Limitation of the Liability of Owners of Sea-going vessels 1924 (Liability 1924);

International Convention Relating to the Limitation of the Liability of Owners of Sea-going ships 1957 (Liability 1957);

The Convention of Limitation of Liability for Maritime Claims, 1976 (LLMC).

These instruments form an integral part of the global regime of Liability for oil pollution. They provide the basis for Limitation of Civil Liability for general Maritime Claims, therefor there are restrictions for specific oil pollution claims.

As it provided in Article 3 paragraph(b) of LLMC 76:

" The rules of this convention shall not apply to:

(a)

(b) Claims for oil pollution damage within the meaning of the CLC, dated Nov.29,1969 or of any amendment or protocol thereto which is in force;"

Wherever the exclusive CLC is the governing law in a case, the general LLMC will no longer be applicable, or to construe it another way, these general liability conventions apply to member states of those conventions which are not parties to CLC or apply to member states of both CLC and these conventions, but liability for oil pollution damage is not covered by CLC 69 and Fund 71.

However, these conventions merely impose limitation on state parties. They do not create the basis for liability, whether a party is liable or not and to what degree oil pollution damage is left to national law. They are inadequate and because of the low limitation under these conventions they are most unpopular in the present oil pollution liability regime. CLC and Fund, providing the basis for strict liability and compensation for damage, and relatively higher limitation amounts are much more widely applied.

Annex II shows 66 countries representing 82% of world tonnage have ratified CLC 69, and 43 ratified Fund 71, a 57.9% of total tonnage. Liability 1924 and 1957 Brussel conventions are not universally accepted and no more new countries are likely to ratify these 2 with the entry into force of LLMC 1976, which was designed to replace the previous conventions. In fact, as per February 1990, (?) 43% of world tonnage has been

subject to this new convention.¹

CLC and FUND are more universally accepted so far as oil pollution liability concerns. It is also important to notice that all the 15 member states to LLMC 76 are at the same time contracting parties to CLC 69. Accordingly the principle that LLMC will be applicable for those LLMC but not CLC parties remains only theoretically correct. What is left for LLMC and other general limitation conventions are those cases not covered by CLC but by these conventions. It is noted that this includes the cases when CLC doesn't apply even for a contracting party. For a example, where cleanup expenses have been incurred when a cargo vessel spilled bunker oil through negligence. CLC is not applicable for a cargo vessel. Such a shipowner, however, may be found liable under national law, then he may be able to limit his liability by invoking the general liability rules if the flag state is a contracting party to it. However, such cases are rare, so far as oil pollution liability concerns. Therefore, this project is confined to the specific pollution liability conventions.

2.2 CLC 69

This convention is a fallout of Torrey Canyon disaster . It was adopted at the International Legal Conference on Marine Pollution damage in Brussels on 29 Nov. 1969. Its main objective is to establish uniform intentional rules for oil pollution liability and to provide adequate compensation for damage.

¹ Liability Conventions 1924 and 1957 covers only 5-6% and 13% respectively of world tonnage. Based on lecture on Shipowner's Liability by Prof. J. Mlynarczyk, March 1990, WMU.

EVOLUTION

Liability of shipowner has long been based on fault. The claimant will have to prove that the shipowner is negligent in order to hold him liable. This is quite fair for general maritime claims, taking account of the maritime risks in sea transportation, but this notion is far from satisfactory for oil pollution liability. CLC, coming in timely fashion in 1969 and entering into force in 1975, created the principle of strict liability and compulsory insurance, a revolutionary approach in the oil pollution field.

2.2.1 Liability under CLC

2.2.1.1 Strict Liability

Art III (1) provides that:

"... the owner of a ship at the time of an incident, or where the incident consists of a series of occurrences at the time of the first such occurrence, shall be liable for any pollution damage caused by oil which has escaped or been discharged from the ship as a result of the incident."

This principle is illustrated in the case of *Esso Petroleum Co. Ltd. v. Southport Corporation*¹, where an oil tanker was stranded in a river estuary and, to prevent further damage, discharged a quantity of oil which polluted the foreshore belonging to Southport Corporation. As the oil pollution damage then was based on fault in the UK, it was decided by the Appeal Court in 1956 that since the claimant had not been able to prove the negligence of the shipowner, the shipowner was not liable for the damage.

¹ (1956) A.C. 218.

It would be held differently today under CLC 69. The shipowner is strictly liable without proof of fault. This is a big advantage for claimants. Benefits are summarized as follows:¹

1. This rightly embodies the "principle of polluter pays", because the polluter benefits from the shipping activity and it is reasonable for him to bear the pollution risk through compulsory insurance. As to the financial burden on polluter, Prof. Wetterstein was of the opinion that the insurance cost should be, and in fact is, added into the operating cost and this will be passed on to consumers;
2. In so doing the polluting parties are pressed to exercise due diligence;
3. This system "encompasses a broader range" of compensatable damage;
4. The damaged parties are released of "the burden of proof";
5. This system ensures "expeditious compensation" and saves lots of extremely high legal expenses;
6. A unified system based on strict liability simplifies the problem and is effective in international disasters.

Prof. Wetterstein also cited a most comprehensive system of strict liability as "a modern, practicable and functional system of compensation".

2.2.1.2 Scope of Application

The coverage of the convention is narrowed by the definitions

¹ Wetterstein, P, Damage from International Disasters in the Light of Tort and Insurance Law. Turku: Abo Akademi University, Finland, 1989. pp 54-56.

and wording in the convention as a compromise in the 69 Conference.

"Ship" is defined in Art. I (1) as " any-seagoing vessel and any seaborne craft of any type whatsoever, actually carrying oil in bulk as cargo". This covers only laden tankers or combination vessels. Lake, river and other cargo vessels are not included, even for tankers carrying no oil cargo on board. So, the damage caused by bunker oil from Olympia Bravery, off the French coast in 1976 was not covered by CLC as she was on a ballast voyage.¹

"Oil" is defined as "persistent oil".² This consists of crude oil, fuel oil, heavy diesel oil, lubricating oil and whale oil but excludes a large quantity of refined oil and vegetable oil. Dirty ballast and oil residues are also excepted. This inclusion of whale oil is peculiar and therefore it is removed by the 1984 Protocol.³

Oil must have "escaped or been discharged from the ship". This includes both accidental spills and operational discharge, but the coming out of oil must be real and it does not cover "pure threat" situations. This was tested by the Tarpenbeck case.

The scope of the convention is further restricted only to such "damage caused on the territory including the territorial sea of a contracting state", irrespective of whether the registered state is a contracting party or not. This clause

¹ Abecassis, David, W., et al. Oil Pollution from Ships. London: Stevens and Sons, 1985. p 195.

² Art I (5), CLC 1969.

³ According to Abecassis, p197, it was included at the request of Japanese because it had the same viscosity and persistence as heavy oil and was carried in bulk.

benefits the suffering country which has joined the CLC convention, so, in order to avail itself of the advantage, a state has to participate in the convention.

2.2.1.3 Channelling of Liability

All liability is channelled to the owner. His servants and agents are protected from claims and in the 1984 Protocol even the salvors and bareboat charterers are protected. Once the owner is sued under this convention, he shall not be claimed against under another legal basis, say common law. This is reasonable and beneficial for the claimants since in the modern shipping world, ships may be chartered several times thus the claimants have great difficulty in choosing the wrongdoer, and what is more annoying is that the one being claimed against might be one ship or no ship company and has gone bankrupt.

The owner of the ship on the other hand, knows clearly his ship's movements and conditions and is backed by P & I insurance against third party liability thus financially capable. There might also be pressure on the shipowner to exercise his due diligence to prevent from pollution.

2.2.2 Right to Limit and Conduct Barring the Limit

2.2.2.1 Right to Limit

This convention imposes strict liability on shipowners, but it is not absolute liability. They are entitled to limit to 2,000 francs each ton and not exceed 210 million francs in any case. This could be regarded as the result of compromise between claimants and shipping industry, but the fact that the

pollution insurance cover is limited¹ also led to such coming out. It would be pointless to hold a financially incapable person unlimitedly liable.

Furthermore, "the society should be prepared to bear a certain degree of damage and discomfort" and this is the price we have to pay for our "high standard of living and technical progress".² The limit of tolerance principle is used here for shipping industry which is nowadays very vulnerable. Without the sharing of the burden by society, the oil transport industry would collapse and this will do more harm than good for the society.

EXEMPTION

There are four cases where the shipowner is fully or partially exempted from liability if he proves that the damage results from:

1. an act of war or a natural phenomenon of an exceptional, inevitable and irresistible character;
2. wholly by third party;
3. wholly by the negligence of government agencies; and
4. he may wholly or partially be released from liability if the claimant constitutes contributory negligence. In the Amoco Cadiz case,³ the shipowner counter claimed against the French government for their negligence in failing to "prevent or contain the spill". Although it was dismissed as an entire exemption, Judge McGarr ruled

¹ The maximum insurable liability was about US\$ 14M in 1969. See Abecassis, et al, op. cit. p215.

² Wetterstein, op. cit. p 54-55.

³ (1984)2 Lloyd's Law Report 339.

that "Amoco cannot be liable for damage resulting from any inept clean up efforts which in fact exacerbated the harm".

Exxon also counter claimed Alaskan authority for improper use of chemical dispersants.¹

A successful example using the provision is the Tsesis, a Russian ship, which went aground in Swedish water in 1977 and caused oil pollution. The shipowner claimed to be exonerated under Art IV (2) (c) and the supreme court of Swedish also held him exempted because the Swedish government had failed properly to maintain maritime charts which, after heavy debate, were "other navigational aids."²

2.2.3 Conduct Barring the Right to Limit

The shipowner shall not be entitled to limit his liability if the incident resulted from his actual fault or privity.

2.2.4 Units of Account

The shipowner is limited to 2,000 francs for each ton of the ship's tonnage (limitation ton as is often called) with a ceiling of 210 million francs maximum.

In order to avail himself of the limitation, the shipowner must constitute a fund, which is his limitation amount, with the court. Although this article creates no legal complexity, there might be difficulty in practice as to the conversion from francs to national currency. Therefore, aiming at uniformity and also using a relatively stable currency, the

¹ Lloyd's List, March 24, 1970.

² Abecassis, op. cit. p205.

1976 Protocol (so called SDR Protocol since it amended nothing but the unit of currency.) replaced the francs with 133 Special Drawing Rights per limitation ton and a ceiling of 14 million

SDR, from April 8, 1981. For parties only to CLC 69 or non-IMF members whose national law prohibits the use of SDR, francs shall apply.

2.2.5 Present Status of CLC 69

As per January 1, 1989, there are 66 contracting states (see Annex I), covering 82% of total world deadweight tonnage.

2.3 FUND 71

2.3.1 Introduction

This convention is supplementary to the CLC 69. CLC 69 places the burden on the shipowning industry, while FUND 71 was based on the burden-sharing principle for the mutual benefit of both shipping and oil industries and also due to public pressure. It created a compensation fund contributed by the oil cargo sector towards pollution damage.

FUND 71 was adopted on December 18, 1971 at a diplomatic conference in Brussels. It came into force on Oct. 16, 1978. Its two main purposes are: to fully and adequately compensate the victims of oil pollution damage; and to reduce the shipowner of the additional financial burden imposed by the CLC convention. The basic principle is that, where liability under the CLC ends, the FUND 71's liability begins. Both the victims of damage and the owner of the ship may be claimants against the IOPC Fund (International Oil Pollution Fund). IOPC Fund here functions as an insurance company. It receives

contributions from oil companies and compensate victims and shipowner out of this Fund.

FUND 71 contains the following 48 Articles:

- General Provisions (Art 1-3);
- Compensation and Indemnification (Art 4-9);
- Contributions (Art 10-15);
- Organization and Administration (Art 16);
- Assembly (Art 17-20);
- Executive Committee (Art 21-27);
- Secretariat (Art 28-30);
- Finances (Art 31);
- Voting (Art 32-34);
- Transitional Provisions (Art 35-36); and
- Final clauses (Art 37-48).

2.3.2 Scope of Application

"Ship", "person", "owner", "pollution damage" and "preventive measures" etc remains identical with the CLC 69 convention. The only difference is the exclusion of whale oil. Only crude oil and fuel oil is covered by FUND 71.

2.3.3 Compensation for Pollution Damage

2.3.3.1 Compensation

Under Art 4(1), the IOPC Fund shall pay compensation to the victims if:

- a. no liability is available under CLC 69;
- b. the shipowner is financially incapable; and
- c. the damage exceeds the CLC 69 limit or limit under

other international conventions.

Such compensation is available to claimants from contracting parties to FUND, irrespective of what flag the ship is flying.

Costs of preventive measures by the shipowner are also recoverable from Fund, as an incentive to the owner to take active action against pollution.

It worthwhile to note also that the Fund is still liable if the damage is resulted from exceptional natural phenomenon, or wholly caused by a third party act or negligence of any government.

2.3.3.2 Exemption

There are exceptions for the IOPC Fund:

- a. Damage resulting from war, hostilities, civil war or insurrection; or
- b. Damage resulting from a state-owned ship; or
- c. There is lack of evidence that the damage is caused by an incident involving a ship.

The Fund may also be exonerated wholly or partially if the damage is resulted wholly or partially from the negligence of the victim, but such exemption shall not extend to preventive measures.¹

2.3.3.3 Practices with Compensation Claims

In practice, almost all claims for pollution damage compensation come under Art 4(1)(C), that is when the damage is greater than the CLC limit.²

¹ This point is made clear in Art. 4(2).

² Claims Manual, London: IOPC Fund, 1990. p 2.

Out of the 34 incidents involving claims against IOPC Fund from October 1978 to Jan. 1989, with only one exception, 33 cases have been solved out of court.¹ This illustrates the importance of the IOPCF attitude towards compensation.

2.3.3.4 Principles of IOPC Fund Regarding the Admissibility of Claims

In connection with the settlement of claims, the IOPCF has developed certain principles as to the admissibility of claims. Although they are not binding, it is of practical use to know them.

Dr. M. Jacobsson, the Director of IOPCF and Mr. Norbert Trotz have elaborated these principles in the Journal of Maritime Law and Commerce.²

A. PERSONAL INJURY AND DEATH

Since "pollution damage" includes the costs of preventive measures and further loss or damage caused by preventive measures, the personal injury and death caused during preventive measure operations would be covered by the definition of "pollution damage".

B. COSTS FOR CLEANUP OPERATIONS

¹ Jacobsson, M. the International Oil Pollution Compensation Fund: Ten Years of Claims Settlement Experience. Proceedings of the 1987 Oil Spill Conference. American Petroleum Institute, Washington, D.C. 1989. pp 555-557.

² Jacobsson, M. and Trotz, N., The Definition of Pollution Damage in the 1984 Protocols to the 1969 Civil Liability Convention and the 1971 FUND Convention, Journal of Maritime Law & Commerce, Vol.17, No. 4, October, 1984.

The IOPCF compensates costs incurred for clean-up operations at sea and on the beach:

Sea clean-up costs may include: the deployment of vessels, crew salaries, booms and dispersants;

Shore clean-up costs may be: personnel, equipment, absorbants and other services and supplies.

C. PREVENTIVE MEASURES

It only covers costs of reasonable measures, which has to be considered from an objective point of view. This may include:

Sealing of fractures of the damaged ship;

Deployment of booms to prevent oil reaching the shore; &

Using of dispersants etc.

However, "pure threat removal measures " are not covered.

D. DAMAGE TO PROPERTY

IOPCF compensates the cost of:

Cleaning contaminated property such as boats, fishing gear, piers, embankments, beaches and roads etc;

repair of the damaged property in the cleaning process;

replacement of unrecoverable contaminated property.

E. SALVAGE OPERATIONS

"Salvage operations" can be considered as preventive measures only if their primary purpose is to prevent or minimize pollution damage. If operations have previously another purpose such as salvaging the hull or cargo, the operations would not be considered as preventive measures.

F. CONSEQUENTIAL LOSS

Loss of income of the owners or users of contaminated or damaged property such as a polluted fishing boat or gear are

accepted.

G. PURE ECONOMIC LOSS

CLC 69 is not clear on this respect. But there has been a trend to include such loss as the consequential losses to a certain extent and IOPCF has agreed to "compensate economic loss suffered by persons who depend directly on earnings from coastal or sea-related activities, eg, loss of earnings suffered by fishermen and by hoteliers and restaurants at seaside".¹

H. DAMAGE TO THE ENVIRONMENT

Non-economic damage to the environment is not accepted by IOPCF. Compensation for the restoration of the marine environment is restricted only to reasonable measures undertaken or to be undertaken.

2.3.4 Indemnification for Shipowners

To relieve the burden of the shipowner, certain indemnification is provided under Art 5, Fund 71 up to 210 million francs.

However, the IOPCF is exonerated wholly or partially if:

- a. the pollution damage is a result of the wilful misconduct of the owner, or
- b. if the owner, as the result of actual fault or privity, fails to comply with the convention

¹ Oil Spill Conference 1987, USA, p 556.

requirements under Art. 5 (3) (a) and such non-compliance is the whole or partial cause of the incident.

Up to December 31, 1984, 10 claims for indemnification had been settled by IOPCF, but no exoneration of IOPCF has been experienced.¹

2.3.5 Units of Account

Although there is a 76 SDR Protocol aiming at replacing the current unit of account to Special Drawing Rights, this Protocol has not come into force and most likely never will.² Therefore, the present unit of account is still francs.

2.3.5.1 Calculation for Compensation

The original ceiling in Art. 4 (4) (a) was 450 million francs. This was changed to 675 million francs (US\$ 18.5 M on 90.01.01), based on a French proposal soon after the Amoco Cadiz. It came into operation on April 20, 1979.

The amount payable under this Article is a subtraction from 675 million the amount of compensation actually paid to victims under CLC 69. A formula might be useful to describe it:

$$FCA = TCA - CCA, \quad \text{when } TCA < 675 \text{ M francs; or}$$

$$FCA = 675 - CCA, \quad \text{when } TCA \geq 675 \text{ M francs.}$$

where: FCA: FUND Compensation Amount

TCA: Total Compensation Amount

CCA: CLC Compensation Amount

¹ Abecassis, op. cit. p 262.

² As the largest IOPCF contributor, Japan, is unlikely to join in the Protocol, the oil requirement for entry into force is difficult to be met.

The formula also shows that FCA can not be determined without knowing the total compensation payable. It is therefore advisable for the claimants to negotiate with the polluter and IOPCF on the total amount in order to get expeditious IOPCF compensation.

2.3.5.2 Calculation for Indemnification

The IOPCF will indemnify part of the shipowner's CLC liability that exceeds the lesser one of either 1,500 francs (100 SDR) per ton or 125 million francs (8.3 M SDR) up to the CLC ceiling, which is the lesser one of either 2,000 francs (133 SDR) per ton or 210 million francs (14 M SDR).

Formula: $FIA = SLA - \{1,500 * T, 125 M\}_{min}$,
when $SLA \leq \{2,000 * T, 210 M\}_{min}$; or
 $FIA = \{2,000 * T, 210 M\}_{min} - \{1,500 * T, 125 M\}_{min}$,
when $SLA > \{2,000 * T, 210 M\}_{min}$.
where: FIA: FUND Indemnification Amount
SLA: Shipowner's CLC Liability Amount
T: Ship's Limitation Tonnage

The indemnification under FUND accounts for roughly one fourth of the shipowner's CLC liability.¹

2.3.6 Administration

Under the FUND organization rule, there is an Assembly, an Executive Committee and a Secretariat.

The daily operation of the IOPCF is administered by the secretariat. It is a small organization with one Director, who

¹ $2,000 - 1,500 = 500$, whilst $500 / 2,000 = 1/4$.

is the legal representative, one Legal Officer, one Finance / Personnel Officer, three Secretaries and one Messenger. The main function among the other things of the Secretariat is to handle the claims for compensation. Through its 12 years operation, it has gained considerable experience on claims and the Director's attitude towards claims settlement is crucial in determination of the compensation amount.

IOPCF, has been active and effective in dealing with pollution compensation and is now advocating broader participation in the FUND 71 as well as FUND 84 regimes.

2.3.7 How to Claim

Any person who has suffered pollution damage in a Fund contracting state may claim for compensation against the IOPCF. Such a person includes a state or other authorities. The claim should be submitted to the IOPCF as soon as possible. The address is: IOPC Fund

4 Albert Embankment

London SE1 7SR

UK

Tel: 071-5822606

There is a time bar provision of 3 years from the date on which the damage occurs. In no case may an action be brought after 6 years from the date of the incident.

A claim should be presented in writing (including telefax or telex) in English or French preferably. Each item of claim must be supported by explanatory notes or invoices or other materials.

It is also suggested that claimants should get in touch with

the IOPCF Director after the incident.

To facilitate people with claims, IOPCF has produced a Claims Manual¹ which listed all particulars a claim should contain and other practical information.

2.3.8 Status of Fund

As at January 31, 1990, there are 43 contracting parties for FUND 71, some 54% of world tonnage.

2.4 TOVALOP (Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution)

2.4.1 Introduction

The Torrey Canyon incident in 1967 has led to 2 international conventions on liability and compensation issues. Although CLC and FUND were produced in 1969 and 1971 respectively, they had to wait for 6 or 7 years before they came into force. Fearing there might be another disaster before they became effective and under public pressure, the oil and tanker industries took constructive action in producing 2 voluntary agreements - TOVALOP & CRISTAL.

TOVALOP was developed on January 7, 1969 and came into operation on October 6, 1969, covering 50% of the world tanker fleet. This figure soon reached 99% in 1972 and is still as high as 97% nowadays.² Since part of the remaining 3% is laid-up tonnage, it can be said that almost every tanker in sight is covered by this important regime.

¹ Claims Manual. London: IOPC Fund, 1970.

² TOVALOP. London: ITOFF Ltd. 1970. p 1.

There were several amendments since 1969: in 1972, 1975, 1978, 1982 and 1981. In 1986, it underwent a substantial change, resulting in the amended TOVALOP, or the Standing Agreement as it is called now, and a Supplement. Parties to TOVALOP are automatically subject to the Standing Agreement and the Supplement.

2.4.2 The Standing Agreement

2.4.2.1 Assumed Responsibility

Art. IV provides that the participating owner of a tanker voluntarily assumes responsibility in respect of pollution damage and the cost of threat removal measures taken as a result of the incident.

However, no responsibility shall be assumed if the incident resulted from a war act, an exceptional natural phenomenon, third party act or government negligence (the same exemption as CLC 69). the Standing Agreement will also cease to operate if the incident occurred in a place where the CLC is applicable.

2.4.2.2 Limits of Financial Responsibility

Clause VII limits a participating owner's financial responsibility for one incident to a maximum of US\$ 160 per limitation ton or US\$ 16.8 M, whichever is less. (see figure 7)

The right to limit is absolute and could not be broken, different from that in CLC 69. TOVALOP was originally intended to encourage tanker owners to take measures themselves voluntarily to clean up spills regardless of the need for establishing the liability.

The financial responsibility is further limited by a 2-year time bar, from the date of the incident.

2.4.2.3 Comparison with CLC

Some of the major differences:

1. TOVALOP is voluntary, covering only those tankers owned by the parties to TOVALOP;
CLC is a statutory convention. It is binding and applies to all vessels within the scope of its provisions;
2. TOVALOP applies to the pure threat situation;
3. TOVALOP applies to ballast tankers;
4. the right to limit under TOVALOP is absolute;
5. TOVALOP includes the bareboat charterer as the owner;
6. pure speculative and remote loss or damage is excluded specifically under TOVALOP; and
7. disputes under TOVALOP must be settled by arbitration.

2.4.3 TOVALOP Supplement

The Supplement is designed to raise the limit substantially in order to mirror the development of international conventions, i.e. the 1984 Protocols to the CLC and FUND. such an agreement was reached between tanker owners and oil companies in 1986. Whilst TOVALOP still remains a single agreement and all parties to it are at the same time automatically bound by both the Standing agreement and the Supplement, it is important to note that the terms of the supplement apply only to Applicable

Incidents.¹ In all other cases, only the Standing Agreement will function.

The Supplement differs from the SA in the following aspects:

2.4.3.1 Responsibility

As is described in 2.4.2.3, the SA will cease to be operative if an incident occurred in a CLC applicable state. This has been rectified by the Supplement, thus has made the Supplement applicable to an applicable incident in all countries, irrespective of whether the incident appears in a CLC or both CLC and FUND state. This Supplement led TOVALOP to a worldwide agreement.

2.4.3.2 Limit of Compensation

The participating owner is entitled to limit his responsibility in the case of a tanker:

0-5,000 grt, US\$ 3 M;

5,000-140,000 grt, US\$ 3 M plus US\$ 493 per ton for each ton in excess; and

over 140,000 grt, US \$70 M, which is a little bit lower than but comparable with CLC 84.

2.4.3.3 "Ton" Definition

"Ton" under the Supplement means a ton of a tanker's gross tonnage determined by the Tonnage Measurement Convention 1969,

¹ "Applicable Incident" means any occurrence which causes pollution damage by oil when the cargo in the tanker is "owned" by an Oil Company party to CRISTAL. See Clause 1 (1) (A) of the Supplement.

while ton under SA is the limitation ton - net tonnage plus the engine room space, the same as CLC 69.

2.4.3.4 Duration

The Supplement has a stated life of 5 years from 20th Feb, 1987. The question is: will it cease to be effective on 20th Feb. 1992 or will it be extended like the original TOVALOP? Although this has to be waited for, it is most likely that it will be extended.

2.4.4 Administration

TOVALOP is administered by the International Tanker Owners Pollution Federation Limited (ITOPF). A party to TOVALOP automatically becomes a member of the Federation. The Federation has some 3,200 members, operation 6,000 tankers.

The ITOPF takes measures to ensure that parties comply with the requirements in TOVALOP. They check if a participating owner has adequate financial security before they issue TOVALOP Certificates to his tankers as evidence of membership. They generally keep the functioning of the Agreement under review. However, there are only one or two out of the 20 employees dealing with the TOVALOP administering job. Most of its work nowadays is to provide the service to respond to marine oil spills for its members.¹

2.5 CRISTAL (the Contract Regarding a Supplement to Tanker Liability for Oil Pollution)

¹ Sun, L. H., Report to On-the-Job Training. Malmo: WMU, 1990. p4.

2.5.1 Introduction

The relationship between CRISTAL and TOVALOP is just like that between CLC and FUND. Tanker owners bear responsibility under TOVALOP and oil men contribute to the CRISTAL Fund to supplement the inadequate compensation provided by TOVALOP. The original name of the contract was the Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution. Yet the acronym remains unchanged.

It was first agreed on January 14, 1971 and entered into force on April 1 that year, having then a coverage of 70% of the world's receiving oil. Since then it has been amended from time to time to steadily increase the compensation level.

CRISTAL was originally devised to compensate only victims of oil pollution. Shipowner's relief was added later in 1972, after the establishment of FUND 71, in order to keep step with FUND. In 1973, it was amended to cover preventive measures before a spill and was again amended in 1978 to better mirror FUND 71.

The latest and most substantial change has been effective from Feb. 22, 1987. In 1988, it was estimated that 80% of the oil transported by sea was owned by CRISTAL parties.¹ The discussion here is based on this current version.

2.5.2 Scope of Application

CRISTAL applies to incidents occurred anywhere in the world, irrespective whether CLC or FUND applies or not, if only at

¹ Guide to Oil Spill Compensation. London: ITOPF & CRISTAL Ltd 1988. p 8.

the time of the incident the oil is owned by a CRISTAL party. However, if the incident takes place where CLC and FUND are in force, CRISTAL will, in addition to compensating any person (including tanker owner or bareboat charterer) for sustained pollution damage or incurred costs for removing threats, also undertake to pay an oil company party the same amount of money contributed by the company to IOPCF for the incident.

There are exemptions for CRISTAL. Pollution damage caused by a war act, a natural phenomenon, third party act or government negligence is excluded here. It follows the CLC 69 exoneration but diverges from the FUND 71 policy, which allows compensation to incident caused by "a natural phenomenon" and "a third party intentional act".

By Clause IV (D), CRISTAL is the last resort. It pays only when it can be shown that the claimant has exhausted all reasonable means of obtaining recovery from other sources.

2.5.3 Limit of Compensation

The present CRISTAL starts to compensate at the TOVALOP Supplement limit, and the limit under CRISTAL is:

Size of Tanker .	US \$
0-5,000 grt	36 M
5,000-140,000 grt	plus 733 per grt in excess
over 140,000 grt	135 M

In the event that more than one tanker is the polluter of the incident, the CRISTAL limit shall be determined by the largest tanker.

CRISTAL is further limited by a 2-year time bar from the date of the incident.

The unit of tonnage of a tanker is the same as TOVALOP Supplement, that is the gross registered tonnage as determined by the 1969 Tonnage Convention. It is also identical with Protocols 84 to CLC and FUND.

2.5.4 Administration

The Contract is administered by the Oil Companies Institute for Marine Pollution Compensation Ltd (Cristal Limited), a Bermuda-registered company. As at June 1, 1988, it has some 700 members, covering 80% of the world's receiving oil. The day to day handling of administrative matters and claims is dealt with by Marine Pollution Compensation Services Ltd (Cristal Services Limited), London, a subsidiary company of Cristal Ltd. It now has 3 staff members, headed by Mr. M. M. McCormack.

Cristal Ltd checks the applications and collects contributions and periodic calls from oil companies.

Unlike IOPCF, Cristal Ltd keeps a low profile in attracting more members, probably due to the temporary nature of it and that it is considered by the oil sector a "self-imposing burden".

Until now, no oil companies from PRC & USSR have entered into CRISTAL.

2.6 PLATO (Pollution Liability Agreement among Tanker Owners) & CRISTAL Revised '85

These short-lived regimes were developed only by the oil sector, essentially due to their dissatisfaction with the 84 version of CLC and FUND. The oil companies were unhappy about the higher limit imposed by the 84 regimes. They wanted the small and medium sized tankers to bear more under CLC, thus reducing the responsibility of the oil sector. They further disagreed to a wider coverage to include unladen tanker, hence they put this forward in 1985 PLATO and CRISTAL Revised. They were designed to be an interim solution pending the entrance into force of the 84 Protocols of CLC and FUND.

PLATO had its limits in 2 phases:

	pre-1990	post-1990
0-5,000 grt	\$ 10 M	\$ 15 M
5,000-105,000 grt	plus \$500/grt	plus \$600/grt
>105,000 grt	\$ 60 M	\$ 75 M

Its counterpart, the CRISTAL Revised '85 had limits:

	pre-1990	post-1990
0-5,000 grt	\$ 50 M	\$ 50 M
5,000-105,000 grt	plus \$850/grt	plus \$600/grt (5,000-117,143 grt)
>105,000 grt	\$ 135 M	\$ 75 M (>117,143 grt)

PLATO and CRISTAL Revised '85 was intended to replace TOVALOP and CRISTAL. As the overall result was the increased responsibility for tanker owners and decreased liability for the oil sector, the regimes were resisted heavily by tanker owners, represented by INTERTANKO (International Association of Independent Tanker Owners) and their insurers, the International Group of P & I Clubs. In the end, the

requirement for entry into force, that is 50 million grt tanker tonnage by March 31, 1986, never got met, and these 2 regimes "foundered before leaving port".

2.7 CLAIMS UNDER THE EXISTING REGIMES

Figures 4 & 5 show the channels to claim for compensation under existing regimes.

FIGURE 4 COMPENSATION FOR OIL SPILLS FROM TANKERS

	Primary Compensation provided by Shipowners			Supplementary Compensation provided by Cargo Owners	
	TOVALOP Standing Agreement	TOVALOP Supplement	CLC, 1969	CRISTAL	Fund Convention, 1971
Nature of regime	Voluntary plan	Voluntary plan	International convention	Voluntary plan	International convention
When does each apply?	When persistent oil threatens to escape or does escape from a participating tanker Tanker is not required to be loaded with cargo and no spill need occur	When persistent oil threatens to escape or does escape from a participating tanker Tanker must be loaded with CRISTAL-owned cargo although no spill of cargo need occur	When persistent oil escapes from a laden tanker No liability if tanker is unladen or if no oil is actually spilt	When persistent oil threatens to escape or does escape from a tanker Tanker must be loaded with CRISTAL-owned cargo and compensation paid by tanker owner up to TOVALOP Supplement limit	When persistent oil escapes from a laden tanker No liability if tanker is unladen or if no oil is actually spilt. Ownership of cargo irrelevant
Where can each apply?	Only when CLC, 1969 does not apply	Worldwide	In States party to CLC, 1969	Worldwide	In States party to CLC, 1969 and Fund Convention, 1971
Limits of Liability	US\$160 per limitation ton up to maximum of US\$16.8 million	US\$3.5 million for tankers up to 5,000 gross tons, rising to maximum of US\$70 million	US\$181 per limitation ton up to maximum of US\$19.1 million (see note 1)	US\$36 million for tankers up to 5,000 gross tons, rising to maximum of US\$135 million, including compensation paid by tanker owner	Total made up to US\$81.8 million, including any compensation paid by tanker owner under CLC, 1969 (see note 1)

Footnote 1: The limits of liability under the CLC, 1969 and Fund Convention, 1971 are based on specified units of account the US\$ equivalents of which vary depending upon exchange rates. Those shown above have been converted, to the nearest round figure, at the rate of conversion applying as at 1st June, 1988 (SDR = US\$1.364)

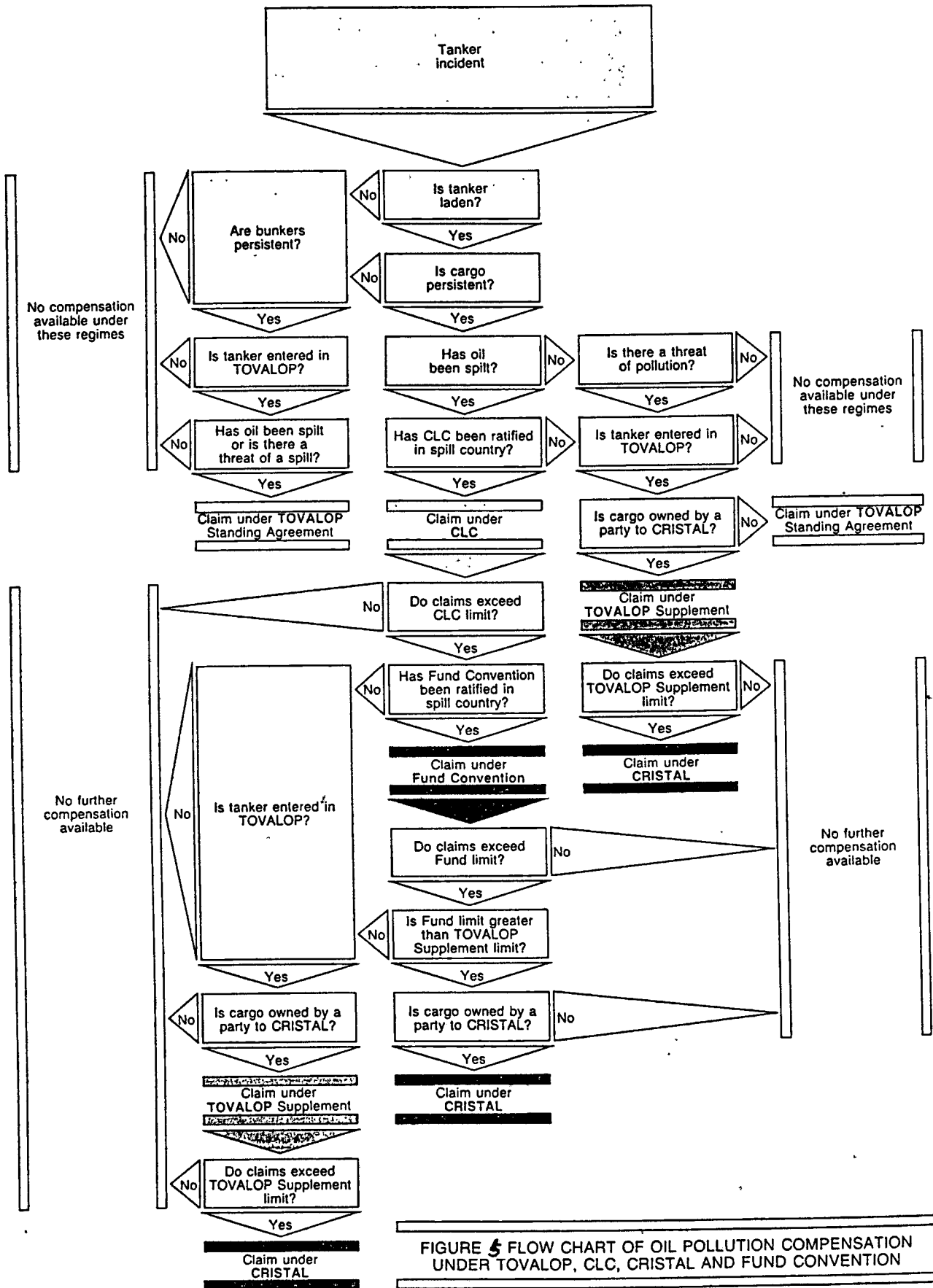


FIGURE 5 FLOW CHART OF OIL POLLUTION COMPENSATION UNDER TOVALOP, CLC, CRISTAL AND FUND CONVENTION

3 CHAPTER THREE FUTURE REGIMES

3.1 INTRODUCTION

The existing regimes for oil pollution liability and compensation has been about 20 years old. With the development of the size of tanker and oil movement by sea, and especially with the inflation, what seemed an enormous compensation amount at the Torrey Canyon time is virtually nothing faced with the Exxon Valdez.

Ever since the operation of CLC, FUND, TOVALOP and CRISTAL, there has been amendments to these regimes in order to cope with the compensation problem in the wake of the intermittent happenings of incidents. There is no doubt that the compensation level should be increased. But who and to what extent should each involved party bear the liability has been undergone a long way towards a major achievement. Following heavy debates between oil and shipping sectors and among governments, a drastic change was introduced at the International Conference on Liability and Compensation for Damage in Connexion with the Carriage of Certain Substances by Sea under the auspices of IMO in 1984. The Protocols agreed in fact created 2 new convention, CLC 84 and FUND 84. Although they have not entered into force, or even if they might be aborted, the adopted policies in these 2 new conventions will no doubt much influence the future development in this respect. Therefore it worth its while to have an examination into these regimes and try to foresee the future.

3.2 CLC PROT 84 (the 1984 Protocol to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969)

At the diplomatic conference held at IMO headquarters in London from April 30, for 4 weeks to May 25, 1984, a new version of convention on civil liability for oil pollution - CLC 84 came into existence. This convention substantially raised the compensation level and also expanded the coverage of the convention.

3.2.1 Scope of Application

SHIP

Ships under CLC 84 are extended, in addition to CLC 69, clearly to include not only when they actually carry oil in bulk but also for any voyage following such carriage.

OIL

"Oil" mean any persistent hydrocarbon mineral oil.....".
Whale oil has been removed.

POLLUTION DAMAGE

Environmental impairment and pure threat situation has been taken into account. Therefore, the definition "pollution damage" covers loss or damage by contamination, and costs of reasonable measures undertaken or to be undertaken to restore the environment. Cost of preventive measures is also included in pure threat situation.

GEOGRAPHICAL SCOPE

The convention applies to pollution damage caused not only in the territory and territorial sea, but also in the 200 nautical miles exclusive economic zone.

3.2.2 Channelling of Liability

There is a list of certain interested people whom no claim

for compensatiuon may be made against:

1. the servants or agents of the owner or crew members;
2. the pilot or any other person who provides services for the ship;
3. any charterer, manager or operator;
4. salvor;
5. any person taking preventive measures; and
6. all servants or agents of persons in the last three items.

The liability is channelled soly to the owner of the ship, the same as in the CLC 69.

For persons not listed here, say the shipyard, repairer, classification society etc, it is left open to the municipal law.

3.2.3 Limit of Liability and Conduct Barring the Right

3.2.3.1 Limit of Liability

The shipowner is strictly liable up to an enhanced level of the following:

ship size	Liability
0 - 5,000grt	SDR 3 M
5,000 - 140,000grt	plus SDR 420 per grt in excess
over 140,000grt	SDR 59.7 M

This is the essential change in the Protocol 84. The new provision put heavy burden on small shipowners. Taken 3,000 grt tanker for example, the owner is liable under CLC 69 for SDR 0.4 M, while under CLC 84 SDR it is 3 M, 7.5 times higher,

comparing with a 3 times increase on the oil cargo sector in the FUND 84.

There are also changes to the units of account, which now is the SDR, same as in Protocol 76.

Gross tonnage, determined by the International Convention on Tonnage Measurement of Ships, 1969, is introduced to replace the limitation ton.

These are done to be in align with the generally accepted units in international conventions.

3.2.3.2 Conduct Barring the Right

The shipowner shall lose his right to limit if the pollution damage is resulted from his personal act or omission, committed with intent to cause such damage, or recklessly and with knowledge that such damage would probably result. This wording, taken from the LLMC 76, is clearer and much restrictive than the CLC 69 wording. As Dr. Abecassis put it in his book¹, the new right to limit is almost practically "unbreakable".

3.2.4 Amendment Procedure

For CLC 69, any amendment thereto will have to convene a diplomatic conference to be agreed upon. This is time and energy consuming, rather difficult to make changes. This situation remained dominating for IMO conventions till 1973 and 1974, when MARPOL 73 and SOLAS 74 came into being. These two conventions adopted a genius invention called "tacit

¹ Abecassis, op. cit., p 244.

procedure"¹. Protocol 84 followed such policy by providing that an amendment shall be deemed to have been accepted unless a quarter of contracting party object. In so doing, there are some restrictions. That is no limit may be increased beyond 6% per year from Dec. 1, 1984 to the amendment adoption date, or 3 times the 84 limits, whichever is lesser.

3.2.5 Requirement for Entry into Force

The Protocol 84 shall enter into force 12 months after 10 states, including 6 each with not less than one million grt tanker tonnage, have ratified it. At present, there are 6 contracting countries: Australia, France, Federal Republic of Germany, Peru, South Africa and 11 other signatories.

3.3 FUND PROT 1984 (Protocol of 1984 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971)

As its sister convention, CLC 69, FUND 71 was also amended at the 1984 Conference in London. By adopting the Protocol 84, the amended FUND 71 has become a new convention - FUND 84.²

3.3.1 Compensation

"Ship", "pollution damage", geographical scope etc is identical with the CLC 84.

FUND 84 creates a new IOPC Fund, IOPC Fund 1984, which is

¹ An amendment shall be deemed to have been accepted if no more than one-third of contracting government

² IOPC Fund Annual Report, 1987. p 47.

legally different from the IOPC Fund 1969. Art 4 provides that IOPCF 84 shall be liable for that part of pollution damage which the victims remain inadequately compensated under CLC 84. Reasonable costs of preventive measures taken by the owner is also accounted for here.

However, it is exempted from such liability on the same grounds as FUND 76: war act, government ship or not a ship-generated incident.

There is also uncompensated area in the transitional period. This is provided by the proviso in Art 36 bis (b), when the pollution damage occurs in a state which is party only to FUND 84 but not FUND 71. This state will be deemed to have been a party to FUND 71, and FUND 84 only compensates those part that is above the FUND 71, leaving the part between CLC 84 and FUND 71 uncompensated. See figure 3-2.

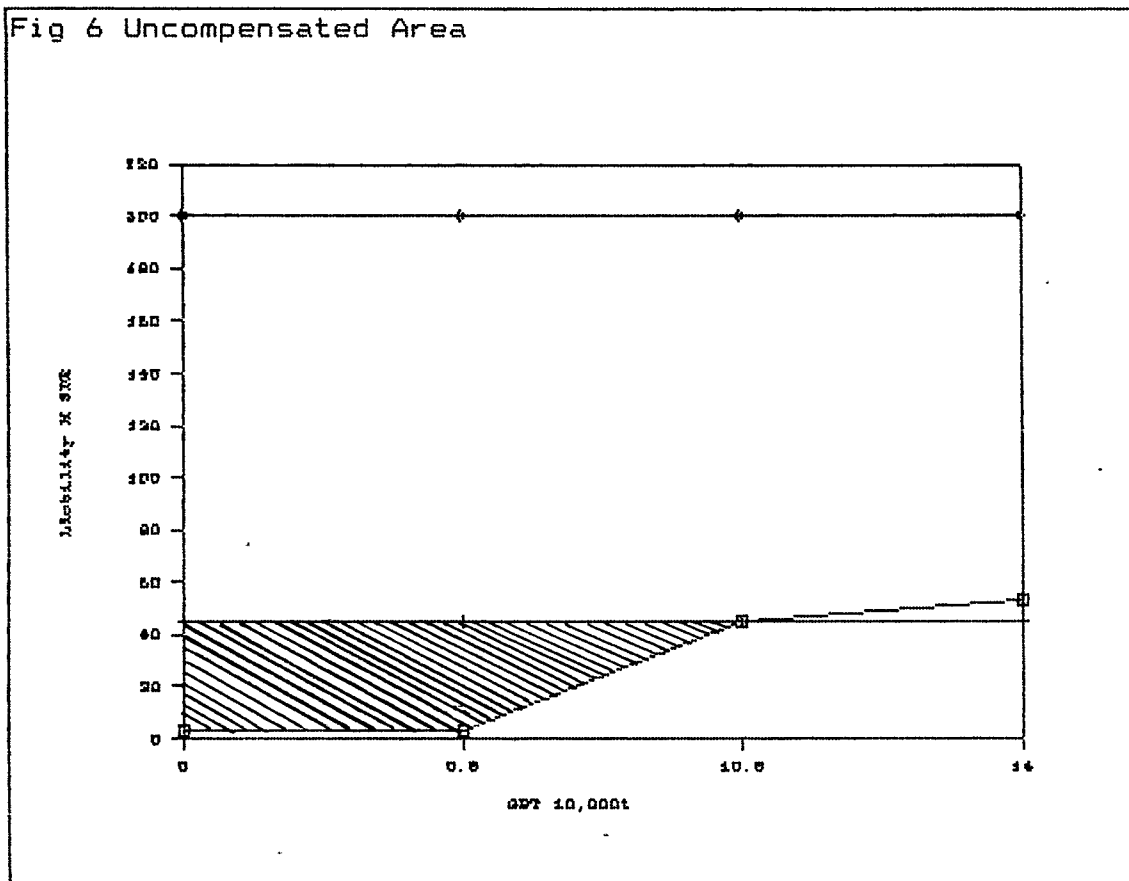
3.3.2 Limit of Compensation

Amending the limit was the most important aim of this Protocol. The final version adopted was originated from a US proposal. This was so done in order to attract the US joining the new regime. There are 2 limits here, one is the basic limit, the other is the expanded limit, which could not be achieved without the US's accession to FUND 84.

3.3.2.1 Limit

Art 4 (4) provides that the total sum of the amount payable under FUND 84 and the amount actually paid under CLC 84 shall not exceed SDR 135 M. This same limit applies in case where the damage is resulted from an exceptional natural phenomenon.

Fig 6 Uncompensated Area



The shadowed area is not compensated.

The SDR 135 M limit shall be expanded to 200 M with respect to any incident occurring during any period when there are three parties to this Convention which altogether received , during the preceding calendar year, contributing oil of 600 million tons or more.

This 600 million tons requirement can not be reached without the participation of the United States and 2 other large oil-receiving countries such as Japan, Italy, France or the Netherlands.¹

¹ Abecassis, op. cit. p 272.

The distribution of the amount available under FUND 84 shall be calculated at a pro rata basis.

Further amendment to the limit is the same as that contained in the CLC 84.

3.3.2.2 Abolition of Shipowner Relief

Another significant amendment is the deletion of Art 5 in FUND 69. Therefore, under FUND 84, shipowners are no longer indemnified. This is taken into consideration as part of the overall increase of shipowner's liability. It roughly accounts for one quarter of the CLC 69 liability.

3.3.2.3 Units

Units of account and tonnage have been amended to the internationally recognized SDR (for IMF members) and GRT, same as in CLC 84.

For non-IMF members, such a unit equals to 15 gold francs. Such units of account shall be converted into national currency on the date of the decision of the Assembly of the FUND as to the first date of payment of compensation.

3.3.3 Administration

3.3.3.1 IOPC Fund 84

A new organization - IOPC Fund 84 - is created under 84 Protocol, although the staff of IOPC 69 will be deployed for the entity to administer FUND 84. An amendment on the new IOPCF 84 is the deletion of the Executive Committee, whose rights and duties will be taken over by the Assembly and ad

hoc committees.

3.3.3.2 Contributions to IOPCF 84

A significant change here to the FUND 69 is the removal of initial contributions. Art 11 has been deleted, aiming at facilitating the entry into force of the new convention.

The annual contribution method remains the same: general fund and major claims fund. A slight change is the lower boundary of expenditure constituting the major claims fund, now being SDR 4 M.

3.3.4 Requirement for Entry into force

Art 30 of FUND Protocol 84 provides that it shall enter into force 12 months following the date on which at least 8 states, with at least 600 million tons of contributing oil during the preceding calendar year, have become parties to it. However, it shall not enter into force before the CLC 84 enters into force.

At present, there are 2 contracting parties: France and FRG. There are 10 other signatories.

3.4 Comparison with other regimes

For the convenience of comparison with different limitations under various regimes, it is taken that one grt equals to 0.92 (0.91875) limitation ton, which is used in ITOPF booklet.¹ Fig. 7 and Table 2 show the differences among the regimes.

¹ A Guide to Oil Spill Compensation. London: ITOPF & CRISTAL Ltd., 1988. p4.

Fig 7 Liability for Oil Pollution

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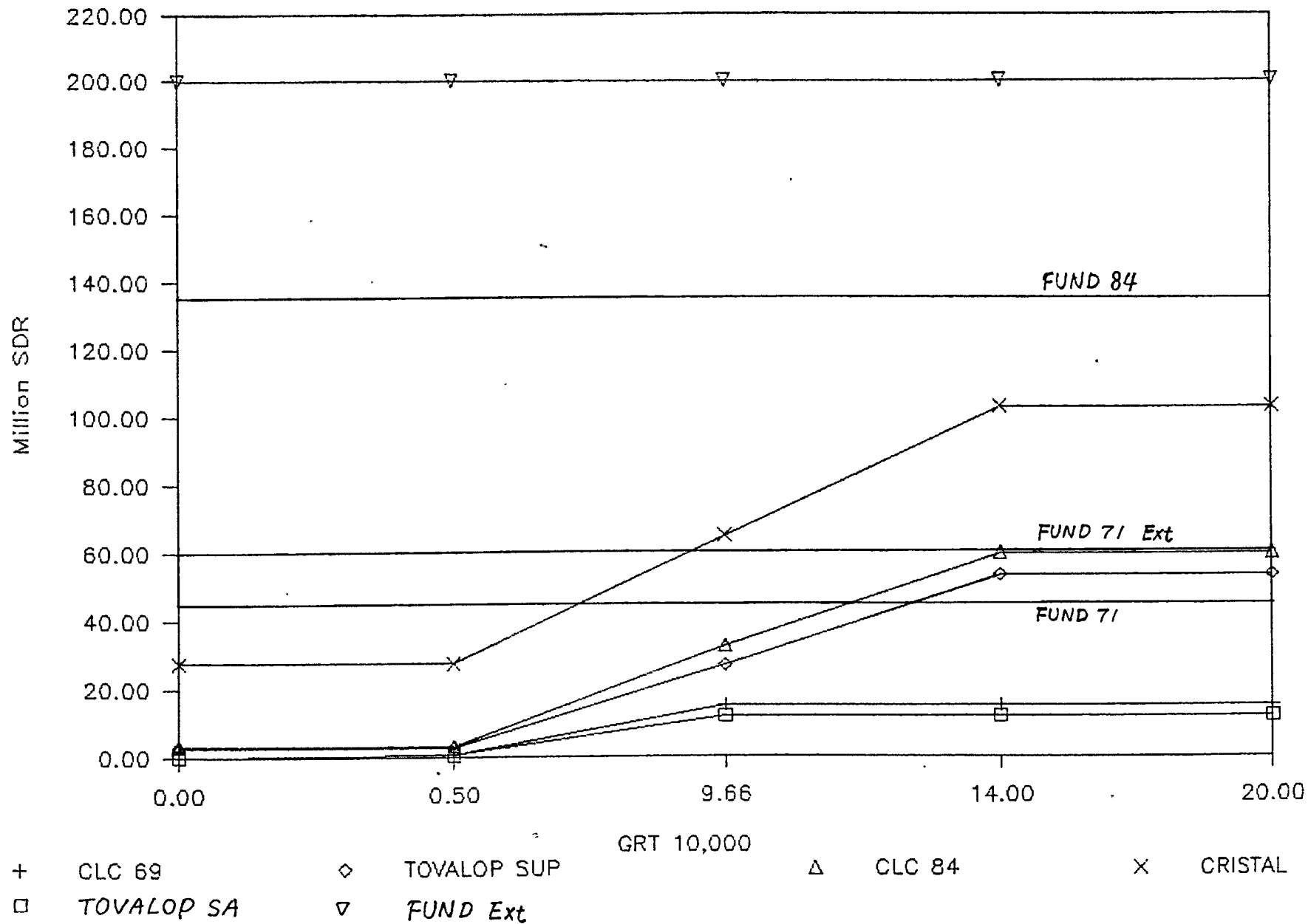


Table 2

Limit of Liability under Different Regimes

1990.09.01

CLC		FUND		TOVALOP		CRISTAL \$
69	84 GRT SDR	71 SDR	84 SDR	SA	Supplement GRT \$	
0-105000ton (0-96600grt)	0-5000	basic	basic	0-105000ton (0-96600grt)	0-5000	0-5000
133sdr/ton (122sdr/grt)	3 m	45 m	135 m	\$160/ton (sdr122/ton)	3.5 m (sdr2.7m)	36 m (sdr27.4m)
>105000ton (96600grt)	5000-140000	extended	extended	>105000ton (96600grt)	5000- 140000	5000- 140000
14 m sdr	+420/grt	60 m	200 m	\$16.8m (sdr12.8m)	+493/grt (sdr376/grt)	+733/grt (sdr559/grt)
	>140000				>140000	>140000
	59.7 m				70 m (sdr53.3m)	135 m (sdr103m)

Note: 1. Figures in () are converted into sdr/grt at 1 sdr/grt = 0.92sdr/grt. This rate was used

"A Guide to Oil Spill Compensation", London: TOVALOP & CRISTAL, 1988, p 4.

2. \$1 = sdr0.762, rate at 1990.01.01.

3.5 Perspective of the Future Regimes

These protocols had been laid aside since its coming into existence for 5 years until the Exxon Valdez disaster took place in March 1989 in Alaska, USA. The incident soon caught world's attraction among other things, on the increasing need to have a higher compensation under an international umbrella. Particular attention has been given to the requirement of entry into force for these 2 protocols. As we have seen from 3.2 and 3.3 in the chapter, the entry into force of the 2 protocols depends much on the attitude of the US. Therefore, it is very important to look into the topic in the States.

3.5.1 Debate in the US

Disaster in nature is the Exxon Valdez, it is on the other hand a catalyst for the US government and the public to turn their attention to oil pollution liability and compensation problems.

GOVERNMENT

The US government has, for a long time, the intention to join CLC & FUND. In May 1970, President Nixon believed that "the danger of oil pollution is an urgent matter for international regulation" and tried to seek the approval of Congress for the participation of CLC 69.¹ The Reagan administration again expressed their willingness to become party to both the CLC 69 & FUND 71.

Now under the Bush regime, the Secretary of Transportation,

¹ Hill, Christopher, Maritime Law. London: Lloyd's of London Press Ltd, 1989. P 285.

Mr. Skinner, in his report to the President on the Exxon Valdez incident, recommended that the Protocols should be implemented into a comprehensive US system for liability and compensation as soon as possible.¹

All of these administrations well understood that oil pollution problems cannot effectively be solved exclusively as a national problem.

However, US Senate is not of such opinion and a long debate has been in the way in the Congress as to the ratification of Protocols 84.

SENATE

However, US Senate is not of such opinion and a long debate has been in the way in the Congress as to the ratification of Protocols 84.

The Senate is not in favor of the Protocols. Senator George Mitchell of Maine, as Chairman of the Environmental Protection subcommittee in recent years, resisted the federal comprehensive oil spill legislation and the passage of the Protocols. He introduced unlimited shipowner and cargo liability in his own bill, S. 686. There are no provisions for the Protocols and it didn't pre-empt state laws in any way. This bill was passed last August. It is favored by environmentalists and states.²

HOUSE OF REPRESENTATIVE

¹ Intertanko Annual Report 1989. Oslo. p 257.

² Ibid. p 10-11.

The House of Representative has a different point of view. It passed H.R. 1465 on Nov. 9, 1989. It provides for the implementation of the 84 Protocols, although it too would not preempt state law. shipowner's liability was \$600 per grt and the cargo owner another \$600 per grt.

As at June this year, the debate in Congress was concentrating on whether comprehensive oil spill legislation should contain the 2 protocols.¹ In an attempt to break the impasse over the protocols, Mr. G. Studds proposed a new compromise solution. It allows the US to participate in the protocols for 5 years, when the President would renounce US participation unless it is proved that:²

(1) participation by the US in the conventions has not been, and will not be, any less effective than Federal and state laws in preventing incidents and is guaranteeing full and prompt compensation for damages resulting from incidents, and

(2) the conventions have been revised adequately to make them comparable to this Act, including with respect to:

- a) standards of, defenses to, and limits on liability for an incident; and
- b) the scope and measures of damages (including natural resources damages) recoverable for an incident."

The proposal also directs that the 84 Conventions do not

¹ "Oil spill Conference continues", Oceans Policy News. June 1990. p 5.

² *ibid.*

preempt any claim under a law other than the Conventions that are not recoverable under the Conventions. This proposal was welcomed by the Administration. This proposal is still on its way to be ratified.

3.5.2 International Pressure

As the Protocols were so structured that, without the participation of the US which receives most oil that any other single country, it would be very difficult, if not impossible, for them to enter into force. Therefore, contracting parties, now 6 to CLC 84 and 2 to FUND 84, as well as other states will be discouraged if the US fails to ratify the protocols. This is true also since the 84 protocols were based much on a US proposal and now it refuses to ratify them!

The shipping and oil cargo industry, for fearing that the US legislators would impose unlimited liability on them or very high limitation, is much in favor of the 84 protocols.

Intertanko, the tanker owner's representative, stands at the forefront promoting the US's ratification of the 2 protocols. In 1989 especially, Intertanko spent much time and energy lobbying the US parliament. It monitored the process in the Congress debate, submitted letters to the Senate's Committee on Foreign Relations¹, the Senate's Subcommittee on Environmental Protection and the House of Representative's Subcommittee on Water Resources. In March this year, when this author

visited the Intertanko office in Oslo, Mr. K.R. Fuglesang said that they were going to intensify its activities in Washington. In addition to having Rear Admiral Sidney A.

¹ See Intertanko Annual Report 1989, p 23 for the full letter.

Wallace as its counsel, it also retained the Washington law firm Dyer, Ellis, Joseph and Mills, and an arrangement was made with a public relations firm to deal with press aspects.

The London-based IOPC Fund secretariat is also very concerned about the US action. It urged the US to ratify early the 2 protocols.

A shipowner faces unlimited compensation claims if its vessel spills oil in the States. Absence of negligence is not a defence. This situation makes the owners very worried at trading with US. They themselves have to take some action in order to safeguard business.

Shell announced in June that its tanker fleet would no longer trade to the US mainland for fear of the risks. Elf Aquitaine - the French oil giant - followed Shell in not calling at US mainland ports. The French energy group will also toughen up its chartering procedures.¹

The fact of stopping calling at US ports has certainly put pressure on the Congress to ratify the 84 protocols.

3.5.3 Advantage for the US

Both the existing statutory regimes and the 84 Protocols are aimed at an expeditious compensation for damage caused by oil pollution from ships, and the CLC 69 and FUND 71 have been successfully proved this point. The protocols, having improved the current regimes to a great extent, are expected to do more

¹ Smith, Leigh, "Elf to follow Shell in US port boycott", Lloyd's List, 1990-06-22.

so. The US will no doubt benefit once ratifying them.¹

- 1) The claims procedure is simple for the claimants since the liability is channelled to the shipowner.
- 2) The cover under Protocol 84 will cover all the claims up to now, except the Exxon Valdez.²
- 3) The protocols provide for a uniform system of compensation acceptable to most nations.
- 4) Protocols would grant automatic jurisdiction in US courts over the owner of a foreign flag vessel.³
- 5) They provide an internationally enforceable system, far superior to the situation prevailing where one pollution incident falls under the jurisdiction of 2 or more court systems with widely varying regulations.
- 6) P & I clubs are unwilling to insure, or at a high premium to insure, vessels calling at US ports. This will remain so if the US fails to ratify these protocols.
- 7) US shipowners will be better protected. Although there are voluntary schemes, these schemes were designed only for an interim purpose. The existing TOVALOP and CRISTAL will be terminated in 1992.
- 8) 84 protocols have extended damage caused to EEZ. The US's participation will safeguard spills caused in EEZ, which would have covered the Norwegian tanker "Mega Borg" that exploded on June 10, 1990, 60 miles offshore. Under the current international law, coastal states have limited authority over it.
- 9) Diplomatically good for US. The protocols' limits were based on the US proposal and many countries have given in

¹ See Intertanko Annual Report 1989. pp 23-27.

² Even for this, the US may make supplementary regulation for claims which are not covered by the Protocols.

³ The foreign owner will be subject to FUND 84. There is no fear that the foreign owner may be financially incapable.

in order to attract the US. Failure of joining will disappoint the others and the US would lose its credibility, leading to disadvantages in future negotiations within the international maritime community. Ratification, on the other hand, will demonstrate that the US is ready to participate in the international solution of environmental problems.

10) Finally, as Congressman G. Studds pointed out in his letter to meeting of Congress:¹ "A global oil pollution liability and compensation system is in the best interests of the US". Even though the 84 protocols are currently unsatisfactory to the US and should be amended, "only through participation in the protocols will the US be able to negotiate their improvement".

3.5.4 Fate of the 84 Protocols

3.5.4.1 CLC Protocol 84

As mentioned in 3.1.5, the requirement for CLC 84 is 10 contracting states; including 6 each with more than one million grt tanker tonnage. After reaching this target, it will enter into force 12 months later.

Now there are 5 contracting parties to CLC 84, among which France and FRG have more than 1 million grt.

There are 11 signatories not having ratified it (See Annex II) but keeping watch on the US Congress debate. If the US is to include the 2 protocols in its comprehensive oil spill legislation, the rest of the signatories and others will be encouraged to ratify the protocols. Among the above-mentioned

¹ Oceans Policy News. June 1990. p 6.

signatories, China, Denmark and the UK each has more than a 100 million grt tanker fleet. These countries, together with some other countries such as Italy and Japan, will most likely be encouraged to join within 2 years time.

Therefore, if the US is to ratify it this year or next, Protocol 84 might be able to reach its requirement of 10 parties and 6 million ton grt around the end of 83, hence it would come into force in the year 1994.

Even if the US does not ratify it, there is still a slight chance for CLC 84 to come into force, just as has happened to CLC 69. In that case, six or more years will have to wait for.

3.5.4.2 FUND Protocol 84

A similar provision of 8 states with 600 million tons of contributing oil is required for FUND 84 to come into operation.

Theoretically, this can be reached without US participation. That is when the 5 largest participating parties to FUND 71 plus any one country become parties. But if the US, the world's largest oil importer, does not join. Japan, which constitutes 26.6% of the 857 million ton FUND 71 contributing oil in 1988¹, is most likely to follow, and so will some other countries. This will make the entry into force virtually impossible.

As mentioned in 3.4.2, US participation is still under debate in Congress. The possible outcome for that might be a

¹ IOPC Fund Annual Report, 1987. p 47.

compromise, that is, ratification subject to certain conditions.

If the US is to join, FUND 84 may come into force some 2 or 3 years later than its counterpart, CLC 84.

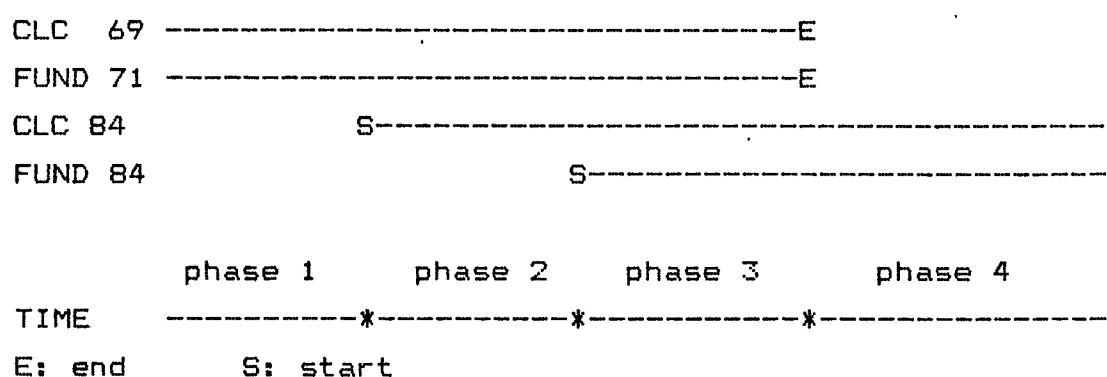
3.5.5 Analysis of the Regimes in Future Applications

Before Feb 20, 1992, the applicable regimes will remain the same: CLC 69, FUND 71, TOVALOP & CRISTAL.

If Protocol 84 does not take effect before 1992, the present TOVALOP and CRISTAL will be most likely to be extended for some further years before its termination.

More complex is in the transitional period, so called in Protocols 84, when the applicable regimes, in addition to TOVALOP and CRISTAL (whether further revised or not), will be made up by the co-existence of CLC 69 & 84, FUND 71 & 84, or their combination, dependent on the entry into force of 84 Protocols. The applicable regimes for a state party both to CLC 69 and FUND 71:

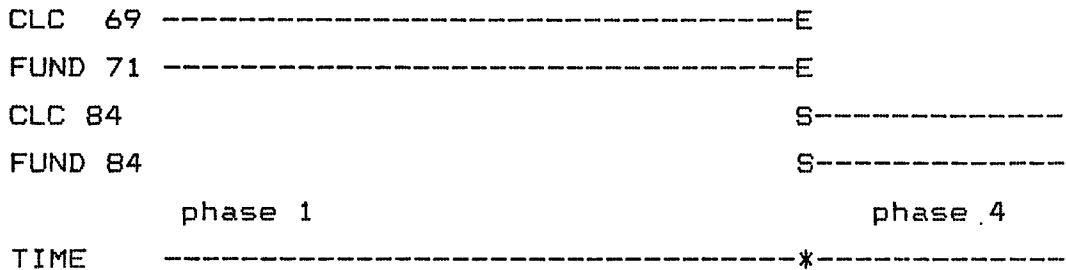
1. Phased-in solution



There exists an 18- month transitional period: phase 2

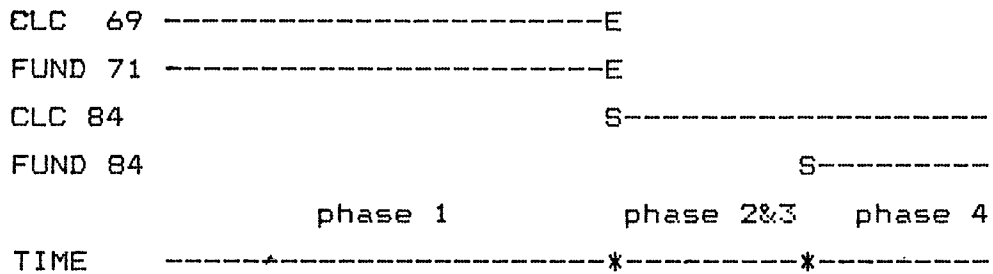
and phase 3. Phase 3 is the co-existence period of all different regimes.

2. Delayed denunciation solution

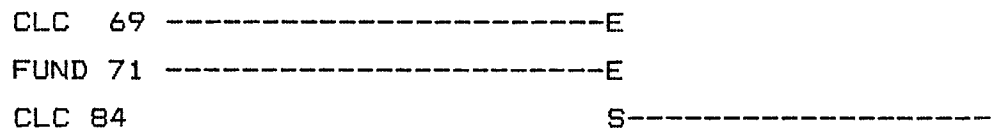


There is no transitional period here.

3. The immediate denunciation option



4. CLC 84 only option



So, there exists a period, after the entry into force of 84 Protocols, of mixed convention parties. Dr. Abecassis has analyzed some theoretical cases in his book.¹ The following countries may co-exist in the future:

¹ Abecassis, op. cit., pp 247-251.

CLC 69 parties;
CLC 69 & FUND 71 parties;
CLC 84 parties;
CLC 84 & FUND 84 parties;
CLC 69 & CLC 84 parties;
CLC 69, CLC 84 & FUND 84 parties;
CLC 69, FUND 71 & CLC 84 parties;
CLC 69, FUND 71, CLC 84 & FUND 84 parties;

Meanwhile, TOVOLOP and CRISTAL may also exist and applicable to their member vessels, adding more complexity and confusion.

Uniformity at an international stage cannot be really achieved without each state's active participation in the new regimes.

4 CHAPTER IV OIL POLLUTION COMPENSATION IN PR CHINA

4.1 INTRODUCTION

4.1.1 General Shipping Introduction

China is a large continental country on the west coast of the Pacific. It has a coastline of 18,000 kilometers along its mainland and 14,000 kilometers around its islands. Shipping, has long been a very important means of transport for domestic and foreign trade.

As early as 2000 years ago, in the reign of Han Dynasty, foreign trading vessels had been received by Southern Chinese ports.¹ In the Ming Dynasty (1368 - 1644 AD), Chinese shipping was already the most advanced one in the world. Its fleet sailed to Ceylon, India, the Persian Gulf and Africa.²

However, the real boom of a modern fleet is of only 40 years old. It has developed from 201 ships, 402,417 grt to the present 1,907 ships, totalling 13.5 million grt, 3.1% of world total.³

4.1.2 Oil Industry

Despite that petroleum was known in China some 900 years ago and the first oil well was drilled in Sichuan Province in

¹ Dept. of Transport Administration of the Ministry of Communications, "China's Principal Ports for Foreign Trade". Beijing: People's Communications Publishing House, 1990. p 72.

² L.H. Sun, The Situation of Ports in China - Problems Encountered, Possible Solutions. WMU: Feb. 1989.

³ Figured at 1989-04-01. Shipping Statistics. Bremen: Institute of Shipping Economics and Logistics, May 1989. p 11.

Table 3
Chinese Merchant Fleet 1960-1989

Year	No.	Gross Tonnage
1960	201	402,417
1961	212	472,677
1962	219	522,481
1963	215	502,038
1964	216	535,427
1965	213	551,143
1966	231	669,299
1967	247	772,125
1968	239	765,545
1969	237	791,893
1970	248	867,994
1971	265	1,022,256
1972	286	1,181,179
1973	323	1,478,992
1974	360	1,870,567
1975	466	2,828,290
1976	551	3,588,726
1977	622	4,245,446
1978	713	5,168,898
1979	846	6,336,747
1980	955	6,837,608
1981	1,051	7,653,195
1982	1,108	8,056,849
1983	1,179	8,674,599
1984	1,262,	9,300,358
1985	1,408	10,568,236
1986	1,562	11,566,974
1987	1,773	12,341,477
1988	1,841	12,919,876
1989	1,907	13,513,578

Source: Lloyd's Register of Shipping Statistical Tables, 1989.
p 30.

Note: Ships under 100 grt are not included.

China in 1521¹, the large scale oil production started only from 1960s, when Daqing oil field (now it has become a city) was discovered. With the new technology for oil exploration and exploitation, oil industry grew drastically from 1 million tons in 1956² to 136 million tons in 1988 (see Table 4-2). China now is the 5th largest oil producing country in the world.

Table 4 Oil Production in China

YEAR	PRODUCTION (mill tons)	CONSUMING (mill tons)	BALANCE (mill tons)
1975	77.0	68.1	8.9
1980	105.8	90.3	15.5
1981	101.0		
1982	101.7		
1983	106.0		
1984	114.5	87.8	26.7
1985	124.9	97.3	27.6
1986	130.7	101.4	29.3
1987	132.9	104.0	28.9
1988	136.1	106.0	30.18

Source: Shipping Statistics Year Book, 1989, ISL. Bremen. pp 108,112.

¹ Yi, Y.F., The Control of Oil Pollution from Shipping Activities. WMU: 1988. p 75.

² *ibid.* p 27.

4.1.3 Oil Transport

4.1.3.1 Overall Volume

Meanwhile, oil transport volume has also been increased. The major oil fields are located mainly in the north eastern part of China, such as Daqing and Liaohe oil fields, representing 50.4% of the total production. While 86%¹ of this has to be shifted to the southern part, where the major refineries and other heavy industries are.

The majority of oil movement is done by water transport. Table 4-3 shows that in 1986, waterborne oil transport reached 84 million tons, among which 66 million was done by sea.

With the further development of national oil industry, the waterborne oil volume is expected to reach 100 M tons in 1990 and 180 M tons in 2000.²

It is worthwhile to mention that along with the "open door" policy for Chinese^f economic reform, oil export has also increased. (see Table 4-2) These exports are transported by national as well as foreign fleet. There were about 400 - 500 foreign flag tankers calling at Chinese ports.³

4.1.3.2 Tanker Fleet

To cope up with the oil industry, China also maintains a tanker fleet for the oil transportation. As at Jan. 1, 1989,

1 Y.F. Yi, op. cit. p 82.

2 "A study on in China", RIWT. op. cit. p 5.

3 Ibid.

Table 5 Waterborne Oil Transport in China

Years	Oil	Total	Units: million tons	
			Sea	River
1979	Petroleum	50.17	36.79	13.38
	Crude oil	39.48	29.69	10.15
1980	Petroleum	52.95	38.62	14.33
	Crude oil	40.95	30.00	10.95
1981	Petroleum	51.94	38.66	13.28
	Crude oil	39.59	29.57	10.02
1982	Petroleum	53.39	39.98	13.41
	Crude oil	40.61	30.42	10.19
1983	Petroleum	59.86	44.71	15.15
	Crude oil	42.44	31.13	11.31
1984	Petroleum	68.03	52.17	15.86
	Crude oil	49.78	37.77	12.01
1985	Petroleum	79.00	63.36	15.64
	Crude oil	59.49	47.69	11.80
1986	Petroleum	83.71	65.80	17.91
	Crude oil	61.18	47.82	13.34

Note: Crude oil is part of the petroleum here.

Source: "A Study on the Establishment of An Oil Pollution Fund in China". Beijing: Research Institute of Water Transportation, MOC. 1988. Table 2.

Table 6 Tanker Fleet Profile in China

1989.1.1

size ton	0-999	1000-1999	2000-2999	3000-3999	4000-4999	5000-7499	7500-9999	10000-15000
no.	10	29	3	32	6	29	7	5
1000dwt	5.8	40.2	6.5	112.2	28.7	157.5	59.6	62.1

size ton	15000-19999	20000-29999	30000-39999	40000-49999	50000-59999	60000-69999	70000-79999	total
no.	25	22	6	2	6	9	1	192
1000dwt	411.0	552.9	193.6	87.7	321.1	561.0	75.5	2675

age	0-4	5-9	10-14	15-19	20-24	25-	total
no.	9	20	53	42	30	38	192
%dwt ¹	11	13	30	15	18	13	100

Source: Shipping Statistics Yearbook 1989. Bremen: ISL. pp 52, 253.

¹ These figures are calculated from "Lloyd's Register of Shipping Statistical Tables 1987". p 29. Therefore, it should not be treated as exact figures on 1989.1.1.

there were 192 oil tankers (300 grt and over), with 2.7 million deadweight tonnage, 1.1% of world total. Most of these tonnage was owned by COSCO Dalian Branch and Shanghai Maritime Transportation Bureau. Others are owned by local companies and companies under the Ministry of Foreign Trade.

4.2 Oil Pollution in China

The boom of oil industry and oil transportation inevitably has led to an increase of pollution incidents in Chinese waters.

4.2.1 Operational Pollution from Ships

China is a contracting party to Marpol 73/78 and SOLAS 74/78. They entered into force for China on Oct. 2, 1983 and March 17, 1983 respectively. PRC's vessels have been fully in compliance with these regulation and the Chinese authority, the Harbor Superintendency Administration, also undertakes the port state control those visiting vessels.

Nevertheless, so long as a vessel carries oil or it has fuel oil as bunker on board, the operational pollution will always occur: Oil may be overflowed during loading; there may be leakage in the process of transfer of oil either from ship to ship or from terminal to ship; illegal pumping out of dirty ballast water and legitimate discharge of tank cleaning water, oily ballast, machinery space bilges etc.

So far, there is no official statistics on the operational oil pollution and it is not easy to collect these data. However, it is interesting to look at a figure given by Mr Yi in his paper "The Control of Oil Pollution from Shipping

Activities"¹. He suggested , by purely theoretical calculation, a rough figure between 5,000 - 5,500 tons annually dumped to sea from Chinese ships. This amount has certainly contributed to the detriment of marine environment. But as the ballast water etc is mostly discharged far away from coast and only when the ship is navigating thus oil is better absolved by sea water, what a seemingly high proportion of operational pollution might not be that serious. Since operational discharge is legitimated under international conventions and normally not covered by international liability regime, a detailed discussion will not be included in this work.

However, it might be of use to point out that operational discharge is strictly controlled to be in accordance with the Regulations Concerning the Prevention of Pollution of Sea Areas by Vessels, PRC and any violator of it may be, in addition to the compensation for the damage, subject to a fine of RMB 100,000 (roughly \$ 21,000).²

4.2.2 Pollution from Offshore Industry

Although this is also not within the scope of this work, it is worthwhile to have a look into the offshore oil pollution simply to integrate the marine oil pollution situation in China. Almost from the start of the Chinese offshore oil industry, there came the offshore oil spills. As can be seen from Table 7, there was a major spill in 1978, when not only 113 tons of crude oil flowed out but also loss of lives was resulted.

¹ Yi, Y.F. op. cit. pp 86 - 90.

² Art 47 of the Regulation.

Table 7 Offshore Oil Spills

Date	Location	pollution source	Amount (ton)
197805	Central Bohai	Drilling platform	113
19790509	Bohai	Production platform	6.6
197907	Bohai port	Bohai No. 4 Drilling ship	14
197908	Bohai	Bohai No. 3 Production platform	38
19810214	Bohai port	Bohai No. 4 Supply ship	5.7
19860820	Bohai	Supply ship	3.5

Source: Lu, M. Z., Oil Spill Prevention and Treatment in Offshore Oil Industry of China, Oil Spill Conference 1989, USA. p 236.

Since the offshore oil industry is fastening its step to have more exploitation, it is almost certain that both operational and oil spill pollution thereto will be more significant to the marine environment and should be paid more attention to.

4.2.3 Accidental Spills from Ships in China

It is the accidental spills that cause much damage and much public newsworthy. If the oil is spilled in a coastal tourist place, such as the Feoso Ambassador in Qingdao, 1983, the damage and consequential impact is much greater.

4.2.3.1 Frequency of Spills

As is shown in Table 6, and Fig 8, there were 386 occurrences of oil pollution in China during 1976 - 1986, with an average of 35 incidents each year. Most of these were minor incident with less than 1 ton oil spilled. They constituted 78% of the total accidents.

There were 12 major incidents (or significant spills, as defined by IMO for spills over 100 tons of oil). See Table 9. These spills concentrated on 3 parts: Qingdao, Shanghai and South Guangdong. (see Fig 9) Such major spills occurs on an average of once a year.

It is noted from Table 9 that since 83, more foreign flag tankers have been involved in the accidents.

4.2.3.2 Amounts of Spills

As illustrated by Table 7, a total amount of 1,6362.2 tons of oil was poured into the sea, averaging 1,487 ton per year. This was due mainly from spills of more than 100 tons, which accounts for 98%. Therefore, for ease to analysis, spills under 100 tons may be neglected. The Table also shows that in the past several years time, 'accident over 1000 tons of oil were dominating the significant spills. such large amount of oil spilled certainly cause much more damage to the marine environment.

The single largest oil spill is the Nanyang accident. The Nanyang tanker was owned by Hongkong Ocean Shipping Co. with a Somalia flag. She was carrying 16,488 tons of Chinese crude oil on her way from Qingdao to Zhanjiang on February 16, 1976. She then collided in heavy fog with a Netherlands vessel at 115.42.5 E, 22.24.5 N and sank into the sea, resulting in a spill of 8000 tons of crude and fuel oil. The oil soon spread to the coastal beach, severely damaged the fishery and aquaculture etc. Compensation for the spill was 7.9 million RMB, including 1.5 million RMB for cleanup cost.

Table 8
Frequency of Oil Spills in China
1976 - 1986

Year	No	0-1T	1-10T	10-100T	>100T
1976	16	2	8	3	3
1977	25	18	6	0	1
1978	24	16	6	0	2
1979	23	20	2	0	1
1980	35	24	10	1	0
1981	41	32	8	1	0
1982	43	37	6	0	
1983	45	41	2	0	2
1984	35	26	5	1	3
1985	53	46	5	2	0
1986	46	39	6	1	0
Total	386	301	64	9	12

Table 9
Amounts of Oil Spills in China
1976 - 1986

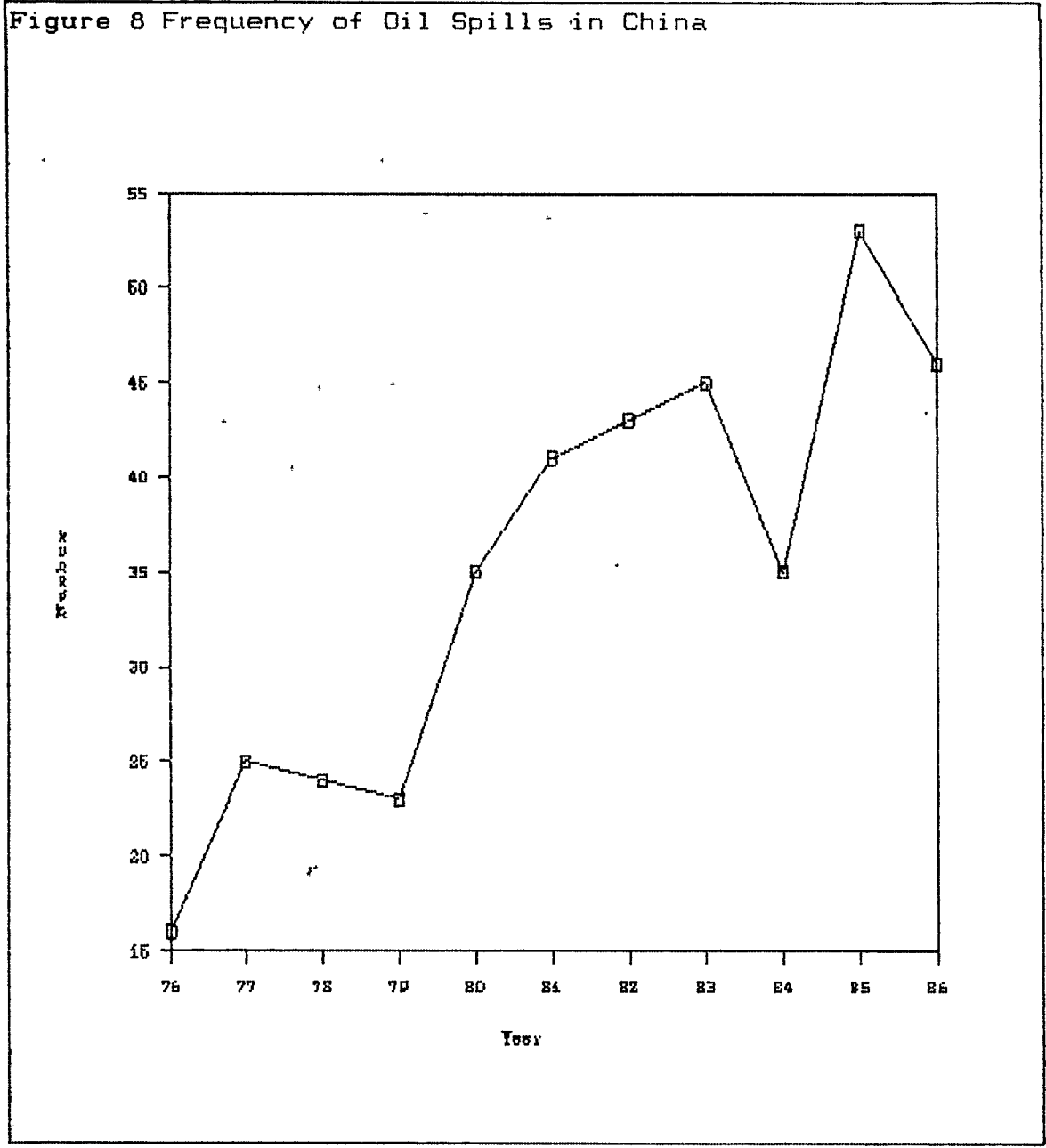
Year	No	0-1T	1-10T	10-100T	>100T
1976	8611.6	0.8	20.8	60.0	8530.0
1977	375.5	4.5	21.0	0.0	350.0
1978	861.4	1.9	25.5	0.0	834.0
1979	358.5	1.0	2.5	0.0	355.0
1980	55.9	3.9	12.0	40.0	0.0
1981	38.9	6.9	22.0	10.0	0.0
1982	17.4	6.4	11.0	0.0	0.0
1983	4101.3	3.3	5.0	0.0	4093.0
1984	1871.3	2.8	6.5	20.0	1842.0
1985	32.8	3.8	9.0	20.0	0.0
1986	37.7	4.1	12.6	21.0	0.0
Total	16362.3	39.4	147.9	171.0	16004.0

Table 10
 Compensation of Oil Spills in China
 1976 - 1986

Year	No	0-1T	1-10T	10-100T	>100T
1976	7	0	4	1	2
1977	1	0	0	0	1
1978	4	1	3	0	0
1979	0	0	0	0	
1980	8	5	3	0	
1981	14	12	2	0	
1982	9	6	3	0	
1983	13	8	2	1	2
1984	12	7	1	2	
1985	9	5	4	0	
1986	11	10	1	0	
Total	88	54	23	4	7

Source: "A Study on the Establishment of An Oil Pollution Fund in China". Beijing: Research Institute of Water Transportation, MOC. 1988. Table 3.

Figure 8 Frequency of Oil Spills in China



Source: Compiled from RIWT, 1988. Table 3.

Table 11

Significant Oil Spills in China, 1976-1986

Date	Vessel	Flag	Spill (ton)	Place	Compensation ('000rmb)
760216	Nanyang*	Somalia	8000	Shantou Guangdong	7920
760217	Biyangwan*	Japan	200	Haifeng Guangdong	800
760623	Honghu	China	330	Weihai	
770531	Ocean Harvest*	Liberia	350	Nanao Island	2000
780426	Daqing 412	China	655	Shanghai	
780708	Daqing 401	China	179	Shanghai	
790619	President Silas*	Brazil	355	Qingdao	1000
831011	Daqing 236	China	750	Jieshi Gulf Guangdong	
831125	Feoso Ambassador	Panama	3343	Qingdao	17750
840405	Licheng*	Panama	685	Henglan Island Guangdong	
840511	Haili*	Panama	400	Wenzhou	940
840928	Jacui	Brazil	757	Qingdao	5250
Total	12		16004		35660

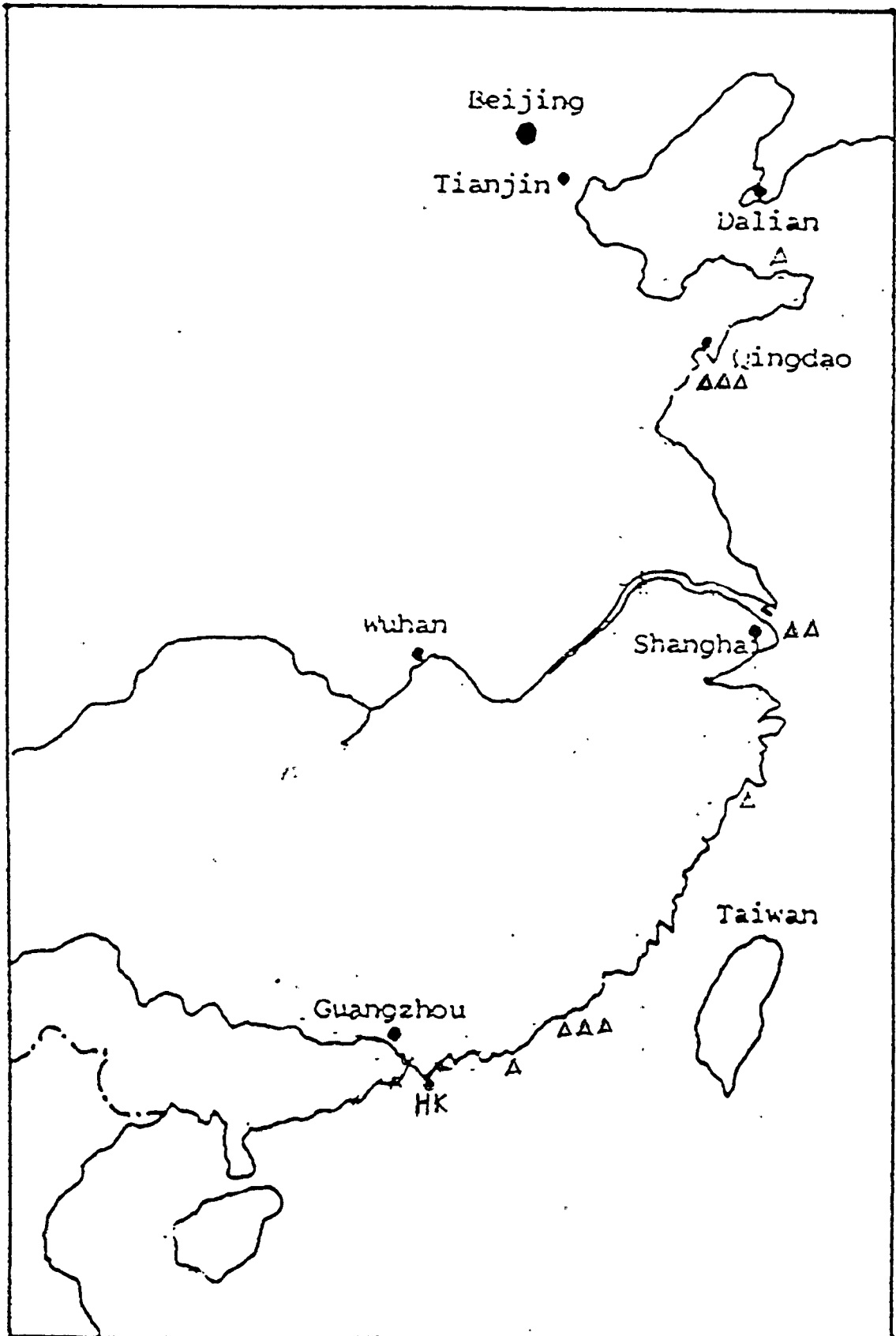
* Translation name from Chinese version.

Source: Research Institute of Water Transport. op. cit., Table 4.

4.2.3.3 Claims for Compensation

Among the total compensation of 37.5 million RMB, 35.7 Million (95%) was claimed against the 12 largest oil spills. This shows the significance of the damage from 12 out of the total 386 incidents. This 3% of total pollution occurrences also tells us that major pollution accidents should be taken greater concern of.

Figure 9 Location of Significant Spills in China



△ Location

The largest claim for compensation in China was against the Feoso Ambassador, a Panamanian tanker, owned at the time of incident by the Hongkong based Feoso Oil Ltd. On November 25, 1983, this 45,406 tons dwt tanker was carrying 43,934 tons of Shengli crude oil from Qingdao to the Philippines, where the owner of the cargo, Philippine National Oil Company located. Soon after the pilot left the tanker, she went aground on Zhongsha Reef, off the Port of Qingdao, resulting in 3,343 tons of oil leaking out. Despite the deployment of skimmers and booms and successful salvage of the tanker, the 6 - 8 scale north wind in the following day drove most of the oil onto the coast. Soon, 230 km of shoreline in the Jiaozhou Bay was polluted, among which 4.7 km was heavily polluted, covering 147,000 M². The oil layer on the beach amounted to as much as 40 cm.¹

The Feoso Ambassador is considered as the Torrey Canyon in China. Qingdao is the most beautiful summer resort in Northern China. It is also an important fishing, light industry city. The oil spill has brought great damages to the city and resulted in catastrophic losses and damages to the coastal factories, military installations, tourism, fishing and aquaculture etc.

A claim was lodged against the shipowner totalling RMB 28.3 million (then about us \$ 14 M), RMB 11 M for cleanup and RMB 17.3 for loss or damage to aquaculture.² The claim was then

¹ Lao, Hui, "The Case of the Feoso Ambassador Being Finalized", Ocean Transportation. No. 3, 1986. P14.
Jiang, Yi, "The Feoso Ambassador Case", Ocean Transportation. No. 6, 1989. pp 30 - 34.

² Claim for Cost Spent on Cleanup of Oil Pollution Caused by the Feoso Ambassador, from the Environment Protection Bureau of Qingdao, China to the Steamship Mutual Underwriting Association Ltd. Aug. 10, 1984.
Claim Against Oil Pollution Damages to Aquatic Products Caused by the Feoso Ambassador, from the Fisheries Bureau of Qingdao, China to the Steamship Mutual Underwriting Association Ltd. Aug. 2, 1984.

mediated to RMB 17.75 M in 1985, among which RMB 11,296,569 exceeded the CLC 69 limit and was paid by Cristal Ltd.

This is the first time when the claim is higher than the CLC limit. This point and the fact of catastrophic damage shocked the whole country and as a fallout, considerations of national contingency plan, oil pollution legislation, especially the study on the necessity to join IOPC FUND has been put on the agenda.

Ill-fated was Qingdao, only 10 months after the disaster of Feoso Ambassador, there came another accident. The Brazilian tanker, Jacui, grounded on the damned Zhongsha Reef again on September 28, 1984, spilling 758 tons of crude oil. However, the damage claim did not exceed the CLC limit and the compensation for the loss or damage was RMB 5.25 M.

4.3 Pollution Legislation in China

4.3.1 Introduction to Legislative System

China began to manage its industries and all other activities by law rather than central planning and administrative orders in the late 70s, when the full scale economic reform took its step in China.

With the introduction of private enterprises, "getihu" as is called in Chinese, the previous centralized system, which has been adapted or the state-owned and collective enterprises, could no longer be suitable for the promotion and control of its industries. This is particular true, when "open door" policy was adopted, attracting more and more foreign

investment in China.

Like in any other countries, there are national laws and local laws. For the purpose of this work, it is only the national level legislative that are concerned and discussed. These nation wide law can be categorized according to the legislative bodies into 3 levels:

Congressional laws;
State Council laws; and
Ministerial regulations.

4.3.2 Congressional Laws

The National People's Congress (NPC) Assembly is the supreme legislative body in China. Through its various committees, it takes up the most important legal issues and sets fundamental laws in the highest level. Congressional laws take their forms and will be effective after the signing of the Chairman of the Standing Committee of the NPC. Other inferior laws and regulations are established according to the congressional parent laws.

At present, oil pollution and related laws adopted by NPC are:

Environmental Protection Law of PRC, 1979
Marine Environmental Protection Law of PRC, 1982
Maritime Traffic Safety Law, 1983

Those under development are:

Territorial Waters and Contiguous Zone Law
Exclusive Economic Zone Law
Oil Exploitation Law

Maritime Law
Harbor Law etc.¹

4.3.3 State Council Laws and Regulations

The State Council is the central government in China. It comprises of a Prime Minister, 3 vice premiers, several state councilors and all ministers. Major legal issues or matters which involve inter-ministerial cooperation are usually referred to the State Council. These instruments, after the approval and signature of either the Prime Minister, or a vice premier or a state councillor, will come into being. Regarding marine oil pollution, there are several legal instruments in force:

Regulations Concerning the Prevention of Pollution of Sea Areas by Vessels, 1983

Regulations Concerning the Environmental Protection in Offshore Oil Exploration & Exploitation, 1983

Regulations Concerning the Dumping of Wastes at Sea, 1985

Regulations Governing supervision and Control of Foreign Vessels by PRC, 1979

4.3.4 Ministerial Regulations

Under the state Council, there are mainly 3 ministries concerned with marine oil pollution:

Ministry of Urban and Rural Construction and Environment,
Ministry of Communications,
Ministry of Agriculture and fishery and one agency -
State Oceanic Administration.

¹ For more information, please refer to Fan, Zhijie and Cote, R.P. "Coastal Zone of PR China", Marine Policy, July 1990. pp 309 - 312.

The regulations promulgated by these ministries are developed upon the delegated responsibilities from the State Council. They are of detailed nature and are applied nationally.

Since environmental problems are now on the priority list and normally considered at State Council level, there are not many regulations at ministerial level. Some of them are:

Information Management Rules of Offshore Oil Resources
Seawater Quality Criteria
Regulation of Investigation and Treatment of Marine
Accidents etc

4.3.5 Administrative Orders and Directives

There are many directives or administrative orders issued by Ministries or departments thereunder to fully implement the laws in a detailed and more practicable manner.

4.3.6 International Conventions in China

4.3.6.1 General

With a merchant fleet of 13,513,578 grt, China stands no. 7 in the world.¹ Since late 70s, China has been active in the maritime world. Not only China's participation is significant to the international maritime community, but also it is recognized by China that the international uniformity is a natural requirement for international maritime law.²

¹ Lloyd's Register of Shipping Statistical Tables 1989. pp3, 30.

² Zhang, Lixing, "Shipping Law and Practice in China", Tulane Maritime Law Journal. Vol. 14, 1990. p 237.

Being a council member of IMO, China has been actively participating all IMO occasions, from Assembly, Council sessions, to Committee, subcommittee and working group sessions. In the meantime, China ratifies or accedes to many international conventions. China is now party to 74 IMO conventions, among which 3 are concerned with oil pollution by ships.

4.3.6.2 Ratification Procedure

The Dept. of Foreign Affairs (DOFA) under the Ministry of Communications is the coordinating agency in China. Convention ratification is channeled through it.

Before any decision is made on whether to join a convention or not, DOFA circulates the text of the convention with explanation on its developments to all organizations concerned in China. Feedback is passed back to DOFA. Then, a feasibility study meeting, including technical and legal experts, will be held. If it is felt desirable to participate in the convention, a report with detailed proposals will be drafted and sent to the Minister for approval. Then the proposal will be further circulated to other ministries concerned for their comments.

In the next phase, it will be presented to the State Council. Normally the consent of the State Council is the final stage in the ratification process in China. And an instrument of ratification signed by the Foreign Minister or upon delegation by the Communications Minister will be communicated to the IMO S-G, usually through the Chinese representative in London.

However, if the convention is deemed very important, such as the organization convention of a UN agency, it has to go

through the Standing Committee of the NPC for examination and approval.

4.3.6.3 Implementation Practice

Preparation for the implementation of the convention begins the same time when the ratification issue is put on the agenda.

A. In most cases, a notice bearing the title of MOC or the designated departments, such as Harbor Superintendency administration, DOFA and Dept. of Transport Administration, is circulated to all relevant units in the country before the convention enters into force for China. the notice contains no material provisions but requiring all parties concerned fully in compliance with the convention.

B. In less frequent case, in addition to the above-mentioned notice, a national law or ministerial regulation is promulgated to bring the essence of the convention into operation when MOC deems it necessary. For example, Art. 28 of the Marine Environmental Protection Law (MEPL) provides that "Any oil tanker of 150 tons gross tonnage and above or any other vessel of 400 tons gross tonnage and above shall carry on board an Oil Record Book". This is borrowed from Reg. 20 of Marpol 73/78.

The Regulations Concerning the Prevention of Pollution of Sea Areas by Vessels, by applying Art. 13, requires that "vessels engaged in international trade with a bulk oil carrying of 2,000 tons shall, besides observing those regulations, be bound by the provision of the International Convention on Civil Liability for Oil Pollution Damage, 1969."

In both cases, there will be detailed directives. They give interpretation to the laws and conventions. However, formation of such a practice towards international conventions in China, is still in a primary stage, since legislation in various realms are urged to be done. The workload will be too heavy and thus it is impossible if each convention is to have its equivalent law in China. Drafting a new law takes too long time. And there is a language problem, translation from English to Chinese in written form would take months time. It is equally difficult to translate national law into English version which exactly reflect the original meaning. Taken MEPL for instance, 8 years after its passage, what is available is just an "unofficial translation"!

4.4 Organizations Concerned with Vessel-Oriented Oil Pollution

4.4.1 Delegation by Law

Art. 5 of the MEPL stipulates that:

"The environmental protection department under the State Council is in charge of marine environmental protection in the whole country.

The state administrative department of marine affairs is responsible for organizing investigations, monitoring and surveillance of the marine environment, and for conduction scientific research therein, and it is in charge of environmental protection against marine pollution damage caused by offshore oil exploration and exploitation and by the dumping of wastes into the sea.

The Harbor Superintendency Administration of the People's

Republic of China is responsible for overseeing, investigating and dealing with the discharge of pollutants from vessels and for keeping under surveillance the waters of the port areas, and it is in charge of environmental protection against pollution damage caused by vessels.

The state agency in charge of fishery administration and fishing and fishing harbor superintendence is responsible for supervising the discharge of wastes by vessels in the fishing harbors and for keeping under surveillance the waters thereof.

The environmental protection department of the armed forces is responsible for supervising the discharge of wastes by naval vessels and keeping under surveillance the waters of the naval ports.

The environmental protection departments of the coastal provinces, autonomous regions, and municipalities directly under the Central Government are responsible for organizing, coordinating, overseeing and checking marine environmental protection in their respective administrative areas, and are in charge of environmental protection against pollution damage caused by coastal construction projects and land-based pollutants."

This clearly shows that the Ministry of Urban and Rural Construction and Environment is the overall national authority in charge of marine environment protection. While HSA under the Ministry of Communications is responsible for commercial port pollution and pollution from ships.

4.4.2 Major Relevant Organizations and their Functions

1. HSA

HSA exercises authority over, among other things, vessel-oriented pollution and maritime traffic safety.¹ It stipulates detailed rules concerning the pollution control in waters under Chinese jurisdiction, coordinates clean-up operation, investigates the casualty and punishes the violators.

HSA has a well-established network over China. With its headquarters in Beijing, it has 5 bureaus in Dalian, Tianjin, Qingdao, Shanghai and Guangzhou, each in charge of several sub-bureaus and many stations along the coast. There are also local HSAs in most of the provinces, autonomous regions and direct municipalities. Thus in fact there are HSA offices in every Chinese port, whether sea or river port.²

With a large team of qualified surveyors and anti-pollution resources, HSA has been actively and effectively working on the prevention of marine pollution.

2. ZC (China Classification Society)

ZC conducts, i. a., mandatory and classification surveys, surveys for notarial matters in case of pollution incident, type approves anti-pollution equipments etc. Technical provisions of international conventions ratified by China are incorporated into ZC rules and regulations.

3. Dept. of Foreign Affairs (DOFA)

Among the other things, DOFA organizes delegations to IMO, UNCTAD and other organizations, coordinates the study and

¹ Art 3 , Maritime Traffic Safety Law, 1983.

² Prof. B.K. Fu listed some 42 major HSAs in his "Combating Oil Pollution in China". 1989 Oil Spill Conference. Texas, USA. p 198.

ratification of international conventions, and supervises convention enforcement in China.

4. Research Institute of Water Transport (RIWT)

RIWT is a major research institute under MOC. It carries out research, i. a., on national oil pollution contingency plan and oil compensation fund in China. It also has expertise and equipment on oil spill identification, the result of which may be used as evidence on court.

5. State Oceanic Administration (SOA)

SOA conducts, i. a., scientific research of the marine environment, monitors oil pollution within Chinese coastal waters. Since it is provided with aircrafts and remote sensing equipments, SOA also helps in monitoring ship-oriented pollution. There is a research center under SOA, which offers full range of oil identifying service.

6. Maritime Courts

Art. 45 of Maritime Traffic Safety Law provides that "should the parties concerned reject the penalties as determined by the competent authorities such as imposition of fine or withdrawal of certificate of competency, they may bring an action in the People's Court"

Usually it is a maritime court that the suit is lodged with. There are presently 5 coastal maritime courts: Dalian, Tianjin, Qingdao, Shanghai and Guangzhou.

7. China Maritime Arbitration Commission (CMAC)

Another way to solve civil disputes is through the arbitration. CMAC is the sole organization entrusted with the responsibility for arbitration. CMAC was established on 21 Nov. 1958 and in 1988 it was changed to the current name.

Table 12 Relevant Organizations in China

Org. \ place		before spill	oil slick	on scene	after spill
MOC	HSA	routine control maintaining manning & combating equipment certification training policy-making	monitoring by onshore facilities & vessels	command investiga- tion dispersant control mobiliza- tion	case disposition punishment dispute mediation enforcement of court decision casualty analysis
	ZC	delegated mandatory survey classification survey			technical survey consultation
	DOFA	IMO coordination information seminars		consulta- tion	casualty report
	RIWT	transport research	identifi- cation	consulta- tion	casualty report
SOA		marine scientific research	air-monitor identifi- cation		
maritime court					dispute settling
CMAC		consultation			arbitration (civil)

5 CHAPTER V TOWARDS A UNIVERSAL SOLUTION FOR CHINA: JOINING FUND

5.1 The Importance of the Issue

China has a vast coastal zone area which is fragile to marine pollution. It is calculated¹ that the coastal zone represents 5% of the total area of China, while the population there is 17% of the whole nation. This populated area also is dense with key industries, having more than 40,000 factories, of which many are vulnerable once pollution occurs.

5.1.1 Fishery and Aquaculture

Along the Chinese coastline, there is fish farming and aquaculture almost everywhere. The largest fishing base, Zhoushan, is near Shanghai.

According to FAO statistics,² fish catch by China in 1987 reached 9.3 million tons, 10% of the world's total. China's aquaculture is even more dominating in the world. In 1985, it produced 5.2 million tons, 48% of the world's total.³ It is clear that if oil spills around the coastline, substantial loss in fishing industry would result.

In the Feoso Ambassador case, the claim for oil pollution damage to aquatic products and fishing amounted to RMB 17.3 million, representing 61% of the total claim. (See Table 13)

1 Fan, Zhijie & Cote, R.P., Coastal Zone of PR China, Marine Policy, July 1990, p 305.

2 FAO Fisheries Statistics, Vol 65, 1987.

3 Liao, I-Chiu, Status and Prospects for Aquaculture in Asia. The Congress Proceedings of the Aquaculture International Congress & Exposition, Vancouver, Sept. 6-9, 1988, p 16.

Table 13

Compensation of Feoso Ambassador Claim

Item	RMB	%
Aquatic	17,263,607.50	61
Cleanup	7,122,696.02	25
Shipyard	269,739.00	1
Fishing	60,000.00	
Army	926,014.00	3
Monitoring cost	330,052.64	1
Tourism	1,936,171.80	7
Administration	432,813.40	2
Total	28,341,094.36	100

Sources:

Claim Against Oil Pollution Damages to Aquatic Products Caused by M/T Feoso Ambassador. Fisheries Bureau of Qingdao, China, 1984. pp 1-5.

Claim for Cost on Clean-up of Oil Pollution Caused by Feoso Ambassador. Environmental Protection Bureau of Qingdao, 1984. p 1.

5.1.2 Tourism & Related Services

With the open-door policy adopted in China more than 10 years ago, more and more foreign visitors have come to visit China. In 1984, PRC received 12.85 million tourists from 162 countries and regions, a 35.6% increase on the previous year.¹ Foreign visitors reached a peak of 4.3 million in 1988. Income from tourism and related services such as hoteliers and restaurants is significant for the national income, especially for foreign currency earnings. From 1978 to 1987, foreign currency generated by the tourism industry amounted to US\$ 11 billion. In 1988 alone, US\$ 2.2 billion was brought by tourism. China's foreign income in this area ranked

¹ PRC Yearbook 85. Beijing: Xinhua Publishing House, 1985. p 474.

20 in the world compared with 41 in 1978. These earnings account for 33.6% of the national intangible foreign income.

Along the coast, there are many cities open to international tourism. As in 84, there were about 60 open cities open.¹ All are popular places for foreigners as well for domestic travellers.

Pollution is one of the major enemies of tourism. Once oil pollution occurs, it may soon leads to damage to nearby scenic places and will affect the tourist industry in the long term. In 1984, the spilled oil from Feoso ambassador contaminated No.1 , No.2, No.3, No.6 bathing beaches, Zhanqiao Park, Luxun Park, Badaguan Beach and Old Man Stone Beach etc, causing extensive damage to these places.² After learning of the incident, a great number of tourists, both foreign and domestic, postponed or canceled their trips to Qingdao, resulting in 50% loss of expected income. The claim for this reached RMB 1.9 million, 7% of the total claim. Table 13 shows that the loss of or damage to tourism was the third largest item.

5.1.3 Military Facilities

Oil spills may also bring much damage to naval bases and other military facilities. Let's again take the Feoso Ambassador for example, the Tuandao Army Unit, situated in a heavily polluted area, which was severely affected by the spill resulting in 0.9 million RMB loss and damage, 3% of the total.

1 Ibid. pp 474-475.

2 Claim for Cost on Clean-up of Oil Pollution Caused by Feoso Ambassador, Environmental Protection Bureau of Qingdao, 1984. p 1.

From the military point of view, it is not just a matter of loss of money, but the availability of military operations.

5.1.4 Inhabitants and other Industries

Oil pollution will also affect the local inhabitants, shipyards, factories etc to a great extent.

5.1.5 Urgency

Elimination, or rather, prevention of pollution, is certainly ideal. However, as analyzed in 1.2.1, damage to the environment could not be wiped out. Adequate compensation for the suffered is important and urgent.

Figure 10 shows that only 88 out of 386 were compensated while the remaining 77% were not compensated at all. Table 11 illustrates that 5 out of 12 big spills, representing 42%, were not compensated. Damage of RMB 7 million, then about US\$ 3.5, could be roughly figured out.¹

The risk of oil pollution is high. Table 8 shows a total of 386 cases from 1976 to 1986, averaging 35 spills per year. Among these 386, 12 were spills of more than 100 tons of oil, with a mean of once a year.

With the fast development of the domestic oil industry, busy oil transportation, and increasing tankers passing by to Japan and the Korean Peninsula, the risk for significant spills will be higher.

¹ The average compensation rate per ton oil spilled for the 7 compensated spills is RMB 2,660/t. Therefore, the five incidents, which spilled all together 2597 tons, amounts roughly to $2597 \times 2660 = \text{RMB } 7 \text{ M.}$

Lack of compensation or inadequate compensation not only has led to material loss and spiritual sufferings by the victims, but also impedes the effective combat of oil pollution, which is contrary to the environmental protection policy.

To participate in a wider compensation coverage is essential and imminent.

5.2 Feasibility

5.2.1 Consideration of CRISTAL

Although oil companies are so widely defined as to include "any public body" that is "engaged in the production, refining, marketing, storing, trading or terminating of oil" or "receives oil in bulk for its own consumption or use",¹ there are no parties from PR China and USSR.² The following points account for this:

1. These state owned oil companies are unaware or unwilling to join the contract;
2. No pressure or administrative organs to urge their participation;
3. Only about 20%³ of the Chinese tanker fleet is party to TOVALOP, while the remaining are mainly for domestic transport and will be unlikely to enter TOVALOP in the future. In this case, even if the oil companies joined CRISTAL, CRISTAL would still not be applicable for spills

¹ Memorandum of Explanation of the CRISTAL. Feb. 20, 1989.

² Meeting with Mr. McCormack, Chief Executive of Cristal Services Ltd, London. March 29, 1990.

³ They are mainly COSCO owned tankers, which join TOVALOP through UK P & I Club.

- involving non-TOVALOP tankers, or for spills the damage of which does not exceed the TOVALOP Supplement limit. Thus the objective to protect the victims would not materialize;
- 4. This voluntary agreement will expire in 1992;
- 5. Disputes under CRISTAL will have to be settled in the UK, not the place where pollution occurs, which is inconvenient for the claimants.

Therefore, CRISTAL is not the ideal one for China, while a statutory convention, participated through the channel of a sovereign state, is preferred.

5.2.2 Consideration of FUND 84

FUND 84 provides a flat oil pollution liability of 200 million SDRs, wide enough to cover all the present spills in the world except the Exxon Valdez, probably.

But FUND 84 has not entered into force and whether it will or not has to be waited for, so it doesn't help present compensation even if China joins it.

There are also other factors that should be considered. The biggest spill up to now in China has been the Feoso Ambassador, which spilled off Qingdao, the most beautiful coastal city and probably the most expensive area in China. The amount of compensation was RMB 17.75 million, roughly SDR 7.3 million at that time. This is only 16% of the FUND 71 basic limit. Damage that exceeds SDR 45 M, the FUND 71 limit, in China is not likely to occur in 10 years time, taking into account the low living standard there.

For practical purposes, FUND 71 is presently adequate for

China. However, the process of FUND 84 must be closely watched since if FUND 84 enters into force, several major FUND 71 contributors will denounce FUND 71. Thus, even if FUND 71 is not to terminate at once, the contribution share from the remaining party will rise sharply. FUND 71 may be incapacitated to compensate in case of disaster among the remaining countries. That will be the time when China has to decide whether to denounce FUND 71 if it is a party, or to join FUND 84, or to join CLC 84, or just to rely on municipal law.

5.2.3 Joining FUND 71

As seen above, FUND 71 is the existing regime which would cover the worst spill in China. By joining FUND 71, spills in China which exceed the CLC limit will be immediately covered by it. FUND 71 has advantages over other regimes in the case of China:

1. By entering into a statutory convention, shipping, as well as the oil cargo sector are obliged to contribute to oil pollution damage, which better reflects the burden sharing principle;
2. FUND 71 protects the whole country while CRISTAL only protects private interests;
3. FUND 71 also indemnifies the shipowner, which is a relief for the downward shipping business;
4. IOPCF 71 has a reputation of fast compensation. It takes only one or two years to settle almost all the claims. Even in the slowest case of Tanio, IOPCF still managed to work it out in 4 years time;¹
5. Its 45 M SDR is adequate for spills in Chinese waters,

¹ Abbeccassis, *op cit.* p 266.

while FUND 84 limit is too high;

6. Disputes under FUND 71 are settled in municipal court;

7. More participation at the international stage.

5.3 Cost Benefit Analysis

5.3.1 Cost

As required by FUND 71, any person who receives more than 150,000 metric tons of contributing oil in a contracting state in the relevant calendar year must contribute to IOPCF 71. Such contributions are divided into annual and initial contributions.

5.3.1.1 Annual Contributions

Annual contributions are levied to meet the anticipated payments of compensation and indemnification by the IOPCF and the administrative expenses of the FUND during the coming year.

Annual contributions are further divided into the General Fund and Major Claims Fund. They are so calculated:

$$GF_n = TGF_n * CO_{n-1} / TCO_{n-1}$$

$$MCF_m = TMCF_n * CO_{n-1} / TCO_{n-1}$$

where: GF_n means General Fund levied on one contributor in n year;
 TGF_n means Total Fund levied on all contributors in n year;
 CO_{n-1} means Contributing Oil by one contributor in n-1 year;

TCO_{n-1} means Total Contributing Oil by all contributors in $n-1$ year;

MCF_m means Major Claims Fund levied on one contributor in m year;

MCF_m means Total Major Claims Fund levied on all contributors in m year;

$M > n$.

TGF_n / TCO_{n-1} and $TMCF_n / TCO_{n-1}$ is given each year by the annual Assembly.

In 1986, the contributing oil calculated according to FUND 71 in China was 19.4 million tons, among which 17.86 M tons was crude oil.¹ In their calculation, RIWT included 61,800 tons of lubricating oil as contributing oil, which I think the contrary. Contributing oil, for easy of administration, just includes crude oil or heavy fuel oil,² while for compensation FUND 71 covers all persistent oil incidents. Lubricating oil is not a kind of fuel oil. Nevertheless, as 61,800 tons of lubricating is only 0.3% of the total oil, figures given by RIWT are still good for use in having a draft picture of China's contributing oil.

Table 14 shows China's contribution position in FUND 71. If China joins FUND 71, it will pay about £90,000 every year. Since total levy changes each year, with an increasing tendency during the last several years, there may be a slight increase for China's contribution per year.

Table 15 indicates the present contribution shares for member countries in the calendar year of 1988. If China is to join, it will be ranked 10th, just after the USSR, with a share of

¹ RIWT, op cit. pp 26-30.

² Definition in Art. 3 (1) of FUND 71.

2.28%.

5.3.1.2 Initial Contribution

Initial contributions are payable when a state becomes a member of the IOPCF 71 on the basis of a fixed amount per ton of contributing oil received the year preceding that in which the FUND Convention enters into force for that state. This amount was fixed by the Assembly at 0.04718 francs per ton (0.003145 SDR, which at 29 Dec. 1989 corresponded to £0.002640).¹

A formula could be used to describe the calculation:

$$IC_n = CO_{n-1} * 0.04718 \text{ (francs)}$$

where: IC_n means Initial Contributions from one state when FUND 71 becomes effective for it in n year.

So, the initial contribution for China at present is estimated as :

$$20,000,000 * 0.04718 = 943600 \text{ Fs} = \text{£}51280$$

5.3.1.3 Total Contribution

China would have contributed:

$$999857 + 51280 = \text{£}1,051,137$$

over 1979 - 1989, or £95,558 per year on an average.

¹ IOPCF Annual Report 1989. p 14.

Table 14

Contributing Oil in China and the Levy

Year	IOPC Oil '000tons	Total Levy £'000	China Oil '000tons	China Levy £
1979	887000	750	16580	14019
1980	947740	10000	17160	181062
1981	878740	500	16370	9314
1982	833730	860	16600	17123
1983	838180	24106	16730	481153
1984	792440	0	16690	34251
1985	819380	1500	18710	0
1986	770560	1800	19400	45318
1987	787867	1200	20000*	30462
1988	795254	2990	20000*	75196
1989	857458	4800	20000*	111959
Total	9208349	48506	198240	999857
Average/t		£0.0052676		£0.0050437
Average/year		4410		90896

Source: RIWT, op cit. Table 10.
IOPC Annual Report 88, 89.

* Supposed figures.

Note: This is only a rough picture showing the relationship between total levy and contributing oil. For accurate calculations, consult IOPCF Secretariat.

Table 15

Contributing Oil Received in the Territories of
Member States in the Calendar Year 1988
As reported at 1989.12.31

Member State	Contribution Oil (tons)	%
Japan	229,867,256	26.80
Italy	21,928,308	14.22
France	98,918,228	11.54
Netherlands	85,891,659	10.02
UK	78,431,051	9.15
Spain	52,835,150	6.16
Canada	30,173,643	3.52
FRG	23,907,309	2.79
USSR	20,175,600	2.35

China*	20,000,000*	2.28*
Greece	17,135,850	2.00
Sweden	16,367,118	1.91
Norway	15,088,913	1.76
Finland	11,641,300	1.36
Portugal	10,520,555	1.23
Yugoslavia	8,740,778	1.02
Indonesia	8,697,786	1.01
Denmark	8,599,532	1.00
Bahamas	5,658,586	0.66
Cote d'Ivoire	3,104,141	0.36
Tunisia	2,913,701	0.34
Sri Lanka	1,848,063	0.22
Cameroon	1,487,396	0.17
Poland	1,454,526	0.16
Ghana	836,638	0.10
Syrian Arab Rep	477,084	0.06
Algeria	499,000	0.06
Papua New Guinea	259,253	0.03
Fiji	0	0
Iceland	0	0
Kuwait	0	0
Liberia	0	0
Maldives	0	0
Monaco	0	0
Oman	0	0
Seychelles	0	0
Tuvalu	0	0
Benin**		
Cyprus**		
Gabon**		
Nigeria**		
Qatar**		
UAE**		
Vanuatu**		
=====		
	857,458,424	100.00

* If China joins

** No report

Source: IOPCF Annual Report, 1989. Annex VI.

5.3.2 State Responsibility

5.3.1 shows the responsibility for China's industry in pecuniary terms. Although contracting states bear no financial

responsibility and FUND 71 purposely put little responsibility, if at all, on the states in order to facilitate their participation, it is necessary to examine the major role a state undertakes after its accession.

First, the state should establish relevant laws or regulations to put FUND 71 into force;

Second, each year the contracting state shall communicate to the Director of IOPCF the name and address of any person liable to contribute as well as the amount of contribution oil they receive;¹

Third, a state may choose to assume the obligation to contribute in respect of any person. In so doing, the state shall declare in writing and specify which obligations are assumed;²

Fourth, the contracting state shall ensure that its contribution fulfill their obligations to contribute under FUND 71;

Fifth, each contraction state shall ensure that its courts possess the necessary jurisdiction to entertain any actions against the IOPCF thereunder, so the state shall have competent professionals on FUND 71;

Theses are mainly administrative matters, and since China has been a CLC party for 10 years, there is not much problem for the Chinese government to fulfil its obligations. The contribution to IOPCF will almost surely be channelled through

¹ Art. 15. FUND 71.

² Art. 14. FUND 71.

the administration.

What is left to do is perhaps to perfect its liability and compensation regulations and to establish an appropriate management.

5.3.3 Benefits

In the Feoso Ambassador case, as Panama, ship's flag state, and China are both CLC parties, shipowner liability was limited to CLC 69 limit. Feoso Ambassador's limitation ton = 15,572.26 net ton + 7,674.04 engine room = 23,246.3 tons. Its limitation = 133 SDR * 23,246.3 = SDR 3,091,757.9 = US\$ 3,201,577.14 = RMB 6,453,433.

A RMB 28.3 M claim was lodged and finally RMB 17.75 was agreed upon. Since the tanker owner was a party to TOVALOP and oil cargo was owned by the Philippine National Oil Co., a Cristal member, the exceeding part, RMB 11,296,567 (£3.5 M) was paid by CRISTAL Ltd.

Since TOVALOP and CRISTAL are tanker and cargo oriented regimes, they do not guarantee 100% compensation for spills in a certain area. TOVALOP and CRISTAL have a member coverage of 98% and 80% respectively, so, theoretically there is a 98% * 80% = 22% possibility for tanker pollution which is not covered by CRISTAL.

But in China, the national fleet of 192 tankers with 2.7 M tons dwt dominates oil transport, and when oil is transferred domestically, no oil cargo is owned by a CRISTAL owner. The 4 significant spills unpaid out of the total of 10 from 1976 - 1986 were not covered by CRISTAL in any way. To protect the integrity of the marine environment, an area-oriented regime

is preferred.

As 5.3.1 indicated, had China joined FUND 71, an exposure of £3.5 M and 4 suspending large spills would have been covered by paying only £1 million, and by contributing £95,558 per year (see 5.3.1.3) from now on, the potential risk of pollution will be covered.

FUND also relieves part of the shipowner's liability, constituting 25% of the total liability.

Other benefits:

1. International participation shows the willingness of PRC towards universal solutions through international cooperation;
2. Joining FUND will accelerate the relevant legislation in China;
3. Encouraging both victims and the polluter to take an active part against the oil spill;
4. To restore and protect the environment;
5. To safeguard the loss of fishing, aquaculture, tourism, hoteliers and restaurants etc;
6. To safeguard the attraction of foreign investment in coastal areas;
7. To expedite the compensation process and save legal expenses; and
8. To raise the image of the shipping and oil industries.

5.4 Proposed Management

To facilitate compensation in China after joining FUND 71, there needs to be set up an administrative body. A Council comprising members from the following is preferred:

Ministry of Communications;
Ministry of Urban & Rural Construction & Environment;
Ministry of Agriculture;
Ministry of Energy.

6 Ch VI Conclusion

The increasing tendency of marine pollution is threatening modern society. It is realized that the protection of marine environment has to be sought at a global level, and the global pollution liability regimes, CLC, FUND, TOVALOP and CRISTAL, have been actively working on liability and compensation issues.

TOVALOP and CRISTAL are voluntary and temporary in nature, while CLC and FUND are statutory. To safeguard a country's interests, it is advisable to join statutory conventions, and these conventions are the only way towards a universal solution.

The fate of the CLC 84, FUND 84, depends greatly on the US attitude. Although there are lots of advantages for the US, joining or not is still under debate in Congress. If the US is to ratify them, CLC 84 and FUND 84 may come into force around 1994. Even if the US refuses to join, the tendency towards a universal solution is definite and some new conventions, more suitable to all the countries in the world, will have to be drafted.

For China at present, it is proposed to ratify FUND 71, which will be enough to cover all China's current claims.

By joining FUND 71, China has to contribute roughly £95,558 per year on an average term. It then of benefit in covering the risk of a case like Feoso Ambassador, which had a claim of £3.5 million. FUND is of further advantage for China in accelerating the development of its relevant legislation; by better encouraging victims and polluters to combat spills;

safeguarding fishing, aquaculture and tourism; quickening the compensation process; saving legal expenses and raising its international reputation.

To join FUND 71, China also needs to perfect its present laws and regulations, aiming at filling in the gap left by CLC 69 and FUND 71.

To administer FUND matters in China, it is advisable to establish a Council of Oil Pollution Fund in China, which will be composed of members from relevant ministries and oil and shipping companies. The Secretariat to the Council will handle day to day matters arising thereunder.

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ANNEX I

STATUS of CLC, FUND & LLMC BY COUNTRY

90.01.31

COUNTRY	CLC				FUND				LLMC
	69	76	84	84*	71	76	84	84*	
Algeria	x				x				
Australia	x	x	x						
Bahamas	x	x			x	x			x
Belgium	x	x							
Benin	x				x				x
Brazil	x								
Cameroon	x	x			x				
Canada	x	x			x				
Chile	x								
China	x	x		x					
Cote d'Ivoire	x				x				
Cyprus	x	x			x	x			
Denmark	x	x		x	x	x		x	x
Dominican Rep.	x								
Ecuador	x								
Egypt	x	x							x
Fiji	x				x				
Finland	x	x		x	x	x		x	x
France	x	x	x	x	x	x	x	x	x
Gabon	x				x				
GDR	x								
FRG	x	x	x	x	x	x	x	x	x
Ghana	x				x				
Greece	x	x			x				
Guatemala	x								
Iceland	x				x				
India	x	x							
Indonesia	x				x				
Italy	x	x			x	x			
Japan	x				x				x
Kuwait	x	x			x				
Lebanon	x								
Liberia	x	x			x	x			x
Maldives	x	x			x				
Monaco	x				x				
Morocco	x			x				x	
Netherlands	x	x		x	x	x		x	
New Zealand	x								
Nigeria	x				x				
Norway	x	x		x	x	x		x	x
Oman	x	x			x				
Panama	x								
Papua New Guinea	x				x				
Peru	x	x	x						
Poland	x	x		x	x	x		x	x

(Continued)

COUNTRY	CLC				FUND				LLMC
	69	76	84	84*	71	76	84	84*	
Portugal	x	x		x	x	x		x	
Qatar	x	x	x		x				
Rep. of Korea	x								
St. Vincent & the Grenadines	x				x				
Senegal	x								
Seychelles	x				x				
Singapore	x	x							
South Africa	x		x						
Spain	x	x			x	x			x
Sri Lanka	x				x				
Sweden	x	x		x	x	x		x	x
Switzerland	x	x							x
Syrian Arab Rep.	x				x				
Tunisia	x				x				
Tuvalu	x				x				
USSR	x	x			x	x			
UAE	x	x			x				
UK	x	x		x	x	x		x	x
USA				x				x	
Vanuatu	x	x			x	x			
Yemen	x	x							x
Yugoslavia	x				x				
Total	66	34	6	13	43	17	2	12	16
% World Tonnage	82	58	2.8		57.9	42.1	1.8		37.4

* Signatories.

Date at 1989.1.1.

Sources: 1. MEPC 29/2. Feb. 8, 1990. IMO.

2. Status of Multilateral Conventions & Instruments in respect of which the IMO or its Secretary-General performs depository or other functions, as at 1988.12.31. IMO. p 308.

3. Shipping Statistics Yearbook 1989. Bremen: ISL. pp 11-14.

Annex II

Status of CLC, FUND & LLMC

90.01.31

Numbers	CLC			FUND			LLMC*
	69	76	84	71	76	84	
Entry into force	750619	810408	-	781016	-	-	861201
Signatories	28	4	13	17	3	12	8
Contracting party	66	34	6	43	17	2	16
IMO member	64	34	5	42	17	2	
other	2	-	1	1	-	-	
Entrance requirem	-	-	10	-	-	8	
Non-party IMO member	70	100	129	92	117	132	

Source: MEPC 29/2, February 8, 1990. IMO.

* Status of multilateral conventions & instruments in respect of which the IMO or its Secretary-General performs depositary or other functions, as at 1988.12.31.