LAW ON TRANSBOUNDARY MOVEMENT OF HAZARDOUS SUBSTANCES THROUGH SEA

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By

BINU MOLE. K

Under the Guidance of

Dr. A. M. Varkey
Retired Professor
School of Legal Studies
Cochin University of Science and Technology

SCHOOL OF LEGAL STUDIES

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Declaration

I do hereby declare that the thesis entitled ***"Law on Transboundary Movement of Hazardous Substances through Sea"*** for the award of the degree of Doctor of Philosophy is the record of the original research work carried out by me under the guidance and supervision of Dr. A. M. Varkey, Retired Professor, School of Legal Studies, Cochin University of Science and Technology. I further declare that this work has not previously formed the basis for the award of any degree, diploma, associate-ship, fellowship or any other title or recognition.

Cochin
1/11/2013

Binu Mole. K

School of Legal Studies
Cochin University of Science and Technology
Kochi – 682 022, Kerala, India

Dr. A.M Varkey
Professor (Retd.)

Ph : 04842686040 (Home)
Mob : 9446140150
Email : varkeyarattil@gmail.com

Certificate

This is to certify that the thesis entitled *"**Law on Transboundary Movement of Hazardous Substances through Sea**"* submitted by Binu Mole. K for the award of the degree of Doctor of Philosophy is to the best of my knowledge, a bonafide record of research work carried out by her as part-time research scholar, School of Legal Studies, Cochin University of Science and Technology under my guidance and supervision. This thesis or any part thereof has not been submitted elsewhere for any degree.

Cochin
1/11/2013

Dr. A. M. Varkey
(Supervising Guide)

School of Legal Studies
Cochin University of Science and Technology
Kochi – 682 022, Kerala, India

Dr. A.M Varkey
Professor (Retd.)

Ph : 04842686040 (Home)
Mob : 9446140150
Email : varkeyarattil@gmail.com

Certificate

This is to certify that all the relevant corrections and modifications suggested by the audience during the pre-synopsis seminar and recommended by the Doctoral Committee has been incorporated in the thesis entitled *"**Law on Transboundary Movement of Hazardous Substances through Sea**"* submitted by Binu Mole. K for the award of the degree of Doctor of Philosophy.

Cochin
1/11/2013

Dr. A. M. Varkey
(Supervising Guide)

School of Legal Studies
Cochin University of Science and Technology
Kochi – 682 022, Kerala, India

Certificate

This is to certify that the important research findings included in the thesis *"**Law on Transboundary Movement of Hazardous Substances through Sea**"* has been presented in a research seminar held at the *School of Legal Studies*, Cochin University of Science and Technology on 25/09/2013.

Binu Mole. K
Research Scholar

Counter Signed

Dr. A. M. Varkey
(Supervising Guide)

Kochi-22
1st Nov 2013

Prof. (**Dr.) N.S Soman**
(Director, School of Legal Studies)

Preface

This study pertain to legal control of pollution from transboundary movement of hazardous substances through sea. It is an emerging area in international maritime law. There is growing environmental awareness that oceans are no longer an inexhaustible resource. This has resulted in a complex system of integrated ocean policies and international legal frame work in this regard. Considering the peculiar nature of hazardous substances, the development of law in this regard has been haphazard. The legal framework in this area is not comprehensive and lacks coherence. India is geo-strategically located in the central part of Indian Ocean through which many international sea routes lie. India is also fast emerging as a maritime hub. Indian legal framework in this respect also suffers from serious pitfalls. In this backdrop, this study makes a sincere attempt to identify and analyse the legal intricacies in this area, in order to evolve a better regime for control of pollution pursuant to transboundary movement of hazardous substances through sea.

I wish to first place on record, my profound gratitude to Dr.A.M.Varkey, my supervising guide. Completing this thesis would not have been possible without his guidance and constant support. His insightful comments, benevolence and expert guidance encouraged me to continue the research and explore difficult areas without fear. I am highly indebted to him for the pain he has taken in scrutinizing my work, in spite of his ailments.

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I express my sincere thanks to the Library and Office staff of School of Legal Studies, Cochin University of Science and Technology. I also acknowledge the co-operation extended to me by the staff of Library, Govt. Law College, Thrissur and the High Court of Kerala.

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Cochin,

1/11/2013 **Binu Mole K**

Contents

List of Abbreviations

A.C.	:	Appeal Cases
A.J.I.L.	:	American Journal of International Law
A.I.R.	:	All India Reporter
All.E.R.	:	All England Reporter
All.	:	Allahabad
A.M.C	:	American Maritime Cases
anr.	:	another
Art.	:	Article
Bom.	:	Bombay
B.Y.I.L	:	The British Year Book of International Law
Cal.	:	Calcutta
C.A.	:	Court of Appeal
Cd, Cmd or Cmnd	:	United Kingdom Command Papers
Com. Cas.	:	Company Cases
Col. L.R	:	Columbia Law Review
C.M.I.	:	Comit'e Maritime International
Ch.D.	:	Chancery Division
Cranch	:	Cranch Reports, United States Supreme Court
e.g.	:	Example
dtd.	:	dated
ed.	:	editor
eds.	:	editors
edn.	:	edition
E.C.	:	European Community
.et al	:	and others
etc.	:	etcetera
E.R.	:	English Reports
E.E.C.	:	European Economic Community

F(or Fed).	:	The Federal Reporter (U.S.A)
F. (2d)	:	The Federal Reporter (Second series) (U.S.A)
Georgia.L.R.	:	Georgia Law Reports
H.L.	:	House of Lords
Ibid.	:	In the same place
Id.	:	Idem
I.C.L.Q.	:	International and Comparative Law Quarterly
I.C.J.	:	International Court of Justice
I.C.J Rep.	:	International Court of Justice Reports
I.L.Q.	:	International law Quarterly
I.L.M.	:	International Legal Materials
I.L.R.	:	International Law Reports
IRBLR	:	International Arbitration Law Review
ITLOS	:	International Tribunal of the Law of the Sea
J.	:	Judge
JJ.	:	Judges
Ker.	:	Kerala
K.L.T	:	Kerala Law Times
K.B.	:	Kings Bench
LNTS	:	League of Nations Treaty Series.
L.Q.R.	:	Law Quarterly Review
Lloyd's Rep.	:	Lloyds Reports
MEPC	:	Marine Environment Protection Committee
MoEF	:	Ministry of Environment and Forest
O.D.I.L.	:	Ocean Development and International Law
P.	:	Page
PP.	:	Pages
P.C.	:	Privy Council
Q.B.	:	Queens Bench

QBD	:	Queens Bench Division
r.	:	Rule
s.	:	Section
S.C.	:	Supreme Court
S.C.C.	:	Supreme Court Cases
S.C.R.	:	Supreme Court Reports
SOSREP	:	Secretary of State's Representative
Supp.A.J.	:	Supplement to the American Journal of International Law
T.I.A.S	:	Treaties and Other International Acts Series
Tul.L.Rev.	:	Tulane Law Review
U.K.	:	United Kingdom
U.S.	:	The United States Supreme Court Reports.
U.O.I	:	Union of India
UNCED	:	United Nations Conference on Economic Development
UNCLOS	:	United Nations Convention of Law of the Sea
U.N.T.S	:	United Nations Treaty Series
Vol.	:	Volume
v.	:	Versus
w.e.f.	:	with effect from
www	:	World Wide Web.
W.L.R	:	Weekly Law Reports
Yale J.Int'l.L.	:	Yale Journal of International Law

List of cases

Chapter -1

INTRODUCTION

International trade in hazardous substances has come to occupy a prominent place in today's world. After the first world war, the trend of industrialization that set in had generated an unprecedented demand for substances worldwide. Transport through sea in ships, being the most convenient and economic for bulk carriage, is often resorted to for the carriage of these substances. Most of these substances are hazardous or dangerous from safety point of view and also harmful to the marine environment.[1] The unparalleled expansion of shipping tonnage, coupled with its enhanced seaborne movement has led to increasing risk of pollution of the oceans.[2]

Moreover, today's world trade depends to a larger extent, on transport of hazardous substances. Hazardous substances such as solid and liquid

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1 IMO, "IMO and Dangerous goods at sea", Focus on IMO, the Hague, (May 1996), p.2.

2 Several incidents involving ships carrying oil and other hazardous substances that occurred around the world support this. *The Amoco Cadiz*, *The Torrey Canyon*, 1967, *The Exxon Valdex*, 1989, *The M.V. Brear*, 1993, *The Erika*, 1999, and *The Grand Camp* 1994 are few incidents to mention in this regard. See generally Alan Khee-Jin Tan, *Vessel Source Marine Pollution : The Law and Politics of International Regulation*, Cambridge University Press, New York, (2005), See also Meltem Deniz Guner Obzek, *The Carriage of Dangerous Goods by Sea* , Springer, Turkey, (2007)

chemicals, radioactive materials, Petroleum products of and from oil refineries, account for fulfilling energy on fuel and raw material demands of innumerable industries around the world. Trade involved with hazardous waste partly for disposal and partly in the name of recycling have further expanded the dimension of international trade involving hazardous substances.[3] The recent trend in transboundary movement of ships for condemnation to less developed countries where environmental monitoring of ship recycling is no strict also add to this. This is in addition to carriage of hazardous substances for dumping as licensed under international regulations. The movement of hazardous substances even though is vital for international trade and useful to humanity, its movement through seas always pose danger or threat to marine environment. These substances carried in ships may be spilled in to sea following accidents involving ships carrying them or deliberately from jettisoning to save voyage, during loading, unloading and other terminal operations. The purpose served by movement of hazardous substances through sea outweighs the adverse impact that it can have on marine environment.

The risk, attached with its transport, limitations of national jurisdiction to exercise control over ships plying through its maritime zones and areas beyond its jurisdiction have sought the need for development of laws at

[3] See Katharina Kummer, "The International Regulation of Transboundary Traffic in Hazardous Wastes: The 1989 Basel Convention," 41 *International and Comparative Law Quarterly*, 530(1992), pp. 530-562. See also IMO, "IMO and Dangerous goods at sea", Focus on IMO, the Hague, (May, 1997)

international level. The international community has also responded to this menace of environmental pollution pursuant to transboundary movement of hazardous substances in ships via various international, regional, bilateral and national measures. Still several serious ship based casualties involving hazardous substances are reported and studies shows that, with the increasing seaborne movement of these substances there is increasing risk to the marine environment.

This state of affairs added momentum to this study. The study seeks to critically evaluate the international law and practice for prevention and reduction of pollution of marine environment pursuant to its transboundary movement through sea with special reference to Indian law in a comparative perspective. In this effort, the study attempts to device a legal system comprehensive enough to reduce pollution of marine environment from transboundary movement of hazardous substances. Hence this study tends to promote international trade by facilitating safe transport of hazardous substances and is of great relevance and contemporary importance.

1.1Research Problem

The research problem analyzed in this study is:

"Whether international legal framework governing transboundary movement of hazardous substances through sea is adequate to ensure its safe

transport and how far Indian law in this regard is in conformity with international norms and practices followed by maritime nations?

1.2 Objective of the Study

The primary objective of the study is to critically analyse the law governing transboundary movement of hazardous substances through the sea for the protection and preservation of marine environment. The study also focus on identifying the legal issues involved in the regulatory frame work and expose areas where the existing law is insufficient to address emerging issues. The study also attempts to suggest measures to make the current legal frame work effective for ensuring sustainable development.

1.3 Methodology of Research

The method of research adopted in this study is doctrinal in nature involving analysis and evaluation of both primary and secondary legal materials. The International law and practice, for protection of marine environment from transboundary movement of hazardous substances through sea, contained in multilateral conventions and treaties is examined in the light of international judicial decisions in this regard. The regulatory practice followed in India as evidenced in legislations and case law is made to examine how far they are comparable with that of maritime practice of states like Britain and the U.S. The practices followed by port authorities have also been elicited from different ports in Kerala.

1.4 Scope of the Study

In order to understand the scope of the study, it is necessary to discuss the meaning of meaning of "Hazardous substances", and "transboundary movement".

1.5 Meaning of Hazardous Substances

Hazardous substances for the purpose of this study are substances that may cause loss or damage if escaped into the marine environment when they are carried through the sea in ships.[5] Such loss or damage may be to human life, property at sea, or living and non-living organisms of marine ecosystem.

The international regulations on control of marine pollution from carriage of hazardous substances do not provide a clear perception of what constitutes a hazardous substance? During early times, substances that are inherently dangerous in nature like explosives, and radioactive substances were treated as hazardous.[4] With increase in carriage of bulk cargoes like grains, mineral ores, coal and similar cargoes, the casualties to ships caused by its heating, and improper stowage began to receive serious attention.[5] Seaborne carriage of oil also poses risk to the marine environment even though it is not inherently dangerous.[6] The risk of contamination from its accidental and

[4] Samir Mankabady, *IMO,*The British Shipping Rules, London,(1984) p.101; See also the Merchant Shipping Act,(U.K.),1894, Sec.301.

[5] See The International Convention for the Safety of Life at Sea, 1948, Chapter VI

[6] The International Convention for Prevention of Marine Pollution from Ships, 1973, Annex I

operational discharges into marine environment has led to its strict regulation internationally. Considering this several restrictions are also imposed on handling of oil and petroleum products.

Substances having chemical properties pose serious danger of fire and explosion due to humidity and vaporization inside ships holds. Industrialization and accelerated sea borne transport of chemicals have brought them under surveillance to avoid danger of pollution of marine environment.[7] Carriages of hazardous waste pose threat of pollution and concern for international community since it is toxic in nature.[8]

These substances differ in their characteristics, properties and nature of hazard posed by them. They are heterogeneous in nature. Hence regulations were developed in a scattered manner prescribing different standards. They do not follow a uniform approach for ensuring their safe carriage.[9] They vary not

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[7] *Id*., Annex II deals with safe carriage of Noxious Liquified substances in chemical tankers. See also International code for Construction & Equipment of ships carrying Dangerous Goods in Bulk. (IBC) Code. International Code for Construction and Equipment of Ships carrying Dangerous Chemical in Bulk (BCH) Code and International Code for Construction and Equipment of Ships Carrying Liquefied Gas in Bulk (IGC) Code, deals with similar safety regulations for Noxious and Hazardous Liquid substances and gas carried in bulk in ships.

[8] See the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal, 1989.

[9] For more discussion refer Furquan Ahmad, "A conceptual analysis of hazardous substances in India", *Chartered Secretary*, (Sept 2002), p.379. See also Oscar

only in their chemical composition but also in the manner in which they enter the marine environment and the nature and extent of their effects on the marine environment. Some pollutants may be pin pointed while others are not traceable. Some maintain their chemical integrity for years while others get degraded within hours or days. Some marine pollutants present a clear and immediate threat to marine life, others may be dangerous only in the long run. Therefore no single measure at national or international offer a comprehensive definition of hazardous substance. Different regulations have defined it differently. Apart form the definition, it is also known differently as marine pollutants, harmful substances, and dangerous substances. The strategy adopted by law to control pollution caused by these substances also vary. In some cases package, stowing norms are mandated whereas in the case of other substances like oil rules try to prevent its discharges. So whatever be the name with which they are known, the term hazardous substances, for the purpose of this study, refers to all such substances that pose a danger or risk to life, property or marine environment when carried in ships.

1.6 Meaning of Transboundary Movement

The term "transboundary movement" means movement involving crossing of boundary of one or more states. It is usually used to denote something that is transnational in character. Traditionally, the term

Schachter and Daniel Serwer, "Marine Pollution Problems and Remedies" ,65 *American Journal of International Law,* (1971), pp.84-111

transboundary, used in the context of environmental damage, refers to a specific type of damage caused by or arising in a state and affecting the territory of another state.[10] Transboundary movement of hazardous substances in its primary sense is intended to mean movement or transport of hazardous substances from one country to another. 'Transboundary movement' refer to actual movement of hazardous substances during carriage in ships. During such movement ships carrying hazardous substances passes through the territorial waters, and maritime zones within national jurisdiction of more than one state or areas beyond national jurisdiction viz., high seas.[11] Such movement may also be undertaken with the object of trading, as raw material, for dumping, or recycling.

Discharges of hazardous substances may occur incidental to actual movement as hazardous substances in ships. Such discharges may be accidental caused by casualties involving the ships carrying them or it may be due to discharge of cargo intentionally from operational procedures like tank washings and ballasting, to save the life or property at sea. This category of movement also falls within the purview of the term transboundary movement in its broader sense. As a result of such discharges hazardous substances can after the spill or discharge into waters within the jurisdiction of one state

[10] Xue Hanquin, "*Transboundary Damage in International Law*", Cambridge University Press, U.K.., (2003) pp. 1-356, at p.3

[11] *Supra* n.8, Art.4 provides a definition of transboundary movement.

spread to the territorial waters and maritime zones of adjacent coastal state and contaminate their waters or areas common to all states like high seas.[12] This can also be treated as amounting to transboundary Pollution. Hence the object of the study is to include all such movement of hazardous substances pursuant to its carriage in ships.

1.7 Structure of the Thesis

The thesis consists of twelve chapters including the Introduction and the Conclusion. The first chapter gives an introduction to the topic, its relevance and scope of research, and the methodology followed for the research. In order to properly understand the scope of this study meaning of "hazardous Substances" and "transboundary movement" are also examined. The structure of the thesis also forms part of this chapter.

The second chapter traces the historical evolution of the law governing transboundary movement of hazardous substances through the sea. There had been international and national attempts to regulate pollution from ships in transboundary movement of hazardous substances. The international standards that evolved under the auspices of the League of Nations, the United Nations, and the International Maritime Organisation are discussed in this chapter. The international measures have adopted with slight variations in national jurisdictions like England, American and Indian legal systems. This has also

[12] *The Cherry Point Oil Spill* (1972), and *The Torrey Canyon Incident,* (1967) are good illustrations of such transboundary marine pollution damage.

resulted in conflicting and inconsistent judicial decisions. This has led to lack of international uniformity which is highly demanding for international trade through sea. The lack of a comprehensive regulation is a major drawback.

The important problems examined in the next two chapters are the jurisdictional issues relevant to regulation of transboundary movement of hazardous substances. The tripartite scheme for exercise of jurisdiction involving Flag states, Coastal states and Port states for the effective prescription and enforcement of pollution prevention standards inside a state's maritime zones forms the thrust of these chapters. The jurisdictional issues relevant to internal waters and territorial sea is dealt in the third chapter while those related to other maritime zones like contiguous zone, EEZ and high seas are studied in the fourth chapter. In examining the scope of coastal states jurisdiction inside internal waters and territorial sea, whether coastal state can exercise authority, to deny access to foreign vessels carrying hazardous substances, by prescribing physical safety standards that far exceed international norms is an important issue. In the wake of recent pollution casualties like, *the Erika*, *the Prestige* and *the Castor* it is also worthwhile to expose the shortcomings in the present international and Indian law regarding granting of 'Place of refuge' for ships in distress carrying hazardous substances. Within the territorial sea, how far the delicate balance between the coastal states jurisdiction over ships involved in transboundary movement of hazardous substances and the 'right of innocent passage', created by the

UNCLOS,1982, ensures effective prevention of pollution is studied. The study lead to the inference that jurisdictional provisions governing these waters does not give regard to the coastal states duty to protect marine environment from transboundary movement of hazardous substances. The international and national practices of maritime states does not favour refuge for ships in distress carrying these substances.

The jurisdiction of coastal states to prevent pollution of contiguous zone, EEZ and high seas is another area of special interest. The different juridical nature of contiguous zone and the high seas character of EEZ acts as a major constraint on the exercise of jurisdiction to prevent pollution. The regime of the high seas also appears limited by the exclusive competence of flag states over ships maintained under the UNCLOS regime. Hence the adequacy of mechanism established under international law for ensuring effective control of pollution from other zones deserves a critical study. The navigational interests of foreign vessels carrying hazardous substances gain priority over the coastal states interests in these zones. The enforcement mechanisms to prevent marine pollution from ships in these zones also favour flag states.

The fifth chapter deals with intervention powers of coastal states. It is an extraordinary jurisdiction to prevent spread of pollution to its waters from maritime casualties involving ships carrying hazardous substances. This chapter is an enquiry in to the nature and scope of the right of intervention, limitations on the exercise of this power and precautions to avoid its misuse. It

is also important to ascertain how far use of too broad and vague terms to describe the power of intervention under UNCLOS, 1982 and Intervention Convention are adequate to serve the purpose of prevention of pollution. The intervention powers of coastal state are very weak. There is need to clarify the law in this regard to empower coastal states to properly make use of this power to intervene in casualties inside a states maritime zones.

Carriage of dangerous cargo also attracted international concern to ensure its safe transport through the sea since the adoption of the Hague Convention, 1924. These measures implemented through the Hague Visby rules underwent improvement under the Hamburg Rules, the Rotterdam Rules and the IMDG code. The effect of these international measures on ensuring safety of maritime carriage of dangerous goods in ships is critically analysed in chapter six. These measures though evolved as an industrial solution to ensure protection against loss of cargo and damage to ships, they are also relevant from the perspective of prevention of pollution from ships.

Seaworthiness and cargo worthiness of ships in transboundary movement of hazardous substances play an important role in promotion of its safe carriage and prevention of accidents. Since shipping is international in character it is imperative that the standards of physical safety of ships and competency of crew need to be uniform throughout the world. But the practice of environmentally ambitious states does not seem to acknowledge this principle. The lack of uniform standards also poses problems for effective

enforcement and imposes hurdles in international trade. This issue stands addressed in chapter seven. There is need to ensure implementation of uniform standards among all states for the promotion of international trade.

The eighth chapter deals with civil liability for accidental pollution damage from ships carrying hazardous substances. The existing civil liability regime for marine pollution damage from ships does not provide comprehensive framework to deal with issues of liability arising out of maritime casualties involving hazardous substances. Hence this chapter explores the effectiveness of international civil liability regime to remedy the damage to marine environment caused by accidents involved during transboundary movement of hazardous substances through the sea. There is a trend emerging among major maritime states like the U.S. and the European Community to adopt criminal penalties towards accidental pollution discharges. This diverging scheme is a threat to the internationally followed civil liability scheme for seaborne pollution from hazardous substances.

The concept of 'limitation of liability', rooted in general maritime law has been applied to the particular field of marine pollution damage from hazardous substances. This has been done without much enquiry in to it suitability for addressing pollution damage. The shortcomings brought about by such adaptation together with the inherent drawbacks due to the unique nature of environmental damage, its non economic and no use value, make its recovery a difficult task. The ninth chapter makes a critical study of the scheme

for limitation of liability and compensation for pollution damage arising from the transboundary movement of hazardous substances in ships.

The experience with carriage of hazardous substances shows that maritime casualties are to some extend beyond human control whatever stringent the regulations are. The occurrence of such incidents poses environmental pollution damage to waters of coastal states and may also pose a potential hazard to the safety of navigation, contamination of amenities like ports, terminals, and beaches. The experience with maritime casualties shows that are beyond control however stringent the regulations are. But it is possible to remain prepared to deal with such casualties. The tenth chapter examines the scope of marine pollution contingency preparedness scheme for preventing the spread of pollution following a casualty. The contingency preparedness scheme does not consider the relevance to plan for essential requirements to face casualties involving ships containing hazardous cargo like salvage arrangements.

The eleventh chapter evaluates the role of safety management system to monitor operational and functional management of ships to ensure proper compliance with existing standards for physical safety and prevention of pollution from hazardous substances. A thorough study of the key aspects of the scheme is required for its effectiveness. This also highlight the scope for using ISM code as a criteria for determining seaworthiness of ships engaged in the trade of hazardous substances. The impact created by the shadowing of the role of the master of the ship in prevention of marine pollution from ships

requires re-examination. The limitations with the newly introduced concept of 'Designated person' for controlling pollution during shipping casualties also require serious discussion. Both international and national laws implementing ISM are insufficient to mandate it as condition of seaworthiness for ships.

The last chapter presents the findings arrived in this study. The conclusion arrived at establish that the international legal framework governing transboundary movement of hazardous substances in ships has several drawbacks. Indian legislation in this regard also falls short of proper norms giving force to the regulatory framework to protect and preserve the marine environment. This chapter also makes suggestions to improve the legal frame work governing transboundary movement of hazardous substances through the sea.

Chapter -2

EVOLUTION OF THE LAW GOVERNING TRANSBOUNDARY MOVEMENT OF HAZARDOUS SUBSTANCES THROUGH SEA

During the ancient times, the law of the sea largely reflected the traditional notions of freedom of the seas. Conflict over the seas was avoided by leaving the oceans open to all. This, however, left the oceans free to misuse and over exploitation. The policy underlying the sea essentially meant laissez faire and implied freedom to use the seas and to exploit its resources.[1] The core principle of this approach was that no state may subject the oceans to its exclusive use or deny access to other states. During this period seaborne transport also developed in a laissez-faire way without any regulatory intervention. The freedom of the seas concept of Hugo Grotius and the prevalent philosophy underlying the regime of the seas that its resources are generally inexhaustible and could sustain permanent injury from human activities also supported this approach. This together with the negligible amount of seaborne transport of hazardous substances carried in ships and restriction of such carriage to coastal trade gave concerns for the safety of

[1] See Louis Henkin: "Old Politics and New Directions" in Churchill and Simonds Welch, *New Directions in the Law of the Seas, Collected Papers III*, The British Institute of International and Comparative Law, Oceana Publications .Inc., New York, (1973), pp. 3-11 at p.4.

environment the least priority at international level.[2] Since marine pollution was not viewed as a serious issue, until formation of intergovernmental organisations like League of nations, and United Nations, regulations also did not focus directly on prevention of pollution of the marine environment. But measures to prevent accidents involving ships was seen to have been developed by maritime states towards the beginning of middle ages. Strict policing of navigation through monitoring of ships inside ports and improving seaworthiness of ships by tightening surveys and inspections also evolved by coastal states like France and Spain. The industrial revolution of 19th century and the consequent increase in maritime transport through the sea, with induction of more ships having enhanced efficiency and capacity created more risks in the form of collisions and ship wrecks. States became more concerned about safety of ships. Countries like United Kingdom and France started regulating carriage of hazardous substances through sea separately.[3] The laissez faire attitude that remained predominant through the 19th century also saw the birth of earliest classification societies and also initiatives to improve maritime safety through international co-operation. Regulations to prevent collisions at sea was adopted at the initiative of Britain and France in 1863 and later ratified by international maritime community. The *Titanic Disaster* of

[2] Ian Brownlie, " A survey of International Customary Rules of Environmental Protection" inTechlaf,Ludwick.A,Utton Albert E (ed.), *International Environmental Law* , Praegor Publishers, New York, (1979), at p.1.

[3] See generally IMO, "The History of Safety at Sea", Focus on IMO, the Hague, (1989).

1912, also made a bigger impact on international regulation of maritime safety. The first International Convention for the Safety of Life at Sea (SOLAS) was adopted in 1914 following the disaster. But the Convention never entered in to force due to outbreak of First World War. After the first world war attempts were made to develop the law under the international organizations like League of Nations, the United Nations and the I.M.O.

2.1 The efforts under the League of Nations

In terms of adoption of international measures to regulate transboundary movement of hazardous substances in ships, the League of Nations, formed after the First World War could not do much. But the period occupied by the League of Nations is marked by an era that set the ground for the development of international attention and co-operation asserting the need for its regulation at international level. Considering discharge of oil from ships in to sea as a serious issue maritime states like U.S.A and the U.K. have been very active in drawing attention of the League to this issue, after it was established in 1919.[4] At the initiative of U.S.A., a Preliminary Conference on Oil Pollution of the Navigable Waters was held at Washington in 1926 to address the issue. In 1934 on submission of the matter by the U.K. government to the League, the Assembly of the League of Nations authorised the

[4] Tatjana Keselj, "Port State Jurisdiction in respect of Pollution from Ships : The 1982 United Nations Convention on the Law of the Sea and The Memoranda of Understanding", 30 *Ocean development and International Law*, (1999), pp.127-160 at p. 127

Communication and Transportation Organization to conduct an enquiry through a Committee of experts from countries to ascertain the pollution damage done by oil to its ports and coastal waters.[5] Following its report, efforts were made to convene an international Conference to arrive at an international convention to regulate oil pollution from ships. But the difficulty with obtaining participation from maritime states like Italy, Japan and Germany and the World War II that followed shelved all those attempts to regulate pollution from ships. The first attempt under the League of Nations to codify the jurisdictional aspects of law of the sea made at the Hague Conference also failed due to lack of consensus as to the breadth of territorial sea.

2.2 Developments under the UNCLOS framework

Protection of the marine environment was not given much attention during the first Conference on the Law of the Sea, 1958.[6] Due to lack of awareness about environmental hazards posed by hazardous substances other than oil, its concern was also limited to oil pollution from ships. There was no

[5] Pollution of the Sea by Oil: Memorandum, The Secretariat of the United Nations Preparatory Document No. 8, Document A/Conf.13/8 *[29 October 1957]* available at *http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1958/docs/english/vol_I/11_A-CONF-13-8_PrepDocs_vol_I_e.pdf.*

[6] See the 4 Conventions adopted by the 1958 Geneva Conference viz., The Convention on the Territorial Sea and the Contiguous Zone, 1958, 516 U.N.T.S 205 ,the Convention on the High Seas, 1958, 450 U.N.T.S 82, the Convention on the Continental Shelf, 1958,499 U.N.T.S 311, and the Convention on Fishing and Conservation of the Living Resources of the High Seas, 1958,UNTS 311.

obligation thrust on states to control marine pollution from maritime transport of hazardous substances.[7] At that time the principle that afforded ground for prevention of pollution and protection of environment like state responsibility rested on a handful of arbitral and judicial decisions concerned only incidentally with marine pollution and formulated at a high level of generality.[8] Therefore the Geneva Convention that resulted also provided only for general protection and rights of redress for states affected by pollution. In the absence of established principles imposing duty on states to regulate pollution of the seas under traditional international law, states were merely required to regulate pollution of high seas taking in to account existing standards. This in practice left much freedom on the part of states as to the content and nature of standards to be adopted. The Geneva Convention did not create any stir in international maritime policy. Even though states like India, the U.K. and the U.S.A. played a crucial role in the Conference they failed to become parties as the convention did not accept many of their proposals.[9]

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7 Alan E. Boyle, "Marine Pollution under the Law of the Sea Convention", 79 *American Journal of International Law*, (1985), p.347

8 *The Trail Smelter Arbitration*, 3 R.Int'l Arb. Awards 1905 (1945) *The Corfu Channel case*, (1949) I.C.J. Rep.4, *Lake Lanoux Arbitration* 12 R.Int'l Arb. Awards281(1957). Internationally, the Principle of state responsibility for pollution damage evolved through these landmark decisions. But they are too general in its application to marine pollution.

9 India's stand on archipelagic status to Andaman's & Nicobar Islands, safety Zones, notification for passage of warships through Territorial Sea was turned down at the

The conference to adopt the UNCLOS II in 1960 also is not of any help because as a result of disagreement on width of territorial Sea the Conference could not arrive at a convention. But vessel source marine pollution from ships carrying hazardous substances was one of the real issues that dominated the negotiations during the third United Nations Conference on the Law of the Sea held in 1982.[10] The traditional principles which were used to address issues of marine pollution seemed to be unsatisfactory and ineffective in eliminating pollution from ships and protecting coastal states from threat posed by increase in transport of oil and other hazardous substances by sea. The principle of exclusive flag state Jurisdiction over vessels beyond territorial sea did not afford effective basis to protect coastal states interests. The efforts at international level after the *Torrey Canyon* disaster introduced new principles like civil liability to address issues relating to liability and compensation for marine pollution damage.[11] Similarly principles underlying coastal states jurisdiction also underwent drastic changes. The recognition given to application of these principles to regulations affecting transboundary movement of hazardous substances among states did

conference. Similarly unsettled width of Territorial Sea remained a major problem for the U.K. & the U.S. to ratify UNCLOS I.

[10] The United Nations Convention on the Law of the Sea, 1982 (hereinafter referred to as "the UNCLOS III"). For the text of the convention see 21 I.L.M. 1261.

[11] They include Amendment to OILPOL,1954, made in 1964, the International convention on the prevention of marine pollution by Dumping of Wastes and Other Matter,1972, the International convention relating to Intervention on the High Seas in cases of Oil Pollution Casualties,1969,the International convention on Civil Liability for Oil Pollution Damage 1969 etc.

much to redefine the framework towards regulation of vessel source marine pollution under UNCLOS III. Hence UNCLOS III dedicated Part XII to exclusively deal with pollution from ships. On the jurisdictional front UNCLOS III' goes a step forward and has received the support coastal states like US, India and maritime states like the U.K. It achieved a balance between the coastal states' interest in protecting their environment from maritime state's interests in obtaining expeditious and inexpensive passage of their vessels through the high seas. The innovative Port State Jurisdiction is a major addition made by the UNCLOS, III empowering coastal states to arrest, prosecute, and punish vessels violating applicable international pollution rules, while traversing its territorial waters or exclusive economic zone have been put in to effect by coastal states as an effective tool to check pollution of seas by foreign vessels.[12] The Convention vest coastal states with exclusive jurisdiction to regulate pollution from ships passing through its internal waters and territorial sea. But inside Exclusive Economic Zone, considering its status of high seas, it insist on having internationally recognized standards for checking pollution from ships. At the same time UNCLOS III retains the traditional notion of flag state's right to have control over its vessels for violations in its exclusive economic zone.[13] The accession of UNCLOS III into Indian and the U.K. scheme have introduced great changes for prevention of

[12] *Supra*. n.10 Part XII and Art. 194, 195 221 and 211(7),

[13] Jose Luis Vallarta, "Law, Protection and Preservation of the Marine Environment and Marine Scientific Research at the Third United Nations Conference on the Law of the Sea" , 46 *Law and Contemporary Problems,* (1983), pp.147-154

pollution from ships.[14] The U.S.A. has not acceded to the scheme, but jurisdiction has been effectively used to check pollution from vessels in to its waters.

2.3 Developments under the International Maritime Organization (IMO)

Originally when the International Maritime Organisation[15] was formed, prevention of pollution of the seas was not its major concern, and its mandate was to foster only intergovernmental co-operation in relation to shipping.[16] In the early 1950's the growth in the amount of oil being carried through sea and the shipping tonnage made marine pollution, a matter of particular concern for

[14] James L. Malone, "The US and the Law of the Sea after UNCLOS III" ,46 *Law and Contemporary Problems*, (1982) pp.29-36

[15] Hereinafter called "the IMO"

[16] The International Maritime Organisation was earlier known as the Inter-Governmental Maritime Consultative Organisation (IMCO). It was established as a specialized agency of United Nations by the convention on Inter-Govern-mental Maritime Consultative Organisation in 1948. IMCO only composed of an Assembly, a Council as its governing body, a Maritime Safety Committee as its technical organ to deal with safety standards for ships and a secretariat. A Marine Environment Protection Committee (MEPC) was established as a subsidiary body of the Assembly in 1973 to perform the functions conferred upon IMCO under conventions for the prevention and control of pollution from ships. The IMCO Convention which initially did not mention ocean pollution was amended to include pollution prevention as its objective. See for an outline of IMO's work Lawrence Juda, "IMCO and Regulation of Ocean Pollution from Ships" 26 *The International and Comparative Law Quarterly*, (No. 3) (July 1977), pp. 558-584. See also D. H. N. Johnson, "IMCO: The First Four Years (1959-1962)," 12 *International and Comparative Law Quarterly*, (1963), p.38.

the IMO. A significant development in this regard was the establishment of Marine Environment Protection Committee to carry out the task in addition to Maritime safety Committee dealing with safety standards for ships. By that time, the increased demand for oil worldwide and enhanced sea borne carriage of Oil and consequent pollution of the ports, beaches, terminals and coastal areas of states, soon began to concern individual nations like the U.S.A, and the U.K. Operational discharges of oil were seen as posing a potential threat to their marine environment. They initiated legislations to prevent operational discharges of oil.[17] And at the initiative of the U.K., OILPOL Convention was adopted in 1954.[18] After the entry in to force of Convention establishing the IMCO in 1959, it was delegated with responsibilities under the OILPOL, 1954. Thereafter IMCO has been constantly tightening the restrictions on prevention of marine pollution under the OILPOL convention. A spectacular addition to law that occurred during this time was that it provided the starting point for considering construction standards as a means for dealing with marine pollution from transboundary movement of hazardous substances.[19]

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[17] See the New York Harbour Act, 1886, 24 stat 329, the Refuse Act, 1899 adopted in the U.S. See also the Oil in Navigable Waters Act, 1922 (U.K.) in this regard.

[18] International Convention for the Prevention of Pollution of the Sea by Oil, 1954, T.I.A.S.,4900

[19] *Supra*.n.at p.561

But it was the *Torrey Canyon* Incident (1967) that propelled IMO's regulatory measures in the direction of prevention of marine pollution.[20] The emergency session of IMCO's Council called by the U.K. after the incident addressed the inadequacy of the existing laws to deal with several aspects of maritime carriage of hazardous substances. Among the most important was the need to evolve laws to check pollution from carriage of other noxious or hazardous cargoes, the sea transport of which was becoming common. Pollution from ships caused by collisions and groundings rather than intentional discharges, was becoming a pressing concern requiring a shift in the emphasis of law. It emphasized the important aspects of maritime safety like need for the establishment of clearly defined sea lanes, the guidance of ships within a certain distance from the shore by shore-based stations, equipment of ships and navigational aids, regulation of speed, and the formulation of international standards for the training of officers and crew on oil tankers and other ships carrying hazardous cargoes. IMCO also introduced design, construction and equipment standards for ships which carry such cargoes under the SOLAS Convention by an amending it in 1960. Thus Prevention of pollution came to be considered as a dominant concern of IMCO independent of safety of life at sea.

[20] See the Faulkner Committee Report, (U.K), 1953.

It was the occurrence of the catastrophic Torrey Canyon incident[21] that drew the attention of IMCO to several inadequacies then existed in the then oil pollution prevention regime. It also greatly expanded powers of IMCO and led to demands for a more equitable and accessible liability scheme to compensate marine pollution damage.[22] Its lack of concern for accidental pollution from ships and the absence of guidelines to determine issues relating to liability and compensation for marine pollution damage came to the limelight after the incident. Until then there were no specific norms applicable internationally to deal with the issue of liability for pollution damage to marine environment from ships even though rules for limitation of liability for general maritime claims existed. The common law principles till then applied to resolve liability issues approached pollution damage from ships by applying tortious principles of negligence, trespass and public nuisance which in practice is difficult to establish in marine pollution cases.[23] This state of affairs led to the adoption of principle of strict liability for marine environmental pollution damage under

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[21] *The Torrey canyon Incident* (1967). In this incident, *Torrey Canyon* a Liberian Oil Tanker ran aground while entering the English Channel, Spilling 120,000 tons of crude oil causing damage to coasts of UK & France. It was the biggest ever oil spill recorded to that time See also Brown E.D "The lessons of the Torrey Canyon : International law aspects" 21 *Current Legal Problems*, (1968) ,pp. 113-134

[22] *Supra*.n.16

[23] *Esso Petroleum Corporation v. Southport Corporation (The Wagon Mound* (No.1) (1956) A.C.218, and *The Wagon Mound (No.2*) (1967) A.C.617. These decisions revealed the limitations of common law principles to determine liability for marine pollution damage.

the civil liability regime adopted by the IMO. This scheme initially applied to marine oil Pollution damage from ships and later extended to cover other hazardous substances also. After the acceptance of strict liability principle for marine pollution damage the concept of risk management was also introduced at a later stage to interests involved in the trade of carriage of hazardous substances. This was sought to be achieved by creation of a fund contributed by cargo interests and supplemented by receivers of crude oil and heavy fuel oil, to take account of pollution damage claims beyond that guaranteed under the civil liability regime but limited by the Ship owners right to limit liability or he is not liable or capable of meeting his liability.[24] In addition to this industrial initiatives to provide interim measures also existed to provide interim relief.[25] The civil law concept of providing compensation for pollution damage based on strict liability principle initially applied to marine pollution caused by oil,[26] has not achieved uniformity in its application to all hazardous

[24] The International Convention on the Establishment of an International Fund for Oil Pollution Damage, 1971, hereinafter called the Fund Convention. For text of the Convention see 11 I.L.M.(1972) p.284 as amended by the 1989 and 1992 protocols.

[25] They include Tanker Owners' Voluntary Agreement on Liability for Oil Pollution (hereinafter called 'TOVALOP'), 8 I.L.M. 497 (1969) and Contract Regarding an Interim Settlement of Tanker Liability for Oil Pollution (hereinafter called 'CRISTAL') 10 I.L.M. 137 (1971). These are oil Industry initiatives to supplement existing compensation schemes.

[26] The Merchant Shipping Act,1958, ss. 352G to 352R, added in 1983 introduced civil liability for oil pollution damage . The amendments to Civil Liability scheme

substances. Long delay occurred on the part Indian Legislature to absorb these change in law to shift the burden imposed on ship owning interests and spread uniformly among other interests.[27]The principle of civil liability has not been able to demand uniform acceptance among the world community. The policy followed by the European Community in this regard in recent times tends to make paradigm shift in this regard. Originally European Community's attitude was also in tune with international scheme rooted in the civil law. But after the *ERIKA* and *Prestige* disasters, the dissatisfaction with the enforcement of existing discharge standards under MARPOL and the narrow scope of civil liability scheme to address all possible marine environmental pollution damage prompted it to deviate from international stand. The European Community introduced the principle of criminal liability for both intentional and accidental pollution damage from ships.[28]The situation in the U.S. is different. It is not a party to the international marine pollution liability and compensation scheme,

added b y the 1992 protocol to the Civil Liability convention was also added recently by the Merchant Shipping (Amendment) Act, 2002.

[27] This attitude of India is better expressed in following words by T.K.Thommen , J., in *M.V.Elizabeth v. Harwan Investment and Trading Pvt Ltd,* A.I.R 1993 SC 1014-1036 Para 77 that "India seems to be lagging behind many other countries in ratifying and adopting the beneficial provisions of various conventions intended to facilitate international trade"

[28] See Directive 2005/35/EC and Framework decision 2005?667/JHA imposing criminal sanctions for vessel source pollution discharges in the European Community

but its regulations place great reliance on the civil liability principle.[29] But a striking difference evident in the U.S. practice is that the scope for limitation of liability is narrowed down so that scope for limitation of liability is meagre.[30]

Another major contribution of the *Torrey Canyon Disaster* at international level is that it set ground for the establishment of coastal states right to intervene in marine pollution casualties occuring on high seas as a measure to prevent it from spreading to its coasts. Accordingly, elimination and mitigation of pollution arising from accidents or casualties already occurred remained the objective behind adoption of the Brussels Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casaualties in 1969.[31] This public law measure was also evolved initially as a special measure to be control oil pollution from ships and later expanded to cover casualites involving other hazardous substances also.[32] This Convention enabled coastal states facing grave and imminent danger from oil pollution to

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[29] See Oil Pollution Act, 1990, Pub.L.No.101-380, Marine Protection Research and Sanctuaries Act,16 USC §1443 etc.

[30] Edger Gold, "Liability and Compensation for ship-source marine pollution : The International System" in Helge Ole Bergesen,George Parmann and Oystein B.Thommessen (eds), *Yearbook of international Co-operation on Environment and Development,* (1999/2000),pp31-37

[31] Hereinafter called "The Intervention Convention", 1969. For the text of the Convention see U.N.T.S, Vol.97 p.211.

[32] Based on the Civil Liability scheme for Oil, civil liability schemes has been incorporated in international measures dealing with liability of Hazardous Waste, Radio active Substances, Hazardous and Noxious substances.

take necessary measures to prevent damage to its coasts.Eventhough coastal states may be said to have had this right already, the convention proved to be a step forward in that it spells out the modalities for the exercise of that right and provides for the consultation of states and other affected parties as a safeguard.The Intervention Convention,1969 which legitimised and extended the right of coastal states to take protective measures in the wake of a maritime casualty involving risk of marine pollution received immediate response from the international community. States like the U.S[33]. and the U.K.[34] have evolved regulations to provide for an extensive form of this right. In UK , the Merchant Shipping and Maritime Security Act,1997 allows secretary of State to designate temporary exclusion Zones aroung ships causing pollution to prevent interference with couter pollution or safety measures. But it is quite unfortunate that a peninsular country like India have not so far initiated steps to ratify the Intervention convention.

The beginning of 1970,s saw a new order of the seas for the prevention of pollution from carriage of hazardous substances. This period marked an increasing concern around the world for the protection of environment.[35] The

[33] Intervention on the High Seas Act, 33U.S.C.§§ 1471-1487 implements the Intervention Convention,1969 in the U.S.

[34] See the Merchant Shipping Act,1995, Sec. 137 and 138A and Merchant Shipping (Prevention of Pollution) (Intervention) (Foreign Ships) Order, 1997

[35] *Alan E. Boyle*, 'Some problems and developments in the law of the sea', 14 Marine *Policy*, (1992), p.80

epitome of this trend has been the Stockholm Conference held in 1972, calling on states to prevent pollution of the human environment which particularly referred to the need to prevent discharges into the sea that causes irreversible damage to the environment. Among other measures were the London Dumping Convention,1972 imposing licensing for dumping of certain substances hazardous to marine environment and prohibition of dumping more toxic substances in to the sea and adoption of regional measures for prevention of marine pollution from land based sources like the 1974 Paris Convention, 1974 Helsinki Convention, the 1980 Athens Protocol etc.[36] The essence of the international policy in attempting to balance between environmental protection and economic development had its reflections for prevention of pollution from ships also. The adoption of MARPOL Convention was a responsive measure in this direction. MARPOL introduced discharge standards for ships carrying hazardous substances like oil. Though MARPOL was later reformulated to control from other hazardous substances and checks for prevention of accidental pollution, initially countries were reluctant to accept it. In response to the trend set by the Stockholm declaration. Several major developments took place in national legal scenario also. In order to safeguard its maritime interests, India thought it proper to provide for a general legal framework specifying the nature, scope and extend of India's right, jurisdiction and control in the various maritime zones which even after entry in to force of

[36] Andre Nolkaemper, "Agenda 21and Prevention of Sea-based Pollution –A Spurious Relationship?", 15 *Marine Policy*, (1993), pp. 537-556.

Geneva Convention,1958 in the international scene was governed by presidential proclamation. The Maritime Zones Act, 1976 was passed to lay down Limits for various maritime zones of India. Shortly after adoption of MARPOL Convention, a number of accidents occurred near the U.S. Coastal waters.[37] It requested IMO in 1977 to take more stringent measures to prevent accidental oil pollution by ships. IMO responded by Convening a Conference on Tanker Safety and Pollution Prevention in 1978. Following this a Protocol was adopted to MARPOL Convention in 1978 prescribing regulations to prevent accidental oil pollution from tankers.[38]

Seaworthiness of Ships implying need for sufficient and trained crew for the particular trade to which the vessel is put depending on the nature of cargo carried in ships. Only after establishment of IMO, training and certification of seafarers began to evolve into international norms. Lack of proper training among seafarers finally led to adoption of Convention on Standards of Training, Certification and Watch Keeping for Seafarers, 1978.[39]

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[37] *Metul*a (1978), *Mystery* (1975), *Aqro Merchant* (1974), *Golden Jason* (1977) are some of them.

Details of these incidents are available at *http//www. USCG. mill history /n-environment .html.Site visited on 27.06.12*

[38] See The 1978 Protocol to the MARPOL Convention. It introduced requirement of protectively located and segregated ballast tanks, and crude oil washing

[39] The International Convention on Standards of Training, Certification and Watch keeping for Seafarers (hereinafter called STCW Convention) For text see 1361 U.N.T.S. 2 as amended by the 1995 Protocol See also G. Sperling, "The New

The U.K., the U.S. and India are parties to this Convention. A major development in India that occurred in 1978 is that the government of India resolved that there should be an armed force of the Union called Coast Guard for ensuring the security of the maritime zones of India, protection of the Maine environment and other national interests in the zones.[40]

Even after entry into force of several multilateral measures to control pollution from ships, no result was felt in eliminating pollution from ships. The traditional concept of flag state jurisdiction followed under the Geneva Convention on the Law of the Sea was found ineffective. Because coastal states power to prescribe rules for operation of ships was limited to territorial sea. Beyond Territorial Sea, practically Flag state or State of nationality retained sole jurisdiction. On the other hand the duty of flag state to adopt and or enforce appropriate regulations was also too imperfectly defined and observed. Hence adoption of a new international legal regime for the management of the world oceans started from 1973. Finally after deliberations, the III UNCLOS was adopted in 1982.[41]The UNCLOS accepted that

Convention on Standards of Training, Certification and Watch Keeping: What, if Anything, Does it Mean?" 22 *Tulane Maritime Law Review* , (1998), pp.320-333

[40] See the Coast Guard Act,1978

[41] The Third United Nations Convention on the Law of the Sea, 1982. Hereinafter called III UNCLOS or UNCLOS, 1982. For the Text of Convention see 21 I.L.M. 1261 (1982). See also Jose Luis Vallarta, "Protection and Preservation of the Marine Environment and Marine Scientific Research at the Third United Nations

strengthening of flag state alone would not be sufficient and conference settled on extending jurisdiction of coastal state in certain limited respects in order to give greater role to port states.

A major shift in the regulation of marine pollution from ships occurred in the late 1980's.Till then, the legal strategy towards ships safety remained purely technical and contextual in nature. But enquiries made in to several accidents involving ships carrying hazardous cargo (specifically after the *Herald of Free Enterprise*) during this time manifestly identified human factor as the cause for the accidents and that existence of voluminous technical standards for safety of ships and pollution prevention alone is not sufficient to achieve the purpose. In addition to this, actually what is required to put these standards into effect is the competence, commitment, attitude, and motivation on the part of persons responsible for fulfillment of these requirements. As a result IMO adopted a resolution containing guidelines on management for safe operation and for pollution prevention from ships in 1989[42].This was followed by the adoption of ISM code in 1992. It became mandatory in 1998 under the SOLAS Convention. Legislative efforts in India to accommodate these changes

Conference on the Law of the Sea", 46 *Law and Contemporary Problems*, No.2,(Spring -1983), pp.147-154.

[42] Rodriguez and Hubbard, "The International Safety Management (ISM) Code: A New Level of Uniformity" *73 Tulane Law Review*, (1999)p. 1585- 1595, See also Williams, "The Implications of the ISM Code for the Transport of Packaged Dangerous Goods by Sea", in International Symposium on the Transport of Dangerous Goods by Sea and Inland Waterways (1998), 117.

occurred after a decade only.[43] In 2000, rules have been made under Merchant Shipping, Act, 1958 to accommodate the ISM code. The English merchant shipping law[44] absorbed these changes after European Community initiated measures to implement it.[45] The U.S. scheme also provides for regulation of safety management in ships.[46]The concern for protection of marine environment that set in after the *Torrey Canyon* Disaster and carried through the civil liability regime and MARPOL had its impact on conventions developed with the sole objective of safety of life also. The SOLAS was amended to address safety aspects of cargo ships for prevention of pollution of the marine environment. Even after 1978 Protocol to SOLAS which introduced major changes for safety of cargo ships, the convention has over the years come a long way in the path of prevention of pollution from ships.[47]

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[43] The Merchant Shipping (Management for the Safe Operation of Ships) Rules, 2000 *http://india.gov.in/allimpfrms/allrules/983.pdf site visited on 3/3/2012* See also the Merchant Shipping (ISM Code) (Ro-Ro Passenger Ferries) Regulations, 1997 (S.I. 1997 No. 3022)

[44] The Merchant Shipping (ISM Code) (Ro-Ro Passenger Ferries) Regulations, 1997 (S.I. 1997 No. 3022)

[45] European Council Regulation (EC) No. 3051/95, dtd. 8 December 1995.

[46] Title 46, United States Code , Chapter 32, "Management of Vessels" and Title 33 Code of Federal Regulations Part 96, "Rules for the Safe Operation of Vessels and Safety management Systems"

[47] Duplication of steering gear (1978) ,Emergency towing arrangement, Enhanced Survey for checking tank coating, Corrosion Prevention System Port state Supervision to check operation Procedure (1994), Automatic Identification system, International code for fire safety system (2000) Alarm & level monitoring ,

The beginning of 1990's was marked by an unrest on the international seaborne marine pollution regulatory scenario. Lack of ratification of global conventions on sea-based marine pollution and its implementation by states was seen as a major reason for increasing accidents involving ships carrying hazardous cargo.[48] Consistent with the global efforts to improve implementation and enforcement of seaborne pollution from ships , the Agenda 21 adopted in 1992 also reflected same trend and the need for improvement, acceptance and implementation of existing rules rather than development of new ones. Although control by port and coastal states is integral for implementation of regime for prevention of marine pollution from ships ,the role of flag states in this regard always remained a dominant factor. In consonance with efforts to improve flag state enforcement made at IMO level, Agenda 21 refered to the need to develop and extend procedures for Port State Control and for enhancing coastal states powers. Agenda 21 also advocates the use of precautionary principle in determining the rights and powers of coastal states to monitor vessels in waters under their jurisdiction. Since then the precautionary principle has been increasingly applied in extending coastal states jurisdiction in relation to ships posing a threat to the environment of their marine and coastal areas. An application of the

Bilges and Ballast tank pumps , access to cargo spaces (2002) may be looked in to in this regard.

[48] See Andre Nollkaemper, "Agenda 21 and prevention of seabased marine pollution" *Marine Policy*,(1993), p.538

precautionary principle for prevention of pollution by transboundary movement of hazardous substances is the concept of Particularly Sensitive Sea Area initiated by the IMO in 1991. Similar measures like Areas to be avoided, traffic separation schemes and special areas have been mandated under the SOLAS and MARPOL Conventions, by designating PSSAs, coastal states could apply measures to sea areas under their jurisdiction that may interfere with the freedom of navigation, guaranteed by international law of the sea.

The assumption of proactive role by European Community following maritime casualties of the 1990s is yet another amazing development in this regard[49]. After the *Sea Empress*, *the Braer*, *the Erika*, and *the Prestige* casualties in an attempt to save its coastal waters from marine pollution, the European Commission adopted legislative measures, like the *ERIKA I* and *ERIKA II* packages. The EU also initiated several promising measures for safe management of traffic and reporting requirements. The European Commission has also set up the European Maritime Safety Agency[50] to as act an advisory body to the national maritime safety agencies. These accidents also led to a major inquiry by the Lord Donaldson in to the sufficiency of the legal protection of merchant shipping from waterborne pollution in the waters of

[49] See Robert J. McManus, Marc A. Levy, Daniel M. Bodansky , Challenges to International Governance, Proceedings of the Annual Meeting, of American Society of International Law, (MARCH 31-APRIL 3, 1993), pp. 383-394 Available at *http://www.jstor.org/stable/25658750* site Accessed: 23/10/2010 .

[50] Hereinafter referred to as the 'EMSA'

U.K.[51] After the inquiry urgent changes in Great Britain's policy towards international marine pollution regime was made.[52]

After adoption of the 1978 protocol to MARPOL and its entry it in to force, a number of amendments were made to it for preventing pollution from ships. But Indian legal system have not responded positively to adopt them. One such addition to MARPOL Convention is 'double-hull' requirement for Oil tankers adopted in 1992. States like the U.K. have adopted these Amendments in 1993. In India, an amendment was made to Merchant Shipping Act, 1958 in 2003[53] stating that MARPOL, 1973 convention include amendments to MARPOL as amended from time to time. But no serious legislative efforts have been directed at incorporating the changes made to MARPOL.

Several accidents occurred in national and international waters during 1990's. Their impact on international maritime sphere has been of curative native. IMO in such situations initiated measures to prevent similar accidents in future. One such accident was the *Prestige* disaster of 2002.[59] IMO accelerated single-hull-phase out mechanism and took measures to implement them. MARPOL underwent major revisions in 2004 and 2006 to ensure safe transboundary

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[51] Glen Plant, " 'Safer Seas, Cleaner Seas,' : Lord Donaldson's Inquiry , The UK Government's Response and International Law,"44 *International and Comparative Law Quarterly*, (No.4), (1995), pp.939-948

[52] Id., p.940

[53] See the Merchant Shipping (Amendment), Act, 2003

movement hazardous liquids carried in bulk to take effect from 2007.[54] IMO has also accelerated the double hull requirements to prevent accidental pollution from ships carrying hazardous substances such as oil and other noxious and liquid chemicals carried in Tankers. Other additions made to improving safety of tanker ships carrying hazardous cargo include stricter construction standards of pump room to prevent pollution damage during collisions. After *ERIKA* Incident the regulatory control of Classification societies have also attracted international attention. The training requirements of ships carrying dangerous cargo has also underwent drastic changes in 2010.[55]

Now as such there are enough regulations to govern safe carriage of Hazardous substances through sea. But IMO's measures have not achieved the targeted maritime safety. These days IMO measures are aimed at improving the implementation of existing standards. The observations and suggestions made at the Earth Summit assume particular importance in this context. Since 2011, IMO has keen on improving implementation of its standards by coastal states. It is also working on periodic review of administrative requirements in mandatory IMO instruments to reduce administrative burdens. Thereby member states are encouraged to enhance reports of implementation of its

[54] See MARPOL Convention, 2006 Amendments, It entered in to force from Aug, 1,2007

[55] International Conference to amend the International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW) held in Manila, Philippines in 2010. These changes will take effect from 2012.

standards Conferences have been scheduled in 2013 to collect public consultation in this regard.

2.4 Regional Measures

In addition to international measures there are also regional efforts to prevent marine pollution from ships. These regional measures promote co-operation among near by states in combating marine pollution from ships carrying oil and other harmful substances in to waters of member states of regional groups.[56] Such Regional co-operation exist inn regions of Mediterranean, South China Sea, North East Asia and South East Asia. Contracting states are to develop and to maintain, either through bilateral or multilateral channels, Contingency plans to combat spills of oil or other toxic substances. Parties are to engage in monitoring activities and to arrange for information exchange to expedite response measures. Parties also undertake to instruct the crews of ships and planes to report all accidents which may cause pollution and presence and extent of spillages that may seriously threaten the marine environment.

2.5 Conclusion

The historical development of regulation controlling marine Pollution damage shows that there are several hurdles in the path of the development of

[56] See Lawrence Juda:The Regional Effort to Control Pollution in the Mediterranean Sea, 5 *Ocean Management* ,(1979), pp.125-150.

law governing the transboundary movement of hazardous substances. At the outset it is to be taken for granted that it has not been possible to devise a uniform system of rules towards regulation of transboundary movement of hazardous substances through sea. Every attempt made at the international level to introduce changes in the public control of pollution from ships was in response to some major maritime casualties involving ships carrying hazardous substances. There has not been a study to ascertain the limitations of the law in this regard on the part of IMO to provide a long standing remedy. This has led to overlapping and lack of clarity about the applicability of norms.

Private law remedies in this regard were evolved as panacea to the problems faced by indiscriminate application of common law principles to control of marine pollution from ships which is of a peculiar nature. Several contributions have been made by major maritime powers, the U.K. and the U.S. But the Indian legislature could not keep pace with international developments. This is probably due to lack of awareness, absence of qualified personnel and lack of studies and research conducted in to this area.

Legal regulation of marine pollution from carriage of hazardous substances requires a paradigm shift in order to ensure a clean and safe marine environment. The peculiar nature of marine environment requires special regulations keeping in view sustainable development of merchant shipping. It is apt that required measures may be taken by the IMO to consolidate the law in this area for better enforcement and compliance. Indian law in this regard

also need to be consolidated under the Merchant Shipping Act, 1958 and its rules. It is also necessary that uniform principles underlying the international norms is to be accepted as the benchmark while prescribing regulations fixing liability for marine pollution damage from all hazardous substances alike.

Chapter -3

PREVENTION OF POLLUTION FROM SHIPS IN INTERNAL WATERS AND TERRITORIAL SEA

Jurisdiction for the purpose of prevention of marine pollution from ships carrying hazardous substances is a complex subject. It implies the power of a state to affect the conduct of foreign vessels by means of regulations, adjudicatory mechanisms and enforcement techniques. Under the customary international law, and the broad framework for jurisdiction that stands addressed in the UNCLOS conventions vests jurisdiction in this regard on a tripartite scheme consisting of coastal states, port states and flag states. It represents an interplay of several principles both of traditional and modern origin. The traditional "territorial sovereignty" principle recognise exclusive coastal state's jurisdiction within waters adjacent to the land territory viz., internal waters, territorial sea, and archipelagic waters. The "protective principle" confers coastal states with jurisdictional basis to intervene in to maritime casualties to prevent or mitigate marine pollution.[1] The Port state jurisdiction to prosecute foreign ships visiting its ports for violation of pollution standards rests on the "universal principle". The "precautionary principle" also had great influence on jurisdictional framework governing

[1] Haijiang Yang, *Jurisdiction Of Coastal States over Foreign Merchant Ships in Internal Waters and the Territorial Sea,* Springer, Germany, (2006), pp.30-43

coastal state jurisdiction over vessels.[2] The jurisdiction of flag states over foreign merchant vessels can be viewed as based in the "nationality principle". Additionally the "effects doctrine" of and the "passive personality principle" are also relevant in exercise of coastal states jurisdiction over foreign ships. As a general principle, jurisdiction of coastal states decreases with increasing distance of these zones from the land territory of the coastal state. Even inside these zones, the nature of coastal states rights and obligations are different in criminal, civil and administrative matters.

This study examines the prospects of the current tripartite jurisdictional scheme combining the coastal, port and flag states under the UNCLOS framework. It is also proposed to examine the specific jurisdictional provisions underlying the IMO measures for ensuring an effective control of pollution from transboundary movement of hazardous substances in ships. This present discussion is restricted to jurisdiction exercised by coastal states over ships inside its internal waters and territorial sea.

With in internal waters, the exclusive territorial sovereignty enjoyed by the coastal states enables it to prescribe conditions to regulate access to ports. In the absence of navigational rights recognised for foreign ships in these waters, a tendency is seen to prescribe standards higher than internationally

[2] See the 1992 Rio Declaration on Environment and Development, Text of Declaration available at 31 I.L.M. (1992), p. 874. For the statement of precautionary principle see Art.15. See also Benedicte Sage, "Precautionary Coastal State's Jurisdiction", 37 *Ocean Development & International Law*, (2006), pp.359–387.

accepted norms for ships carrying hazardous substances like oil. This study is an introspection in to regime underlying coastal states jurisdiction to prevent pollution from ships within internal waters with emphasis on right of access to ports. Another issue crucial to the coastal state jurisdiction to prevent pollution from ships is the absence of obligation to provide 'place of refuge' for ships in distress inside internal waters. The regime of territorial waters equally has loopholes that prevent effective exercise of jurisdiction by the coastal states. The discussion in this chapter draws up on the relevant provisions of UNCLOS conventions and other specific international measures dealing with jurisdiction of states to prevent the pollution from ships. The policy undertaken by the IMO and other intergovernmental bodies form the basis for the study. The state practices and interpretations of law made by international and domestic judicial bodies in this regard are also examined.

The main issue explored is how the existing framework can be made effective and comprehensive to achieve better control of pollution of marine pollution at the same time balancing the navigational interests of vessels in the interest of international trade.

3.1Coastal State Jurisdiction for Prevention of Pollution in Internal Waters

The concept of "internal waters" as an integral part of the land territory forms the basis for exercise of sovereignty and jurisdiction by coastal states over marine pollution from ships into these waters. The area of the sea that lies

within or on the coastal side of the baseline from which the breadth of the territorial sea is measured is also denoted as "national waters" or "inland waters".[3] It covers areas such as bays, gulfs, estuaries and creeks, ports and roadsteads and waters inside straight baselines linking the coast with offshore features.[4] Over these waters a legal status similar to that of coastal state's land territory stands recognised under international law. Therefore neither the law of the sea conferences nor the conventions that resulted contain any regulations affecting them.[5] Over these waters, coastal states exercises complete sovereignty and foreign ships does not enjoy any right of transit. The only exception to this rule is where straight baselines are drawn along an indented coast enclosing as internal waters areas that had not been considered as such.[6] Where straight baselines are employed and it has the effect of enclosing as internal waters, which were not previously considered as such, the right of innocent passage comes in to existence in those waters. And except where a

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3 See O.P.sharma,*The International Law of the sea, India and the UN Convention on the Law of the Sea of 1982*,Oxford University Press, New Delhi ,(2009), at p.36; See also Christopher Colombos, *International Law of the Sea,* New York, (1959), p.148 also.

4 Robbert Jennings and Arthur Watts (ed.),*Oppenheim's International Law*, 9th ed. Universal law Publishing Co., New Delhi,(2003), p.502

5 Rudolf Von Churchill& Lowe, *Law of the Sea,* Manchester University Press, Manchester, (1998), at p.52

6 See UNCLOS, 1982, Art.8(2) and UNCLOS,1958,Art.5(2). A juridical endorsement of this concept of new internal waters was made in the *Anglo Norwegian Fisheries Case*,(1951), I..C..J. Rep. 116.

foreign ship is in real and irresistible distress, access of all ships to internal waters can be secured only by means of agreement between the states concerned.

Therefore foreign ships while inside the internal waters of a coastal State fall within the territorial jurisdiction of coastal state. The coastal State is free to regulate and enforce activity of vessels in the internal waters in the same way as on its land territory. Therefore all foreign merchant ships including ships carrying hazardous substances fall under the territorial jurisdiction of coastal states as they enter its internal waters.[7]Coastal states claim exclusive competence to prescribe for activities relating to the use of its internal waters. In ports for instance, states claim authority to regulate actions connected with port operations, movement of ships, berthing, anchorage and other event directly connected with usage of its waters. They are subject to the local law of the coastal state for the purpose of exercise of jurisdiction in regard to criminal, civil and administrative matters.

It is recognised that in principle, the law of the coastal state is supreme in internal waters. At the same time foreign vessels have a nationality and they are also subject to control by the law of the state whose flag they fly. This leaves scope for concurrent jurisdiction by the flag states. In order to avoid conflict of jurisdiction between coastal and flag states, certain general principles have been developed by practice of the states. The practice has been to restrict coastal state jurisdiction to events producing "*effects*" up on the

7 *The Jupiter* (1925) C.A. P.69

coastal state or community and leave matters which are of purely internal concern or discipline onboard the ship to the flag state.[8] In principle, the coastal state has no jurisdiction in regard to matters which affect only internal order of the ship or which concern merely the relation between members of the crew or passengers.[9] But some writers maintain that ships fall completely under the local jurisdiction, although as a matter of courtesy or comity this jurisdiction is not exercised in matters of internal order of the ship.[10]

Whether the jurisdiction is absolute or otherwise is still a matter of controversy. Some states are of the view that coastal state has no jurisdiction regarding matters which affect only the internal order of the ship or which concern merely the relations between members of the crew or passengers, while many others maintain that such a ship falls completely under the local jurisdiction.[11] The practice of states like France since 1806 shows that a foreign merchant ship is not subject to the jurisdiction of the coastal state in

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[8] See *US v. Aluminum Co. of America*, 148 F.2d. 416(1945) for a classic statement of this doctrine. The "*effects doctrine"* has been evolved by the American courts in the area of antitrust legislation. See also Malcom N.Shaw, *International Law*, Cambridge University Press, Cambridge, (2010), pp688 -696 for a discussion on "*effects doctrine*"

[9] Philip Caryl Jessup, *The law of Territorial Waters and Maritime Jurisdiction*, G.A.Jennings Co., (1927), pp.144-194

[10] *Ibid.*

[11] see *The S. S Lotus* , (1957) P.C.I.J. Ser. A No.9

matters touching only the internal order and discipline of the ship.[12] But, whenever the peace and tranquility of the coastal state was affected she was ready to assume jurisdiction also. This principle which was the basis for assumption of jurisdiction by several states was modified and refined in later cases like *The Tempest*.[13] It was held in this case that a homicide of one crew member by another may *per se* be deemed to affect the peace and tranquillity of the port .This case in effect gave priority to local jurisdiction. The practices of common law countries also have the same effect. The British practice in this regard is to exercise jurisdiction over foreign merchant vessels with certain reservations. In Great Britain the state is entitled to exercise jurisdiction over foreign merchant vessels lying in its ports.[14] As regards civil jurisdiction, matters which do not affect the coastal state are usually left to the flag states. In criminal matters a concurrent jurisdiction is exercised over foreign merchant vessels inside internal waters of England. The exercise of jurisdiction over its ships while halting in the US ports in cases involving internal affairs of the ship was opposed by Great Britain. In *Incres Steamship Co. Ltd v. International Maritime Workers Union* the U.S. assumed jurisdiction to enforce its labour

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[12] See the opinion of the French Counseil d' Etat in connection with the cases of *The Sally and The Newton* in the reply to the questionnaire of the Committee of Experts, League of Nations Publications C.74.M.39, 1929 Vol.II pp.81-82

[13] *Supra* n.4 p.622

[14] See British statement to the Preparatory Committee for the 1930 Hague Codification Conference in *Bases of Discussion* II Territorial waters, C 74 M.39(1929) V at p.99

regulations over crew of the ship, the UK argued that it "opposes the traditional internal economy doctrine long applied by all nations to foreign flag vessels temporarily in their ports".[15] The Supreme Court of the U.S. disallowed the application of the American labour law to vessels flying foreign flag and employing foreign crew. Similarly the U.S. court in *Mc Culloh v. Sociedad Nacional* referred to the "well established rule of international law that the law of the flag state ordinarily governs the internal affairs of the ship".[16]

But certain principles limiting the jurisdiction of coastal states inside internal waters can be seen under French practice. In a case involving two U.S. vessels, *The Sally and The Newton*, the French *Counseil d' Etat* advised that the local police jurisdiction should not be exercised in matters of internal discipline, or offences by members of the crew not affecting strangers to the vessel, unless the dimensions of the offence were such as to affect the peace and tranquillity of the port or local authority were called in by the master of the vessel whose flag the ship flies. Similarly in *The Jupiter,* jurisdiction of English Court to decide a writ served on a Russian vessel by an Italian company claiming ownership over the vessel, while the ship was lying in an English port was disputed on the ground of lack of jurisdiction. The Court held that it had jurisdiction even though the dispute was between foreigners and

[15] 10 N.Y. ed 218

[16] (1963) 372 U.S. 10, See also Lauterpacht, "The Contemporary Practice of the United Kingdom in the field of International law", 1 *International Legal Materials*, (1962), pp.58-63.

related to a foreign ship. But whether such jurisdiction is absolute or not is still not reached a settled position.

Marine pollution of the internal waters from ships cannot treated as something relating to the internal affairs of the ship. Accidental pollution caused by ships carrying hazardous substances in to the internal waters and facilities inside ports of coastal states are matters affecting the coastal states interests. In such instances coastal states can intervene and exercise jurisdiction over foreign vessels because of the territorial sovereignty enjoyed by the state. But in actual practice coastal states seldom exercise effective jurisdiction over foreign vessels inside internal waters. Coastal states assume jurisdiction and allow vessels to leave its waters after paying fine for illegal pollution discharges. Even if international customary law based on *'Effects Doctrine'* empower coastal states to invoke criminal jurisdiction coastal states seldom invoke this power. The jurisdiction of coastal states over foreign vessels in its coastal states can be classified into criminal, civil and administrative.

3.1.1 Criminal Jurisdiction over Ships in Internal Waters

Since internal waters are regarded as part of state territory, all foreign merchant ships are subject to the criminal jurisdiction of the state so long as they remain in internal waters. A state will not as a general practice interfere with what takes place on board foreign ships while inside its internal waters, unless inhabitants of the country are involved or peace and tranquility of the port or coastal states are affected. Matters connected with the internal

discipline of the ship, while she is in internal waters, are left to the authorities of the nation whose flag she is flying. But serious crimes like murder on board ship while she is in internal waters are considered as matters of grave concern to the coastal state. In such cases state authorities are perfectly justified in going on board to arrest the criminals and its courts exercise administrative and criminal jurisdiction over foreign merchant vessels. They are entitled to take coercive steps within reasonable limits to re-establish peace and tranquility of the port. But arrest of persons on board the ships or search of the ship by local authorities should be made only in accordance with the procedure established by the law of the land.

State practice in this regard also seems to follow the general trend expressed above. In the U.S. as early as 1887, the Supreme Court had assumed criminal jurisdiction over a Belgian vessel lying inside the port of New Jersey in respect of a crime onboard against a Belgian subject in *Wildenheus* case.[17] Great Britain has also been consistent in her practice in the exercise of criminal jurisdiction over foreign vessels. The practice has been not to intervene unless the crimes committed on board the ships have affected or are likely to affect the peace and good order of the port or assistance is required by the Captain of the ship is called for. The UK practice admitting the supremacy of territoriality

[17] *Mali v. Keeper of the Common Jail of Hudson County*, 120 U.S.1(1887)

of its laws not only over land but inside its ports and harbours stands settled since the decision in *Reg v. Keyn*.[18]

3.1.2 Civil jurisdiction over ships in Internal Waters

A merchant ship in a foreign port is subject to the local jurisdiction in civil matters[19]. In the matter of admiralty jurisdiction on the civil side, questions which affect only the internal order and economy of the ship are generally left to the jurisdiction of flag state. The local courts have discretion to decide whether or not to exercise jurisdiction in a case.

It has been the practice of the U.S. courts not to intervene in matters involving foreign law and affecting only foreigners on a foreign ship[20]. But the U.S. courts are ready to assume jurisdiction in cases where special circumstances warranted such interference[21]. Therefore the jurisdiction is concurrent and is a matter of discretion of coastal state to interfere or not. In civil matters, the U.K. as a coastal state is entitled to exercise jurisdiction over foreign merchant vessels or property on board ships lying in its ports[22]. Accordingly, in England the merchant shipping laws confer authority on the

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18 *The Franconia* (1876) Ex D 63 at p.82

19 Brierly, J.L.A., *The law of the Nations*, Oxford Press, 5th ed., (1955), p.194

20 *Nakken v. Fearnley and Eger* (1955) ,I.L.R. p.285

21 *The Falco*,1922A.M.C.P (1976) p.1474

22 *The Committee of Expert's Reports*, The League of Nations Documents, Doc. E 74 M 39 (1929), p.99

High Court to detain any foreign ship that caused damage to British property[23]. Hence in the *Bilbao,*[24] it was held that the High Court had jurisdiction in a case arising out of damage caused by a foreign ship in river Thames. And civil claims arising from vessel source pollution can also fall within the jurisdiction of courts. Civil claims arising from marine pollution damage caused by ships to property belonging to the government can be enforced against ships when they are present within internal waters and within India's jurisdiction.[25] The (Indian) Merchant Shipping Act, 1958 also confers power to detain such ships on port and harbour authorities, in order to allow invocation of proceedings of the ship is likely to slip out of the jurisdiction.[26] Even though the merchant shipping laws in India provides for effective enforcement in civil claims against foreign vessels, its admiralty laws constrains jurisdiction of high courts. Such a restricted view was taken by the Orissa High Court in *Reena Padhis.*[27] This case dealt with action for damages by legal representatives of a deceased mariner against the shipping company. The mariner died in an explosion inside the ship. Since the Shipping Company carried on business in Bombay, is outside the jurisdiction of the High Court of Orissa held that the court had no

[23] The Merchant Shipping Act,1894 (U.K.) , sec.688

[24] (1860) Lush.,p.149

[25] See The Merchant Shipping Act, 1958 (India), sec.443

[26] *Ibid*. sec.444

[27] *Reena Padhi v. Owners of Motor Vessel 'Jagdhir*, A.I.R. 1982 Ori.257

jurisdiction. The existing law followed for exercising admiralty jurisdiction by High Courts is also constrained by several limitations.[28]

3.1.3 Administrative Jurisdiction

All foreign ships entering internal waters of a coastal state falls within the administrative jurisdiction of coastal states and have to comply with the customs, fiscal regulations of that state. In exercise of its administrative jurisdiction any foreign ship or persons inside internal waters of a coastal state can be searched and detained if found guilty of having violated its regulations. Customs laws of various states allow power to board, search and detain foreign vessels in order to enforce its customs and sanitary regulations.[29] Port regulations also authorise authorities in ports and harbours to board, inspect and detain foreign vessels in exercise of its administrative jurisdiction. The Indian Ports Act, 1908 authorise Conservator of Ports and his assistants, if they suspect that an offence has been or is about to be committed by a foreign vessel inside port.[30] The (Indian) Merchant shipping Act prescribes measures for

[28] See The Admiralty Court Act,1861 and Colonial Courts of Admiralty Act,1890. These Acts also imposes limitations on admiralty jurisdiction of high courts. See also *Jayaswal Shipping co. v. S.S.Leelavathi,* A.I.R. 1954 Cal. p.415, *Kamalakar Mahadev Bhagat v. Scindia Steam Navigation Co. Ltd,* 1961 A.I.R. Bom. 186.

[29] The Customs and Excise Act,1952 (U.K.), The Anti Smuggling Act,1935 (U.S.) and The Sea Customs Act,1878 (India) and The customs Act,1962 gives customs authorities power to arrest and search vessels to enforce its administrative regulations.

[30] The Indian Ports Act,1908, s.15

prevention of marine pollution from ships, ensuring navigational and physical safety of ships. It also contain measures for implementing contingency planning and ISM standards can be enforced inside the ports. Foreign ships not complying with these international standards can be denied clearance and measures can also be adopted to detain them until compliance is secured. But certain inherent defects in the admiralty law in India unduly restrict the exercise of administrative jurisdiction. The power to arrest ships is one such area. These aspects are dealt separately.

3.1.4 Right of access to ports in internal waters

Ports serve as a vital link between the sea and land territory of a state. It plays a pivotal role in international carriage of hazardous substances also. Since it is a necessity for international trade, ports are presumed to be open to international maritime traffic. But international customary law does not accept such a right. The nature of territorial sovereignty and jurisdiction allows for coastal states to lay down even higher standards for entry of ships carrying hazardous substances. Furthermore the absence of obligation on coastal states to allow a place of refuge for ships inside internal waters also goes against international consensus for prevention of marine pollution. An enquiry in to the law and practice in this respect is necessary here.

Access to ports are subjected to coastal states absolute sovereignty. In recognition of coastal state's interest, the law of the sea regime is silent on the

regime of ports[31]. The existence of territorial sovereignty over internal waters and the absence of right of innocent passage through them imply the absence of customary right for ships to state's ports. The important aspect of this right is the ability of coastal state to close down its ports to protect its vital interests. A confirmation of this practice was provided in *Church v. Hubbart*[32] decided by the U.S Supreme Court approved the lawfulness of the exercise of control over ocean areas adjacent to territorial sea. The court held it reasonable for Portugal to seize a vessel on the High seas for enforcing regulations interdicting commercial intercourse by foreign vessels within Brazilian ports. The vast majority of writers in 19th century also agreed that the coastal state has full authority over access to ports and is competent to exercise it virtually to exclude entry by foreign vessels to its ports.[33] There are also opinions expressed by International Court of Justice supporting the same stand. In *Anglo – Norwegian Fisheries Case* the ICJ acted on the assumption that access to

[31] The United National Convention on the Law of the Sea,1982 provides for delineation of internal waters and Ports in Article 8-12, And UNCLOS III Art.25(2) and 211(3) provides for establishment and enforcement of port entry conditions. apart from these limited provisions UNCLOS does not provide anything. See Lindy .S. Johnson, "Coastal State Regulation of International Shipping", Oceana Publications, (2004), at p.35.

[32] 6 U.S.(2 Cranch) 187(1804)

[33] Arthur H. Dean, "The Geneva Conference on the Law of the Sea : What was accomplished," 52 *American Journal of International Law*, (N0.4) (Oct.1958), pp.607-618

[52] Jessup, "The UN Conference on the law of the sea", 59 *Columbia Law Review*, (1958), pp.234-242.

internal waters as a matter of right is not a recognised under customary international law.[34] In this case Norway had claimed to use a system of baselines for extending the territorial sea and to delimit the areas of internal waters, which would include within internal waters an area previously used for international navigation[35]. Great Britain argued that these areas was part of the territorial sea, rather than internal waters and there was a right of passage through them. Rejecting Great Britain's argument the court took the position that no such right exists in internal waters.

There is concurrence among writers of 19th century to the view that coastal state has full authority over access to ports and is competent to exercise it virtually to exclude entry of foreign vessels. [36] The question of access to ports has also been dealt under the Geneva Convention on the Regime of Maritime Ports, 1923[37]. The convention recognise subject to reciprocity, equality of treatment of vessels in foreign ports on most favoured nation basis. The preamble of the convention provides for securing freedom of commerce in ports of member states and to promote international trade and equality of treatment. Whether the regime of ports provides a right of access is doubtful. Those who support the right of access to internal waters of states view this convention as reflecting customary international law. They also refer to

[34] [1951] I..C.J Rep.116.

[35] *Id*.p.125

[36] *Supra* n.33

[37] U.N.L.S,706

Aramco Arbitration[38] where the tribunal in its obiter stated that a right of port access is provided under Article 16. But it is worthwhile to note that the convention does not prescribe right to access but only stipulate obligations of non-discrimination and equal treatment for vessels inside the ports on a reciprocal basis. The international jurists are also of the opinion that Article 16 does not explicitly deal with the right of entry but only mentions the right of coastal state to deviate from granting access to ports in cases of emergency[39]. The Institute of International Law in its Amsterdam resolution, opined that by merely stating in the preamble that 'it would be desirable that states keep their ports open to foreign vessels', and at the same time reciting in Article 2 that 'coastal states has sovereign right to deny foreign vessels entry except in cases of distress' does not indicate the presence of right of access.[40] The Report of the UNCTAD study on to port access is also of the view that states do not consider the 1923 Convention to represent existing law regarding right of entry to ports. The existence of numerous bilateral treaties of friendship, commerce and navigation that contain express provisions on port access is also evidence of the fact that there is no right of access to ports under customary international

[38] *Saudi Arabia v. Arabian American Oil Company (Aramco)* 27. I.L.R 117-145 (1963)

[39] See Churchill op.cit

[40] UN DOC.No.TD/BC.4/136 (9th September 1975),at Para77

law[41].Therefore it can be concluded that no obligation on the part of coastal states exists under international law for affording access to ports for ships in general.

The question of coastal state control over access to ports also came up for discussion at the 1958 Geneva conference on the Law of the Sea. The discussion was limited to the use of ports in a coastal state contiguous to a land-locked states. The Conference also did not directly impose an obligation on the coastal states to afford free access for ships of land –locked states. But it gave general expression to the need to have agreement between coastal and land-locked states to have access to internal waters of a coastal state[42]. In this way Law of Sea Convention, 1958 also tried to permit free access to foreign vessels at the same time preserving autonomy of coastal state by requiring land locked states to negotiate agreements to secure access to ports.

A major implication of this practice for regulation of marine pollution from ships inside ports is that coastal states authority to set conditions of entry for ships. In practice higher standards of entry have been set for ships carrying

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[41] See Elinhuz Lauterpacht (ed),C.J.Greenwood, A.G.oppenheim,and Karen Lee, *International Law Reports: Consolidated Table of Treaties,* Vol.1-125 for a list of such treaties.

[42] The Geneva Convention on the High Seas, 1958, Art.3 states that " states situated between the sea and a state having no seacoast shall by common agreement with the latter and in conformity with existing international convention accord to ships flying the flag of that state treatment equal to that accorded to their on ships or to the ships of other states as regards access to sea ports and the use of such ports".

hazardous substances by countries like the US. Inside ports coastal states enjoy extensive jurisdiction to regulate ships that enter their ports

3.1.5 Place of Refuge for Ships in Distress in Internal Waters

The right to place of refuge for ships carrying hazardous substances in ports of coastal states is another issue closely connected with right of entry. When a ship carrying hazardous substances faces a distress situation at sea, it is always advisable to seek a refuge in a place where facilities exist to unload the cargo and do repairs. The necessity of the situation makes a place inside the internal waters the best option, because of its nearness to the coast and availability of facilities. But how far the jurisdictional frame work under current international law and customary principles appreciate the need for place of refuge is thought provoking. The importance of place of refuge as a measure to prevent pollution of the seas from carriage of hazardous substances in ships, have not received attention of the international community.

Coastal states under traditional international law accepted the right of foreign ships in distress to place of refuge in their waters and provided certain immunities for such ships. Earlier treaties between states recognised the right of access to ship in distress for ships on the basis of reciprocity.[43] Several multilateral conventions also seem to refer to the right of refuge of foreign

[43] The Jay Treaty,1794 between the US and Great Britain, the US and Spain, UK–Oman, 1891 Treaty allowed vessels of member states right to enter each other's ports while being in distress. Such treaties entitled vessels to receive from local authorities all necessary aids to make them safe to proceed to the voyage.

ships. But none of these conventions create any positive obligation on coastal states to provide place of refuge. The UNCLOS, 1982 incorporates the right of refuge as an exception to the general rule that innocent passage must be continuous and expeditious. Foreign ships are allowed to stop and anchor if rendered necessary by *force majeure* or distress.[44] Nevertheless, the regime of the maritime ports agreed to provide free, equal and mutual access to ports. Yet it does not make any mention of distress situation.[45] Neither the SOLAS Convention, 1974 nor the International Convention on the Maritime Search and Rescue, 1979 both of which contain provisions on coastal state assistance in situations of distress at sea make any reference to the place of refuge.[46] The international norms that provide for co-operation on contingency planning and response also make the same wrong[47]. While there is no specific obligation cast on the coastal states to grant refuge to ships in distress under the OPRC Convention, the requirements of contingency planning involves consideration of granting refuge.[48] In a similar manner, the Intervention Convention,1969 also permit the coastal states to take such measures on the high seas as may be

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[44] See the UNCLOS Convention, 1958, Art 18(2).

[45] See the Convention on the International Regime of the Maritime Ports,*1923*, Art.2

[46] The International Convention on safety of Life at sea,1974, Chapter V and International Convention on Maritime Search and Rescue,1979, Reg.15.

[47] See the International Convention on Oil Pollution Preparedness Response and Co-operation(OPRC), (1990), Section II & III dealing with Contingency Planning and salvage.

[48] *Ibid.*

necessary to prevent mitigate and eliminate grave and imminent danger to the coastal state and its interests from pollution or threat of pollution by oil and other hazardous substances following a maritime casualty. This provision could include either permitting or ordering a ship in distress to a place of refuge. The London Dumping Convention, 1972 and MARPOL Convention, 1973 also recognise the exceptional nature of a ship in distress. They provide for the legal exceptions from the application of key provisions on safety of the human life but leaves out place of refuge. The Salvage Convention, 1989 incidentally refer to the issue.[49] However it does not contain any obligation in this regard. There is no authoritative statement of the conditions for the exercise of right of refuge under these instruments.

In the absence of clear cut norms, the substantive law on right of refuge began to develop through case law and state practices. But there is a scarcity of English decisions on the right of ships in distress. One relevant case in this regard is *The Eleanor.*[50] This case arose out of an alleged breach of legislation made in 1788[51] which stated that only ships owned and crewed by English nationals could enter British ports. *The Eleanor* owned by American national entered British port of Halifax claiming distress. In this case English court laid down the test for claiming right in distress. Since the *Eleanor* decision, the

[49] The Salvage Convention, 1989, Art.11

[50] (1809) 195 ER 1058-1068. In this case the plea of distress was made fraudulent with intent to evade legislation and hence disallowed.

[51] 28 Geo III ch.6

right of refuge is favoured only in circumstances where there is real and irresistible danger. According to the decision, the requirement of danger to lives of those on board the ship restricts the availability of refuge for humanitarian reasons than for economic reasons like for saving of cargo.[52] In 1992 the decision in *The Eleanor* was reaffirmed in *Merk and Diakimah v. The Queen*.[53] The case involved prosecution of master and crew for carrying drugs which was allegedly forced to St Helena due to lack of fuel. The Court of Appeal found the distress due to lack of fuel to be self induced by the master and the crew. The Jay treaty of 1794 allowed for refuge in bad weather. The existence of rights of ships in distress has also been addressed in American judicial decisions. But most of these decisions have been dealing with the question of immunity from local laws.[54] The necessity of distress was also issue in certain other cases.[55]

More recent practice, since 1970's shows that clear distinction has been emerging between the humanitarian right to save life and actions to save the

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[52] 165 Reprints 1058

[53] Quoted in Peter Mason, " Law in the South Atlantic" *New Law Journal,* (1992)p. 712.

[54] Daniel O'Connell, *The International Law of the Sea*, vol.2,Clarenden Press (1984)pp. 856-857

See also *The Brig Concord*, 13 US 387 (1815), *Hallet & Bowne v. Jenks*, 7 US 210 (1805) etc.

[55] See *The Experiment*, 21 US 261(1823), *The New York*,16 US 59(1818), *The Aeolus*, 16 US 392 (1818) etc.

ship. There have been several instances where place of refuge has been afforded in the interest of ensuring safety of crew, but refuge has been denied to several ships posing the threat of pollution to the environment of coastal states due to the hazardous nature of cargo carried in those ships. In 1978 the *Andros Patria*, a leaking oil tanker was refused entry by France, Portugal, Spain, and the U.K. In the same year the *Christos Bitas* was also refused entry by the U.K. The *Stanislaw Dubois,* a gas carrier damaged in a collision, was refused refuge and was eventually scuttled because no port granted refuge to it. Two high profile incidents that triggered international debate again are the *Erika* and the *Castor.* In these cases also place of refuge was denied to foreign ships by coastal states.

There are few important cases decided by courts in Netherlands in which refuge was refused to ships with hazardous cargo on board. In the latest case of *The MV Toledo*, the ship developed a leak in the hull during bad weather and was in the danger of sinking.[56] The crew were airlifted and ship was then abandoned to the salvors. The ship sought access to place of refuge in Irish port. But ship was refused access partly due to the chance of pollution to Irish coast by bunker fuel and partly due to absence of risk to human life. Finally the ship was declared constructive total loss and scuttled after it was denied refuge sought in England also. The defendant sued the Minister of Ireland for failing to give access to place of refuge to a ship in distress. The

[56] *Act Shipping (PTE.) Ltd. v. The Minister of the Marine, Ireland and the Attorney General* [1995] 2 IRLM 30-31

court laid down the established principle in this regard by making the following observation:

> "the right of a foreign vessel in serious distress to the benefit of a safe haven in the waters of an adjacent state is primarily humanitarian rather than economic. It is not an absolute right. If safety of life is not a factor, then there is a widely recognised practice among maritime states to have proper regard to their own interests and those of their citizens in deciding whether or not to accede to any such request. Where in a particular case, such as the *Toledo* there was no risk to life as the crew had abandoned the casualty before a request for refuge had been made, it seems to me that there can be no doubt that the coastal state, in the interest of defending its own interests and those of its citizens, may lawfully refuse refuge to such a casualty if there are reasonable grounds for believing that there is a significant risk of substantial harm to the state or its citizens if the casualty is given refuge and that such harm is potentially greater than that which would result if the vessel in distress and or her cargo were lost through refusal or shelter in the waters of the coastal state".[57]

There are also two other decisions rendered by courts in Netherlands that highlight the growing trend to refuse refuge to ships in distress that are in dangerous condition or are carrying environmentally hazardous cargo.

[57] *Ibid.*,48-49

Accordingly in *The Attican Unity*, the ship caught fire and sought refuge in Antwerp inside Dutch territorial waters.[58] Ship's request was disallowed. Subsequently the ship entered Dutch territorial waters and breached. On action by the ship owner, the Supreme Court upheld the right of the port state to refuse refuge considering the dangerous condition of the ship. Later in the case of *The Long Lin*, the ship involved, carrying the cargo of resin was damaged in a collision off Ramsgate.[59] The collision caused damage to its fuel tank and allowed oil to leak. The ship was allowed refuge in Dutch territorial waters subject to the condition of payment of security to cover the possible damage that may be caused to the coastal state due to the entry of ship. In this case the court affirmed the earlier decision in *The Attican Unity* in part finding that a refusal of access was permitted on the ground of sovereignty and added that under international law the respondent may not go so far as to prevent a ship which is in distress from denying entry to a place of refuge. In such a case the seriousness of the situation in which the ship finds herself should be weighed against the threat which the ship poses to the coastal state.[60] The decision in *The Long Lin* assert that the coastal state cannot refuse to grant access to the

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[58] *Netherlands v. Bergings en Transport Beddriff van dein Akker and Another,* 101 I.L.R.(1996) 436.

[59] *Guangzhou Ocean Shipping Company v. Minister of Transport, Public Works and Water Management, Council of State,* 27 *Netherlands Year Book of International Law*, Martinuss Nijhoff, (1996), 354-357.

[60] *Ibid.*

ships in distress. It also introduces the concept of balancing interests which was taken up later by the IMO in evolving guidelines.

Even though the necessity of place of refuge was addressed under several international measures, the same was less debated in international forums like IMO for long time since then. The need for reviewing contingency arrangements related to the provision of ports of refuge again gained attention during the post- *Erica* era after the major maritime casualties like *Erika*, *Prestige*, and *Castor* inside EU waters. The customary practice concerning place of refuge largely remained uncodified in the international law of the sea. In the absence of generally accepted uniform practices, there was room for conflicting interpretations given to the concept. Similarly there was no insurance available to cover risks faced by the coastal states or port authorities providing refuge under the existing framework.[61] IMO adopted resolution providing the guidelines on place of refuge for ships in need of assistance in 2003.[62] The main merit of the guidelines was the provision of financial security to cover coastal state expenses and compensation issues. The assembly of the IMO which adopted the 2003 Resolution also adopted another Resolution at the same session and introduced the concept of Maritime Assistance service (MAS). MAS intends to serve as a point of contact to co–ordinate between

[61] Leiden Aldo Chirop, *Law of the Sea and International Law Considerations for Place of Refuge for Ships in Need of Assistance,* (2006)

[62] See IMO Resolution A.949(23) dated 5th December, 2003

coastal states, salvage facilities and the ship in distress situations. But the non mandatory nature of these guidelines made its enforcement difficult.

The European community measures and efforts made at domestic level appears to be more proactive towards place of refuge. Its measures are specifically tuned to deal with distress situations involving ships carrying hazardous cargo and prevention of marine pollution arising from granting of refuge. The EU's Maritime Safety package adopted in 2005 has adopted prevention of accidents and pollution and evolving measures to deal accidents as its objectives underlying norms on place of refuge. This safety package adopted by the EU tries to modify the existing provisions on places of refuge[63]. The EU's safety package imposes responsibility on its members to plan for facilitating refuge arrangements. Member states are required to keep an inventory of places of refuge and means for assistance and combating pollution. It is also interesting to know that member states of EU have also put the directives in to actual force. More than half of its member states including the UK have also identified places of refuge along its coastline for giving refuge to ships in distress. The U.K. has also produced a database of possible places of refuge which is publicly available. Accordingly as the situation demands anywhere around the U.K.'s coasts can be a place of refuge. According to the U.K .approach each incident has its own unique, transient and varied nature and the Secretary of State Representative is authorised to direct

[63] Directive 2009/59/E , Art.29 dealt with place of refuge in EU. The said Directive entered in to force on 5th February 2004

vessels to appropriate place of refuge.[64] In U.S.A., the Captain of the port and Coast Guard authorities are authorised to allow or deny refuge to ships after assessing the risk to its coastal environment.[65] The Directorate General of Shipping in India has also issued guidelines complying with guidelines issued by the IMO in relation to place of Refuge. But all measures emphasise one thing in common the freedom for coastal states to allow or disallow place of refuge after considering risk of such a measure to its interests.

The current international legal framework addressing place of refuge reflects a shrinking of this right for foreign ships carrying hazardous substances in coastal state's waters. More and more states are denying entry to ships carrying hazardous substances in distress. This is a dangerous trend. There is need to develop a system of safe havens at national or regional level where ships in distress can take refuge and receive services without challenge to the environmental interests. Environmental concerns should necessarily mirror while prescribing for jurisdiction of coastal states in maritime zones taking in to account coastal state's duties towards protection of marine environment. The present IMO Guidelines can be considered as a welcome step in this regard. But its non mandatory nature coupled with divergence of opinion among affected interests eroded its efficacy. The failure to deal with liability and compensation also run the risk of hampering acceptance of IMO guidelines.

[64] See the Marine Safety Act, (UK) 2003

[65] See The Ports and Waterways Act,1972 , 33 USC 1221 et seq. in this regard.

3.2 Coastal State Jurisdiction over Ships for Prevention of Pollution in Territorial sea

"Territorial sea" which represent an area of waters along the state's coast adjacent to the baseline is universally recognised as a prolongation of its land territory .Over these waters coastal states jurisdiction stood recognised due to considerations of security, fiscal, political, and commercial interests. There is no dispute as to the sovereignty enjoyed by coastal state over these waters. The International Court of Justice had long back declared in the *North Sea Continental Shelf* case that a coastal state has "full sovereignty" over its territorial waters.[66] In the *Corfu Channel* case also the I.C.J. observed that under international law, the territorial sea was the "territory" of the coastal state over which it enjoyed "exclusive territorial control" and "sovereignty"[67]. This principle of customary law has later laid the basis for the regime of territorial sea under the law of the sea Conventions. Great jurists like Philip Jessup, Hans Kelson, Gerald Fitzmaurice are also of the view that territorial waters, its super ambient air, their sea bed and sub-soil falls within the control of the coastal state.[68] By the practice of nations, the theory of self preservation and protection, it is generally recognised that a state may exercise

[66] I.C.J Reports1969,p.3at para.31

[67] I.C.J Reports1969,p.4 See also *Anglo-Norwegian Fisheries Case*, I.C.J Reports1951,p.160

[68] as referred to in Chandra Sekhara Rao, *New Law on Maritime Zones*, Milind Publications, New Delhi,(1983), p.22-24

certain well defined rights of control within this area. The practice of states like the U.K., the U.S., and other Latin American states also supported the view that coastal states enjoyed sovereignty over its territorial sea. The English Court in the *Franconia* case affirmed the 'rightful jurisdiction' of the Crown over territorial waters, which were 'deemed by international law to be with in the territorial sovereignty of Her Majesty'.[69] This position has been consistently adhered to ever since and now forms the basis of the regime of territorial sea under the law of the sea.[70] But coastal states do not exercise absolute sovereignty over foreign vessels in their territorial sea. Sovereignty in the territorial sea is subject to the guarantee of the right of all ships to innocent passage. Therefore the legislative and enforcement jurisdiction of the coastal states in territorial sea is based on a delicate balance between coastal state's "creeping jurisdiction" to protect their marine environment and navigational interests of flag states[71]. This intricate balance sought to be protected in Part XII of the UNCLOS, 1982 through the right of innocent passage has been a hindrance for coastal states in exercise of its jurisdiction to safeguard vital environmental interests.

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69 *R V. Keyn* (1876), 2 Exch.D.63.

70 *Supra.* n.3 at p.64.

71 Alan Khee Jin Tan, "The Regulation of Vessel Source Marine Pollution: Reconciling the Maritime and Coastal State Interests", 1 *Singapore Journal of International and Comparative Law*, (1997), p.355.

3.2.1 The Right of Innocent Passage and Regulation of Marine Pollution

The UNCLOS confirmed the right of foreign ships to innocent passage in territorial waters of coastal states. At the same time it also established the jurisdiction of coastal states to prevent non – innocent passage. But the scheme of law in this regard lacks clarity and fails to empower the coastal states in exercising its jurisdiction to prevent marine pollution from ships inside territorial sea.

A state's control over foreign merchant ship is subject to their right of innocent passage. This right has been upheld by several international jurists before it finally it became part of customary international law. [72] But the definition and scope of innocent passage creates hurdles for coastal states jurisdiction to regulate marine pollution. It included right to 'enter and leave' territorial waters. 'Innocent passage' has been defined as navigation through the territorial sea for the purpose of traversing that sea without entering internal waters, including calling at a roadstead or port facility outside internal waters; or of proceeding to or from internal waters or call at such roadstead facility[73]. Passage, though it must be "continuous and expeditious," includes stopping and anchoring so far as they are incidental to ordinary navigation or are rendered necessary by *force majeure* or by distress, or for the purpose of

[72] Christopher Colombus, *International Law of the Sea*, Longmans green & Co., New York, (1962), p.121.

[73] The UNCLOS,1982, Art.19

rendering assistance to persons, ships or aircraft in danger or distress. Innocent passage is considered innocent as long as "it is not prejudicial to the peace, good order or security of the coastal State."[74] It also provides a list of activities that render a passage "non-innocent" These "activities' include "any act of wilful and serious pollution contrary to this Convention" and also "any other activity not having a direct bearing on passage"[75]. Since 'activities' seem that make the passage of a ship non-innocent and issues like "unseaworthiness of a ship" or the "incompetence of crew" or "threat of pollution from ships" etc., cannot be considered as an element making the passage of a ship non - innocent[76]. An actual environmental damage has to have occurred for declaring a passage as non innocent by the coastal state to be entitled to declare a passage non-innocent. Therefore possibilities for the coastal state to restrict and prevent passages which are non –innocent are limited. It is only a strict interpretation of the expression "activities" would exclude the possibility of denying the so-called "leper ships" a right of innocent passage on grounds of their poor condition, if they were not engaged in a non-innocent "activity" as listed in the UNCLOS[77]. The International Law Association Committee on Coastal state Jurisdiction has adopted a broad interpretation that allows coastal States to

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[74] *Ibid.*

[75] *Ibid.*

[76] Benedicte Sage, "Precautionary Coastal Jurisdiction", 37 *Ocean Development & International Law*, (2006), P.363

[77] *Ibid.*

consider ships whose condition is "so deplorable that it is extremely likely to cause a serious incident with major harmful consequences, including to the marine environment" as not being entitled to claim the right of innocent passage[78]. This must not be confused with ships in distress.

Another issue related to the concept of innocent passage for exercise of coastal state jurisdiction is the inability the phrase "prejudicial to the peace, good order or security of the coastal State" to address carriage of ultra hazardous substances. The maritime transport of these substances has always been objected by states[79]. A broad and judicious interpretation of this phrase can be used to empower the coastal states with jurisdiction at least to ensure its safe carriage. This is with reference to the associated protective measures adopted by Australia and New Papa guinea in *Torres Strait* by imposing compulsory pilotage. Despite acceptance by the NAV Sub- Committee that the proposed measure of compulsory pilotage as "operationally feasible and largely proportionate to provide protection to marine environment", the MEPC did not accept its adoption by Australia and Papua New Guinea. Instead it

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[78] Report of the Committee on Coastal State Jurisdiction Relating to Marine Pollution , International Law Association, London, (2000), 443–460

23 See J. Van Dyke, "The Legal Regime Governing Sea Transport of Ultra hazardous Radioactive Materials," 33 *Ocean Development and International Law*,(2002),pp. 78–80,

[79] J. Van Dyke, "Applying the Precautionary Principle to Ocean Shipments of Radioactive Materials," 27 *Ocean Development and International Law* (1996), pp. 379–397.

merely recommended the flag states to encourage ships under their flag to abide by the compulsory pilotage inside Torres Strait. The approach of IMO itself serve as an example of overriding urge on the part of international community to uphold traditional right of freedom of navigation, undermining jurisdictional concerns of coastal state to protect its marine environment from carriage of ultra hazardous cargo.

While the coastal state has restricted possibilities to declare a passage non-innocent and therefore to prevent it, a coastal State has powers to regulate passage that is considered as innocent[80]. But the regulatory jurisdiction is subject to limitation that coastal states may require foreign ships only to conform to construction, design, equipment, and manning (CDEM) standards that are "giving effect to generally accepted international rules or standards".[81] In other words, coastal states may adopt only internationally set CDEM standards for vessels sailing in their territorial sea, and cannot impose their own standards. Therefore a coastal state is entitled to take necessary measures to prevent a passage that is not innocent. But the existing regulations lacks clarity to enable coastal states in establishing the non-innocent character of such a passage.

The enforcement jurisdiction of coastal states in territorial sea may be classified under the following heads.

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[80] UNCLOS,1982,Art.21

[81] *Ibid* Art.21(4)

3.2.2 Jurisdiction of Coastal State to Prevent Non-innocent Passage

The right of a coastal state to prevent passage of a foreign vessel is an essential attribute of its territorial sovereignty. Vessel that engage in non-innocent passage do not benefit from the rules that protect them from applicability of coastal states regulations[82]. In such circumstances territorial jurisdiction of coastal states override the right of innocent passage of foreign vessels. The passage of a vessel inside territorial sea will be considered as non innocent if it is prejudicial to the peace, good order or security of the coastal state or if the passage defies UNCLOS or any other established rule of international law. Viewed from the perspective of ships involved in transboundary movement of hazardous substances, ships engaged in "any act of willful and serious pollution" is considered as prejudicial to the peace, good order or security of the coastal state.[83] A case of pollution that is willful and serious is also rare to happen. Therefore it appears that UNCLOS appears to be contemplating intentional pollution discharges from ships and not purely accidental. This limits the interference of coastal states to serious pollution incidents and thereby tries to ensure uninterrupted passage for foreign

[82] Lindsay Johnson, *Coastal State Regulation of International Shipping*, Oceana Publications, (2004), p.63.

[83] Art.19(1)

vessels.[84] Another restriction on the coastal state jurisdiction is the inability of coastal state to prevent passage of ships carrying cargo that pose high risk to the marine environment of coastal states. Since passage of such vessels *per se* cannot be considered non-innocent, coastal states cannot prevent its passage through territorial waters. Coastal states are only entitled to require them to carry documents sand observe internationally accepted precautions. If a vessel engages in any activity not having any direct bearing on it including act of pollution the ship's passage through territorial sea may not be rendered non-innocent. The coastal state can initiate 'necessary measures' to prevent pollution from vessels whose passage is declared non –innocent. But what constitute necessary measures? Here again, UNCLOS does not provide a clear answer. Is there is a right for coastal state to deny entry or expel a vessel from its territorial sea? But if a vessel is found incontestably in violation of generally accepted international pollution standards or does not observe precautionary measures coastal state may be allowed to deny entry or expel such a vessel as a necessary measure to prevent pollution of its marine environment.[85]The

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[84] D.Dzi Dzomu and M.Tsameyi, "Enhancing International Control of Vessel Source Pollution under the Law of the Sea Convention,1982 : A Reassessment" *University of Tasmania Law Review,* (1991), p.282

[85] R.Churchill and A.V. Lowe, *The law of the Sea,* 3rd Ed., Manchester University Press, Manchester, (1999), p.87

Kari Hakappa, Erik Franckz and Erik Jaap Molenaar, 'Final Report of the Committee on Coastal State Jurisdiction Relating to Marine Pollution', paper presented at International Law Association Conference, London, 25 July 2000 p.55 also support same view.

coastal state may also temporarily close entry to its territorial waters to prevent non-innocent passage. But such a measure is allowed under the UNCLOS in the interest of "security".[86] However such temporary suspension may be allowed as a measure to prevent pollution from the ships also.

3.2.3 Coastal states jurisdiction to undertake physical inspection and other proceedings.

The most important enforcement mechanism available to the coastal state for violation of internationally applicable standards for prevention, reduction and elimination o f pollution from ships is the physical inspection of the vessel. Here again the requirement of "clear grounds", "prima facie evidence", "substantial evidence" and "serious and willful pollution" in the absence of clear cut guidelines and definitions have resulted in differing state practices.[87]

3.2.4 Coastal states jurisdiction to monitor the risk of pollution to the marine environment and to notify affected states.

When a coastal states "becomes aware of cases in which the marine environment is in imminent danger of being damaged by pollution", it must

[86] See UNCLOS,1982,Art.25(3) states that coastal states may " without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of it security".

[87] See UNCLOS,1982,Art.220(2),226(1) and also Benedicte Sage, "Precautionary Coastal State Jurisdiction" 37 *Ocean Development and International Law*,(2006), p.370

notify those states likely to be affected by such damage as well as the competent international organisation, the IMO.[88] States should also notify other states information regarding maritime casualties caused by collision, stranding, other incidents of navigation which may cause imminent or actual pollution damage to the marine environment.[89] Further where marine environment is in imminent danger of being damaged by pollution coastal states must also by itself and by co-operating with other states and IMO take measures to eliminate the effects of pollution, prevent and minimise the damage.[90]

Therefore under the UNCLOS III, coastal states are authorised to exercise criminal jurisdiction on board a foreign ship passing through its territorial sea to arrest any person or conduct any investigation in connection with any crime committed on board the ship if it relate to violation involving serious and willful act of pollution. Civil jurisdiction on board a foreign vessel inside territorial waters may be resorted to in relation to maritime claims for pollution damage. But in actual practice, the limitations placed on the coastal states civil and criminal jurisdiction establish that even in territorial sea, coastal states jurisdiction to prevent pollution from ships carrying hazardous substances is limited to temporarily interfering with vessel's navigation.

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88 UNCLOS,1982,Art.198,&211(7)

89 *Ibid*,Art.221(2)

90 *Ibid* Art.199 See also Aldo Chirop, "Ships in Distress, Environmental Threats to Coastal States and Places of Refuge: New Directions for an Ancient Regime?" 33 *Ocean Development and International Law*, (2002), p.27

Coastal states may also incur liability if it fails to produce convincing evidence of non-innocent passage before enforcement action is resorted to. Therefore in territorial sea the existing international law requires the coastal state to be more cautious before it resorts to enforcement action against erring vessels.

3.3 Coastal State Jurisdiction to Prevent Pollution in Archipelagic Waters and Straits

An Archipelago is a group of islands. It has been defined as a "group of islands including part of islands, interconnecting waters and other natural features which are so closely inter related that such islands form an intrinsic geographical, economic and political entity or which historically has been regarded as such."[91] An archipelagic state is a state constituted wholly by one or more archipelagos and include other islands.[92] Such states may draw straight archipelagic baselines joining the outermost points of its islands from which the breadth of other maritime zones are measured.[93]The creation of archipelagic states especially mid- ocean states, led to claims by these states over water within islands as internal waters through which several international sea routes lie. Hence the main task of the regime for archipelagic states under the UNCLOS, 1982 is reconciliation of archipelagic states with the needs of

[91] *Supra* N.88, Art.46.

[92] *Ibid*,Art.47

[93] *Ibid*

international communications by sea, at same time safeguarding the interests of coastal states in prevention of pollution of it waters.[94]

The sovereignty of an archipelagic state extends to the waters enclosed by these states. Accordingly, an archipelagic state may designate sea lanes suitable for the continuous and expeditious passage of foreign ships through its archipelagic waters and the adjacent territorial sea. If an archipelagic state does not designate Sea lanes, routes normally used for international navigation shall have same effect as archipelagic sea lanes designated by the state. Within the Archipelagic waters the foreign vessel enjoy right of Innocent Passage. But within designated Archipelagic Sea lanes right of passage can not be suspended by the archipelagic state. Foreign vessels have a right to exercise passage which is continuous, expeditious and unobstructed between a part of the High seas or EEZ and another part of the High Seas or EEZ. Under the UNCLOS ,1982, foreign vessels enjoy right of transit passage, unimpeded, through straits used for international navigation , the transit passage of vessels must be solely for the purpose of continuous and expeditious transit of the strait between on part of the high seas or EEZ and another part of the High seas or EEZ. Archipelagic states have jurisdiction to adopt laws and regulations for the prevention, reduction and control of pollution by giving effect to internationally accepted standards. Such laws should not have the effect of

[94] See Statement of the U.S Delegation to the UN Conference on the law of the sea,11 March, 1958, Official records,Vol.III,P.25

denying, hampering, or impairing the right of archipelagic sea lane passage in archipelagic waters.

The jurisdiction of coastal state to adopt laws and regulations relating to archipelagic sea lane Passage equally apply to the framework of transit passage in straits used for international navigation.[95] Even though international straits play a key role in uninterrupted navigation, the risk of marine pollution poses a major threat to marine environment of coastal states.

There is no explicit reference in UNCLOS, 1982 to enforcement jurisdiction of coastal states in Archipelagic Sea Lanes.[96] The reference to Archipelagic Sea lane passage to the framework of transit passage in straits does not link it to safeguards with regard to use of straits in international navigation. It may be due to an oversight. Hence it can be argued that enforcement action of coastal state for violation of pollution regulations for straits apply for archipelagic sea lane passage also.[97]Accordingly if a vessel commits a violation of laws and regulations referred to n the law of the sea convention, causing or threatening to cause damage to marine environment in

[95] Article 54 states that Article 39, 40,42 and 44 apply mutatis mutandis to ASL Passage.

[96] UNCLOS,Art.233, Article 42 deals with enforcement of law mad by coastal states in relation to transit passage in straits . Since Art.54 applies in relation to straits to archipelagic passage, Art. 42 may also be taken to apply to archipelagic passage.

[97] Erik Jaap Molenaar, *Coastal State Jurisdiction over Vessel Source Pollution*, Kluwer Law International, the Hague,(1998), p.345

Archipelagic waters, coastal state can take appropriate measures.[98]In archipelagic waters, enforcement jurisdiction has several constraints. The arrest of vessels is possible only if violation causes major threat of pollution. Furthermore the enforcement jurisdiction does not also take care of the specific environmental and ecological concerns of the archipelagic state. There is lack of concern for risk of marine pollution to archipelagic waters from carriage of dangerous, hazardous and noxious substances. Considering the lack of expertise and resources of archipelagic states to deal with drastic maritime casualties pursuant to carriage of dangerous and HNS substances, it is better to allow these states to limit their carriage through archipelagic waters.[99]

3.4 Jurisdiction to control marine pollution from ships under Indian Law

The real impetus to exercise jurisdiction over the maritime zones of India occurred only after the UN Conference on the Human Environment was held at Stockholm in 1972. Prior to that, India placed claims over territorial waters recognised under customary international law. But the uncertainty caused by the varied claims made by different nations made adoption of

98 See UNCLOS,1982,Art.233

99 See Mohamed Munavvur, *Ocean states: Archipelagic Regime in the Law of the Sea*, Martinus Nijhoff Publishers, Boston,(1993),pp.188-189 and also Mary George, "Transit Passage and Pollution Control in Straits under the 1982 Law of the Sea Convention" , 32 *Ocean Development and International Law*, (2002), p.189

national laws difficult. The influence of the declaration made at the Stockholm Conference gave constitutional status to environmental concerns by incorporating environmental protection as a fundamental duty under the Constitution of India.[100]It was also accepted as directive principle in Part –IV of the Constitution.[101] In accordance with the developments that took place at international level under the UNCLOS, 1982 framework, the government of India, also made efforts to extend its jurisdiction over newly formed maritime zones. Among such efforts the most important was the amendment made to redefine the offshore limits of India to include 'all lands, minerals, and other things of value underlying the ocean within the territorial waters, or the continental shelf, or the EEZ of India."[102] Thereafter the Maritime Zones Act, 1976 was enacted which provided an umbrella legislation to lay down the broad parameters of jurisdiction vested in the government of India for protection and prevention of pollution in its maritime zones. The vesting of jurisdiction within the maritime zones especially prescriptive and enforcement jurisdiction even though follow the broad framework established by UNCLOS, 1982 scheme, Indian law has also made certain deviations in an urge to protect its interests over maritime zones.[103]The assumption of

[100] See The Constitution of India, Art.51A(g)

[101] *Ibid*, Art.48-A.

[102] *Ibid*, Art.297 (1), 40th Amendment, 1976.

[103] See *Captain Subash Kumar v. Principal Officer, Mercantile Marine Department,* 1991 S.C.R. (1) 742. It is an important case decided by the Indian Supreme Court

jurisdiction also suffers due to inherent defects of Indian admiralty law. There is no comprehensive legislation to deal with admiralty jurisdiction in India. The administrative framework for dealing with merchant shipping that falls with in the competence of several ministries has also added to the multiplicity and overlapping of law for exercise of jurisdiction.[104]

The territorial sovereignty of India extends to its internal waters and the Government of India has invoked its jurisdiction with respect to criminal, civil, and administrative matters inside these waters. Penal laws like Indian Penal Code and Criminal Procedure Code extend to India's internal waters and allow the exercise of criminal jurisdiction over ships, and other subjects within these waters. Inside the ports, the Indian Ports Act, 1906 and the Major Port Trusts Act, 1963 provides for jurisdiction to prescribe and enforce standards to prevent pollution from ships carrying hazardous substances inside ports. These regulations have adopted rules incorporating internationally accepted norms for prevention of pollution from ships prescribed by the MARPOL Convention.[105]

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wherein flag state jurisdiction of ships over casualties occurring in high seas was strongly supported by the court.

[104] Ministry of Shipping is responsible for prescribing regulations applicable to ports, and maritime zones. Coast Guard which is attached to Ministry of Defence is responsible for enforcement of marine pollution prevention norms in maritime zones. Protection of marine biodiversity, prevention of pollution from carriage of Hazardous Waste falls within competence of Ministry of Environment and Forests. Conservation of fisheries again falls under the Ministry of Agriculture and Animal Husbandry.

[105] See Major Port (Prevention and Control of Pollution) Rules, 1991 adopted under the Major Port Trusts Act, 1968.

In the case of 'damage done by the ship' to facilities inside the ports, port authorities can assess the damage caused to the property of the port and initiate measures to recover the same from the ship owners[106]. In *Luga Bay Shipping Corporation& South India Corporation v. The Board of Trustees of the Port of Cochin & Another*, the assessment and recovery of damage done to the berth inside the port was upheld by the Supreme Court.[107]Accordingly it was held that Section 123 of Major Port Trusts Act, 1968 which empowers the Board of Trustees to make regulations for ensuring safety inside ports includes the power to prescribe for remedies in the event of damage done by the ships. Pollution damage done by the ships can also be recovered by port authorities. And Port clearance may not be granted to vessels until the amount of damages or compensation due to the ports has not been paid. Port regulations also empower the Conservator of the Port to detain the ship and arrange for the sale of vessel in the event of nonpayment of compensation. This is in addition to the provision for institution of a civil suit when the proceeds of sale of the property of the vessels were insufficient to meet the penalties payable or recoverable by the port authorities.[108] The territorial waters of India also partakes the character of territory of India. The Supreme Court of India[109] and the Law Commission

[106] See Notification dated January 27, 1998 issued in exercise of Sec 48, 49,&50 of Major Port Trusts Act,1968.

[107] (1997) 1 S.C.C. 631-640

[108] Major port Trusts Act, 1968, Sec.131

[109] *B.K Wadeyar v. M/s Daulat Ram Rameswarlal*, A.I.R 1961.S.C.311 at p.314

of India[110] have expressed the view that territory of India includes its territorial waters. As early as 1871, the British Indian Courts have held that criminal and civil jurisdiction extends to offences committed over the territorial waters.[111] Indian fisheries laws have been applied over these waters. The relevant Indian laws like the Merchant Shipping Act, 1958 and the Customs Act, 1962 define territory of India to include its territorial waters.

Arrest of vessels for enforcing maritime claims is an effective method for enforcing claims for pollution damage occurring inside Indian waters. But jurisdiction of courts to arrest ships in respect of maritime claims is another area where Indian law is vulnerable. Arrests of ships which serves the purpose of assuming jurisdiction, obtaining security for satisfaction of maritime claims and facilitate execution of decree against vessels is a potent weapon to protect lawful claims. But in the hands of unscrupulous persons this weapon can become a means to pressurise the ship owners to illegal and unjustified demands. Unfortunately, the law relating to ship arrests as it exist under the Merchant shipping Act, 1958 overlooks the internationally recognised safeguards to prevent illegal arrests. The conventions for arrest of foreign vessels have been codified under the International Convention on Arrest of Sea –going Ships, 1952 and 1999. But India has not become a party to both the conventions. This has attracted intervention by the Supreme Court in cases

[110] Report of the Law Commission of India, No.41,Vol.1, (1969), p.4

[111] See *Reg v. Kastya Ram,* Bombay High court Law Reports, Vol.187, p. 63, *Baban Mayacha v. Nagu Shravucha and Others,* I..L.R. Bom. series Vol.II (1878) p.19

concerning claims against damage 'done by the ship', though not directly dealing with marine pollution from ships. Under the Indian law, arrest of vessel and its release is governed by the provisions of the Merchants Shipping Act, 1958 which states that arrested vessel can be released only upon furnishing security of entire claim of the plaintiffs together with costs.[112]The application of this provision has come into conflict with its counterpart under the Arrest Convention, 1999[113] which states that the amount of security shall not exceed the value of arrested ship. The issue whether Arrest Convention can be applied to India despite India's non ratification was addressed by the decisions of Apex court in *M.V.Elizabeth*[114] and *M.V.Sea Success.*[115] The issue was put to rest by the court holding that the principles underlying these conventions are the result of international unification and development of the maritime laws of the world. They can, therefore, be regarded as the international common law or transnational law rooted in and evolved out of the general principles of national laws, which, in the absence of specific statutory provisions, can be adopted and adapted by courts to supplement and complement national statutes on the subject. The non ratification of Arrest Convention cannot be a reason for its non application to India[116]. Even after the Supreme Court's clarification

[112] Merchant Shipping Act, 1958, s.443.

[113] International Convention on the Arrest of Sea-Going Ships, 1999,Art.4(2) and Art (5).

[114] (1993) Supp. (2) S.C.C. 433

[115] (2004) 9 S.C.C. 512

[116] There are also decisions like *J.S. Ocean Liner LLC v. M.V. Golden Progress & Anr*., 2007(2)ARBLR104 Bom, holding same view.

regarding the applicability of Arrest Convention to India, few cases have raised the issue of its compatibility with provisions in the Merchant Shipping Act, 1958. In *M.V.Nordlake v. Ori,*[117] it was alleged before the Bombay High Court that the principle underlying the Arrest Convention allowing the owner to give security limited to the value of the vessel in order to release vessel arrested was conflicting with section 443, of the MSA, 1958 dealing with same issue. The court held in this case that there is no conflict between the provisions in the MSA, 1958 and the Arrest Convention. The reason for the confusion is due to the fact that 1999 Convention contemplates a situation where the value of the vessels is less than plaintiff's claim. The Convention in clear terms provides that in such a case, the security to be provided will be lower of the two amounts i.e., the security will be the value of the arrested vehicle. On the other hand Section 443(1) of the M.S. Act does not contemplate any such situation and merely provides that the High Court which has ordered arrest of the ship at the instance of the plaintiff (whose property has been damaged by the defendant ship) will indicate the security which the owner of the defendant ship

[117] Report of case available at *http://www.indiankannon.org/doc/10842740* In this case the appeal was moved by the vessel, *MV.Nordlake,* which was arrested in an admiralty suit made against it in respect of a collision damage caused to *INS Vindhyagiri*, an Indian Navy Ship. The collision occurred near Sunk Rock Light House, Bombay. The appellant sought a motion to limit the liability for collision damage to the value of the vessel and its release by furnishing of security. The plea was rejected by the admiralty court. Hence the main issue before the appellate court was 'Whether the owner of the arrested vessel is bound to give security in excess of the value of the vessel?'

has to give to the satisfaction of the High Court. The words "to pay all costs and damages that may be awarded in any legal proceedings that may be instituted in respect of the damage" merely contemplates the maximum amount for which the High Court will ask the defendant to give security. There is nothing in the Act which indicates that the Legislature had contemplated a situation where value of the arrested ship was less or substantially less than the plaintiff's claim in the admiralty suit. Similar issues are bound to occur in the enforcement of maritime claims arising out of pollution damage caused by ships engaged in transboundary movement of hazardous substances also. Hence it would be better if measures are taken by the Parliament to harmonise provisions of the MSA, 1958 to make it in tune with international convention.

Another major problem with exercise of admiralty jurisdiction is the absence of a comprehensive legislation dealing with nature and extent of admiralty jurisdiction in India. This lacuna was the main concern in *M.V.Elizabeth Case*[118] decided by the Apex Court of India. The law that presently govern admiralty jurisdiction in India can be traced to the Colonial Courts of Admiralty Act, 1890 and 1891 which conferred Admiralty Jurisdiction including the power to arrest and detain a vessel, on the Chartered High Courts of erstwhile British India. After independence no efforts were made to make changes to admiralty laws in India. This legislative lacunae was sought to be plugged to a certain extent by Justice Kochu Thommen, in the

[118] *M.V.Elizabeth v. Harwan Investment and Trading Pvt.Ltd, Goa*, A.I.R1993 SC 1014

celebrated decision *M.V. Elizabeth* by holding that all High Courts in India being superior courts of record possess inherent admiralty jurisdiction.[119] By virtue of this decision, the High Court of Kerala became entitled to possess admiralty jurisdiction over vessels situated within its territorial limits. Though this decision tend to fill the gaps in the substantive law, the lack of procedural rules create hurdles for the proper exercise of admiralty jurisdiction. Unlike chartered high courts of Mumbai, Calcutta and Chennai, other High Courts like the Kerala High Court have not evolved rules to deal with procedural aspects of exercising admiralty jurisdiction. In the absence of such rules applications for arrest of ships are made by way of Writ and no safeguard exist to prevent frivolous petitions for arrest of ships and avoid lengthy procedure.

But the recent decision of the Kerala High Court in the *M.V.Free Neptune* has altered the long followed procedure for invocation of admiralty jurisdiction.[120] The Court considering the absence of statutes, rules or any other

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[119] *Id.*,

[120] *MV Free Neptune v. D.L.F. Southern Towns Pvt. Ltd.*, 2011 (1) K.L.T. 904. The case involved arrest of *MV.Free Neptune* by the High Court of Kerala, while she was berthed in the Port of Chennai, State of Tamil Nadu, in a motion alleging short landing of cargo at Cochin. The vessel thus situated beyond the territorial limits of the High Court of Kerala was arrested by a single judge of the Hon'ble High Court vide an interim Order. The said Interim Order also provided for release of the vessel upon furnishing stipulated security, which was duly furnished by the vessel and release was obtained. Subsequent thereto, the alleged short landed cargo which had been discharged in Chennai was transported to Cochin and the vessel moved for return of the security already furnished. The Learned Single judge refused to

instrument known to law structuring the admiralty jurisdiction of the High Court of Kerala thought it fit to settle the ambit of the admiralty jurisdiction and the procedure to be followed. In the absence of procedural rules dealing with admiralty jurisdiction court declared that suits invoking admiralty jurisdiction shall be instituted as suits in accordance with the procedure contemplated under the Code of Civil Procedure, 1908. But the decision has invoked serious criticism also. The main criticism levelled against the decision was that it overlooked the long established position prescribing limitations on jurisdiction according to territorial limits for exercise of admiralty jurisdiction by courts in India. The earlier decisions of Kerala High Court itself lend support to this. In *Ocean Lanka Shipping Co (Pvt.) Ltd. v. MV Janate*, the Kerala High Court refused a motion to arrest the ship then lying in the Port of Chennai holding it as beyond the its territorial jurisdiction.[121] Decisions like *Reena Padhi v. Owners of Motor Vessel Jagdhir*,[122] and *Shipping Fund Development Committee v. M.V. Charisma*,[123] ties the jurisdiction of High Courts to the limits of particular courts appellate jurisdiction. In addition to the issue of exceeding jurisdiction beyond its territorial limits the decision has also

order return of security. An amendment motion and a prayer for impleading additional parties were duly allowed by the Learned Single Judge. Appeals were preferred before the Hon'ble Division Bench against the orders of the Learned Single Judge by concerned interests.

[121] See 1997 (1) K.L.T. 369

[122] A.I.R. 1982 Ori. 57

[123] A.I.R. 1981 Bom. 42

been criticised severely. This is because determining jurisdictional issues in maritime cases by applying Civil Procedure Code will only drive the claimants to the protracted civil trial and deprive them of the benefits of special maritime arrest jurisdiction.

The problem with lack of clear law to guide admiralty jurisdiction still exist in India. The recommendations made by several committees and commissions all remain in paper. The First Law Commission in its fifth report had recommended the immediate reform of laws governing exercise of admiralty jurisdiction in India. The Parveen Singh Committee appointed to study this issue in 1986 also found dissatisfaction with the existing laws and need for framing new legislation and separate courts to deal exclusively with admiralty matters. Further the 151st Report of the Law Commission made in 1995 pointed out to the deficiencies with the existing regulations. Following these reports and concerns from maritime industry, introduced the Admiralty Bill was introduced in the parliament in 2005. But it has not till now received the assent of the parliament.

3.5 Conclusion

An analysis of the prescriptive and enforcement jurisdiction of coastal states inside its internal waters and territorial sea show that the law relating to the prevention of marine pollution from ships carrying hazardous substances is not satisfactory. The law of the sea convention, 1982 addressing these aspects gave unnecessary emphasis to maintain a delicate balance between the coastal

states interests in protecting its marine environment and flag states interests in establishing navigation freedom for their vessels. In attaining this balance, the international community has lost sight of the need for a regulatory framework that effectively prevent pollution from ships.

Coastal states jurisdiction based on the principle of territorial sovereignty, has led to the absence of navigational rights and right of access to ports in internal waters. But the legal status of internal waters and its regime has not fared well. The absence of duty on part of coastal states under the current regime to provide a place of refuge inside its ports and internal waters is a major lacuna. Considering the role assumed by place of refuge in averting pollution that result from major casualties involving ships carrying hazardous substances, it is highly essential to incorporate provisions in this regard. The attribution of such duties may not be considered as derogation from territorial sovereignty of coastal states in internal waters. This is for the interest of international consensus for prevention of pollution from ships. The absence of right of access to ports and the impact of denial of access to ships by stipulating higher standards for ships hazardous substances is also a matter of concern.

Coastal states jurisdiction to prevent the pollution from ships in territorial waters, archipelagic waters and straits is also subject to several limitations. There are several deficiencies with the regime of innocent passage that provides the touch stone for exercise of coastal states jurisdiction to prevent pollution from ships in the territorial sea. Lack of proper guidelines as

to what constitute 'serious and willful pollution' limits interference by coastal states to major pollution incidents. The effect of these provisions has also eroded the effective enforcement of pollution standards in territorial waters. Further the existence of notification of pollution incidents affecting coastal states to flag states and IMO along with the imposition of liability has now a days made coastal states more cautious in invoking its jurisdiction. Indian law extending jurisdiction over territorial waters also follows the UNCLOS framework and contain same defects. The drawbacks of Indian admiralty law, if left unattended will hinder effective exercise of enforcement jurisdiction.

Chapter -4

PREVENTION OF POLLUTION FROM SHIPS IN CONTIGUOUS ZONE, EEZ AND HIGH SEA

The jurisdiction of coastal states to prevent pollution of the marine environment of the contiguous zone, EEZ and high seas is an area of special interest. The juridical nature of the Contiguous zone respects special jurisdictional interests of coastal states in this area. This necessitates a critical study in to this concept, focusing on the jurisdiction of coastal states for prevention of pollution from ships. The law of the sea recognise a separate legal frame work for the EEZ and the high seas.

The coastal states jurisdiction over EEZ is based on the principle of "quasi territoriality"[1] and allows the coastal states to exercise sovereign rights for enjoyment of its economic resources, protection of marine environment and prevention of pollution. The high seas character of its waters guarantees navigational freedom for foreign ships. This act as a major constraint on the exercise of jurisdiction to prevent marine pollution from ships in the EEZ. Within the EEZ, to what extent the presence of 'oceanographical and

[1] Erik Jaap Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* Kluwer Law International, the Hague, (1998), p.79

ecological reasons' afford special jurisdiction to coastal states to prevent pollution. This is of great importance.

The regime of the high seas established under the customary international law provides for exclusive competence of flag state both in regard to prescriptive and enforcement jurisdiction. The coastal state jurisdiction to invoke interventionist measures during maritime casualties posing threat of pollution to its interests appears to be very limited.

The adequacy of mechanism established under the international law for ensuring an effective control of pollution from transboundary movement of hazardous substances in ships through contiguous Zone, EEZ and High seas deserves a critical study. The nature of jurisdiction established through UNCLOS frame work and other pollution specific measures initiated under the auspices of IMO and exercised by coastal and flag states needs critical examination. So the study enquires how far restrictions on the coastal states to secure navigational freedom of foreign vessels act as a barrier to protect the marine environment.

4.1 Contiguous Zone and Prevention of Pollution from Ships

The contiguous zone is a zone of sea contiguous to and beyond the territorial sea, in which the coastal states have limited powers for enforcement of customs, fiscal, sanitary and immigration laws.[2] The juridical nature of this area of sea is quite distinct from that of territorial sea. Unlike territorial sea

[2] O.P.Sharma, *The International Law of the Sea,* Oxford University Press, New Delhi,(2004), at p.104

coastal state cannot exercise full sovereignty but only certain power to safeguard certain specific interests recognised under international law. The reason for this different juridical nature is that whereas the territorial sea, like the internal waters, forms an integral part of the territory of the coastal state, contiguous zone is governed by the principle of freedom of the seas. The need for a zone contiguous to the territorial sea to assert jurisdiction to prevent smuggling activities was explicit in state practices of the U.K. and the U.S. since the beginning of the 18 century. The Hovering Acts passed in England in 1736 provided for the power to prevent illicit trading with certain cargos, and enforcing fiscal regulations along parts of oceans adjoining their shore[3]. Following this, the US also passed legislations enabling enforcement of it fiscal regulations. The fundamental policy underlying claims of jurisdiction over the Contiguous zone was also interpreted by the US Supreme Court in *Church v. Hubbart*[4]. This case for the first time recognised the validity of Portugal's claim to exercise authority on the zone contiguous to high seas, to protect the commercial interests in the colony of Brazil. The decision asserted that the power of a state to secure itself from injury beyond the limits of its territory, provided its exercise would be 'reasonable and necessary to secure their laws from violation.[5] In *United States v. Luisiana* et. al[6], also the U.S. Supreme

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3 J.H.Brierly, *The law of the Nations*, Oxford Press, London, (1955)p.205.

4 6 U.S.(2 Cranch) 187 Reported in the Kenneth R.Simmonds, Cases on the Law of the Sea, Vol.1.Oceana Publications, U.S.A., (1976), at p.32

5 *Ibid*.p.234

Court referred to the existence of state practice in extending the jurisdiction to adjacent sea for various purposes like control smuggling, and enforcing sanitary regulations . At the 1930 Hague Codification Conference, one of the key issues addressed was the concept of contiguous zone and the nature of coastal states rights inside the zone. The conference failed to arrive at a consensus. However, the International Law Commission which discussed about the purpose of the contiguous zone in 1948, streamlined the concept and confined the authority of the coastal states in such a zone, to protect the customs and fiscal interests of coastal state[7]. The commission also recognised the need for sanitary regulations in view of the connection between customs and sanitary norms. But protection of 'security interests' of coastal states as mooted by India, Pakisthan, and Honduras was not allowed since it was feared that would open the way for abuse due to vagueness attached to it.

States like the UK, Belgium, and France started asserting similar claims. Finally the UNCLOS, 1958 recognised the concept of contiguous zone and enhanced the power of coastal state to prevent and punish the infringement of its "customs, fiscal, immigration and sanitary regulations" within this zone[8]. UNCLOS ,1958 also laid down that such a zone does not extend beyond 12 miles from the baseline from which the breadth of the territorial sea is

6 4L. ed.2d. 1025

7 *Supra*. n. 27

8 UNCLOS, 1958, Art.24

measured[9].The UNCLOS,1982 has also maintained the concept of contiguous zone with slight modifications. The notable change is that it does not portray contiguous zone as part of the high seas.[10] So as far as prescriptive jurisdiction of coastal state is concerned any law and regulations adopted to regulate contiguous zone must be directed at preventing infringement of customs, fiscal, immigration and sanitary law. Jurisdiction of coastal state inside contiguous zone is specifically related to preventing infringement of its customs, fiscal, immigration and sanitary regulations over ships involved in inward and outward movement. In state practice, Jurisdiction inside this zone does not appear to confer on the coastal state extended operation of its laws. Naval forces of the coastal states have been found to exercise jurisdiction over ships violating its fiscal, immigration laws by interdicting the vessels and towing them beyond the EEZ. A reference may also be made in this context to landmark decision of the US district court regarding *Taiyo Maru*, a Japanese fishing vessel found violating prohibition of fishing within the US's then Contiguous zone.[11] The Court upheld the right of hot pursuit commenced from its contiguous zone for violation of its fishing rights, and rejected the argument that the four purposes for which such a zone may be created under the Geneva Convention were exclusive.

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9 *Ibid.*

10 UNCLOS, 1982, Art.33.

11 Dan Odbanu, "Hot Pursuit from a Fisheries Zone : A Further Comment on U.S v. Taiyo Maru No.28", 70 *American Journal Of International Law*, p.549.

The concept of contiguous zone under UNCLOS, 1982 and national legislations implementing them, lacks clarity about coastal state's jurisdiction for protection and preservation of marine environment. The discussion about the concept of Contiguous Zone shows that the nature of jurisdiction allowed for the coastal state does not accept prescriptive jurisdiction to prevent pollution from ships carrying hazardous substances. Practice of states like the U.S. reflects the coastal states extending jurisdiction for protection of interests far above those recognised by the UNCLOS III. It appears that jurisdiction for protection of marine environment and enforcement of pollution norms lack clarity. Under the UNCLOS the jurisdiction allowed within EEZ for prevention of pollution is available in contiguous zone also. But in practice it has been found insufficient. Therefore it is suggested that jurisdiction granted within Territorial Sea may be extended to Contiguous Zone for prevention of pollution and enforcement of such norms.

4.2 Exclusive Economic Zone and Jurisdiction of Coastal State to Prevent Pollution from Ships

The jurisdiction of coastal states for prevention and control of marine pollution from ships is more constrained in the Exclusive Economic Zone[12]. The sui generis status of this zone, neither partaking territorial sea nor that of the high seas, place more restrictions in the exercise of control by the coastal state, both legislative and enforcement jurisdiction. The EEZ, represents an

[12] Hereinafter referred to as "EEZ".

area beyond and adjacent to the territorial sea of a state and extend to a seaward limit of 200 nautical miles. The concept, which was initially articulated by the Latin American states under the label of the 'Patrimonial Sea' and later called as "Exclusive Economic Zone" by Kenya was finally accorded recognition under the UNCLOS III in 1982[13]. It has now been shown by the practice of states to have become part of customary international law.[14] This area had been one where ships navigated free from restrictions other than those imposed by the flag states. An analysis of the legal status, rights and duties and jurisdictional provisions under the UNCLOS III which adopted the EEZ concept reveal that coastal states jurisdiction for prevention of pollution is very limited.

The legal regime established under the UNCLOS,III recognises only sovereignty of coastal state limited to the protection of economic interests of coastal states in the EEZ.[15] Coastal states are vested with rights for exploration and exploitation, conservation and management of economic resources in the EEZ in

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[13] For a historical introduction to the concept of EEZ and evolution of nature of rights, duties and jurisdiction of coastal states see P.Chandrasekhara Rao, *The New Law of Maritime Zones*, Milind Publications, New Delhi, (1983), at pp.174-274, See also Nelson, "The patrimonial Sea", 22 *International and Commercial Law Quarterly Review*, (1973), pp.668-686, and Lazarev, "The Sea Economic Zone: An Important Problem of the "package"', 17 *Indian Journal of International Law*,(1977), pp.209-215 etc.

[14] *Tunisia/Libya Case*, ICJ Rep. (1982), Para 100 Also see *Libya/Malta case*, ICJ Rep.(1985)p.33

[15] See UNCLOS,1982,Art. 55to 75

addition to establishment and use of artificial islands, installations and structures, and marine scientific research. In order to protect coastal states economic rights of exploration and exploitation of living and non-living resources of the EEZ they are given the right to regulate and enforce pollution standards. There are regulations adopted in the US like Coastal Zone Management Act, 1972,[16] and the Magnum – Stevens Fishery Conservation and Management Act, 197617 in addition to regulations implementing internationally accepted pollution prevention standards for ships like the Act to Prevent Pollution from Ships, 1978 having jurisdiction over the EEZ. Several other domestic regulations play a role in guiding fisheries management inside its EEZ.[18]

Further jurisdiction of coastal states stands narrowed down by the requirement that in the exercise of these rights, coastal states should have due regard to the rights of other states. Because all states enjoy freedom of navigation and other internationally lawful uses of the sea related to such freedoms and compatible with the UNCLOS. In order to strike a balance between the coastal states jurisdiction in EEZ with those of rights of other states, the latter are bound to enjoy their freedom of navigation subject to rights of former.

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[16] 14U.S.C.§§ 1205-1215

[17] 16 U.S.C. §§1801-1883

[18] Mathew Jones, "Enforcement of U.S. Fisheries Laws in the EEZ: An Illustration of the Coast Guard's Deep Water Mission to the Waters and the need to provide it with adequate deep Water resources",13 *Ocean and Coastal Law Journal* ,(2008), pp.281-307.

With regard to prevention of pollution from ships engaged in carriage of hazardous substances, the authority of coastal states to prescribe standards is addressed in the law of the sea conventions[19]. This, however, arguably limits the authority and jurisdiction of coastal state to implementation of generally accepted international rules and standards. UNCLLOS III[20] states that in respect of pollution from vessels states shall establish "international rules and standards" acting through "the competent international organisation or general diplomatic conference" and also promote the adoption in the same manner, wherever appropriate, routeing systems designed to minimise threat of accidents which might cause pollution of the marine environment, including the coastline and related interests of coastal states.

Laudable attempt has been made under the regime of the law of seas to create an avenue for coastal states to adopt special mandatory measures inside EEZ. This does not appear to serve coastal interests. This has reference to the special jurisdiction of coastal states in respect of "special areas" within EEZ. In these special areas due to the special oceanographical and ecological conditions special standards become essential. Coastal states can adopt special measures for the protection of their resources and for the prevention of pollution from vessels.

However the establishment of special area is subject to the approval of IMO. And there is great deal of uncertainty surrounding the legal provisions

[19] See UNCLOS,1982, Part XII.

[20] *Ibid*, Art. 211(1) & (2) and (5)

guaranteeing this special jurisdiction. The provisions lack criteria to determine whether international rules and standards are 'adequate'. A state may without ratifying or acceding to an instrument it as not adequate to address its concerns. It also does not address cases where there is lack of an already existing international or generally accepted law. There is no guidance as to whether such law can relate to construction, design, equipment and manning of ships that differ from international norms. Similarly the existing time requirements also does not provide a hindrance to adoption of rules during emergency situations.

Another aspect of coastal state jurisdiction that has been debated a lot is the coastal state's jurisdiction for adoption of non-discriminatory laws and regulations for control of pollution from ships in ice – covered areas. In these areas due to severe climatic conditions and presence of ice causing obstructions to navigation and navigational hazards coastal states can prescribe stringent measures to control pollution from ships. The limitation of this right to areas within the limits of EEZ itself is questionable since it would arguably allow coastal states to adopt stricter standards in EEZ than in its territorial sea if the same conditions exist. The second question is with regard to the type of measures that a coastal state can adopt and enforce with regard to foreign vessels. The limitations prescribed in this regard are 'due regard to navigation' and 'best available evidence'. But these words would seem to limit a coastal state from adopting measures so stringent and leaves coastal state with more discretion.

The situation is more constrained for the coastal state in respect of its competence to enforce pollution standards within this zone. The prohibition of imprisonment or any other form of corporal punishment for violation of laws and regulations in the EEZ in the absence of agreement to the contrary between states is notable in this regard.[21] In the EEZ, coastal state is permitted to develop its own rules of enforcement, subject only to applicable international standards. The enforcement power of coastal state include, requesting information, physical inspection of the vessel, and the institution of proceedings extending to the detention of the vessel. But the jurisdiction here is tailored to fit the particular violation in question. First up on clear grounds of belief that a violation has occurred, the coastal state is entitled to seek information. Secondly, based on evidence of substantial discharge or significant pollution or threat of pollution, physical inspection may be ordered. The evident factual situation must have reference to international criteria respecting technical, manning and other standards for prevention of pollution from ships. Thirdly, where substantial discharge causes or threatens major damage to its coastline or related interests or to any resources of its EEZ the coastal state can institute full disciplinary proceedings. In the case of arrest or detention of foreign flag vessels the coastal state should promptly notify the flag state of both action taken and penalties imposed. The foreign vessels against which pollution violation measures are initiated are also entitled to the right of prompt release on posting of financial

[21] *Id.*,Art.73

security and guarantee. This right has always been enforced promptly. In *MT Saiga*[22] decided by the International Tribunal of the Law of the Sea[23], the applicant invoked prompt release requirement of Article 73 of the UNCLOS. In this despite the fact the tanker *MT Saiga* carrying hazardous cargo of Gas oil, was involved in smuggling. It was arrested in enforcement of sovereign rights of coastal state, St.Guinea, in its EEZ, *ITLOS* ordered prompt release of the vessel on providing security. Other decisions of *ITLOS* like *Camouco*,[24] and *Grand Prince*[25] enforced right of flag states to release vessels promptly.[26] Since Article 73 is entitled 'enforcement of laws and regulations of the coastal state', in the case of pollution discharge violations from ships in EEZ, coastal states are constrained to observe such safe guards.[27] The right of hot pursuit is also available for coastal states to check violation of its pollution prevention standards by foreign ships while navigating through its EEZ.[28]

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[22] *THE M/V "SAIGA" (No. 2) (Saint Vincent and the Grenadines v. Guinea)*, Judgment (ITLOS Case No. 2). Available *in <http://www.un.org/Depts/los/ITLOS/ Judg_E.htm>*. International Tribunal for the Law of the Sea, July 1, 1999. cite visited on 26/08/2011

[23] Hereinafter referred to as "ITLOS"

[24] See 94 AJIL 713 (2000).

[25] See 96 AJIL 219 (2002).

[26] O.P.Sharma,*International Law of the Sea* , Oxford University Press, New Delhi,(2009), p.161

[27] Mohamed Dahmani, *The Fisheries Regime of the Exclusive Economic Zone*, Martinus Nijhoff Publishers, Boston, (1987), p.85

[28] See *UNCLOS*, 1982, Art. 111(2).

Upon the occurrence of a maritime casualty, or acts related to it, which can reasonably be expected to result in major harmful consequences, coastal states are entitled to take measures proportionate to the actual or threatened damage, in order to protect their coastline from pollution, including harm to natural resources. Therefore, the legality of coastal state's enforcement measures depends on seriousness of violations committed by vessels and their consequences for the coastal state's marine environment. But the wording used in UNCLOS III relating to the type of evidence that coastal states must have before deciding to take measures towards foreign ships is ambiguous. Words and phrases like "substantial discharge," "significant pollution," "major damage," "pollution of the marine environment," and "damage to the coastline or related interests of the coastal State", may result in different interpretations in domestic legal systems and resist states from initiating speedy response measures.

4.3 High Seas and Jurisdiction to Prevent Pollution from Ships

The term "High Seas" means all parts of the seas that are not included in the EEZ, in the territorial sea or in the internal waters of a state, or in the archipelagic waters of an archipelagic state".[29] It is a recognised rule that high seas are open to all nations and freedom of the high seas should be exercised

[29] *Id.*, 1982, Art.86.

subject to the conditions laid down under the UNCLOS and international law[30]. Lord Stowel stated in *The Le Louis*[31] that "all nations being equal, all have an equal right to the uninterrupted use of the unappropriated parts of the ocean for their navigation". The freedom of the high seas includes freedom of navigation subject to the exercise of other rights guaranteed for other states.

The basic principle of customary international law that vessels on the high seas are subject to "no authority except that of the state whose flag they fly" has been established since the decision of Permanent Court of International Justice in *the Lotus Case*[32]. Of course foreign warships and other state owned ships not engaged in commercial service enjoy immunity in this regard[33]. The vessels, things and persons thereon are subject to the jurisdiction of flag states while on the high seas. On the high seas, the traditional principle of exclusive flag state jurisdiction followed since late 18th century. This remains unchallenged in regard to prevention of pollution from ships also. The law of the sea convention therefore permits unlimited freedom on foreign vessels, with flag states jurisdiction over them reigning supreme[34]. The only

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30 *Id.*,Art.87. The regime of high sea recognizes the freedom of navigation, overflight, lay submarine cables and pipelines, construct artificial islands and installations, fishing and scientific rights of other states.

31 (1817)2 Dods.210

32 P.C.I.J.Reports, Series A, No.10; See also D.J.Harris, *Cases and Materials of International Law*, Sweet & Maxwell, U.K., (1991), at p.253

33 *Id.*,1982, Art.95 and 96.

34 *Id.*,Art.87

obligation placed on vessels exercising freedom of navigation within high seas is to show regard to the interests of other states.

But the general rule of flag state jurisdiction over high seas is not without exceptions. Under other principles underlying jurisdiction like universality, jurisdiction stands allowed in respect of acts like piracy, and slavery on states other than flag states. Similarly, coastal states are also allowed to initiate measures to intervene in to maritime casualties involving foreign vessels navigating on the high seas thathas resulted in pollution damage to their marine environment.[35] The UNCLOS convention also confer similar jurisdiction on coastal states. Accordingly, coastal states can take and enforce beyond territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests from pollution or threat of pollution arising following a maritime casualty or acts relating to such a casualty that may reasonably be expected to result in major harmful consequences.[36] Although as a general principle vessels while on high seas are subject to the control of flag states, in special situations. Coastal states may enforce measures proportionate and reasonable for prevention of pollution of its marine environment. Such exercise of jurisdiction by coastal states are not free from conditions. As laid down by the International Tribunal on the law of the Sea,

[35] *Supra* n. at p.295.

[36] UNCLOS,1982,Art.221(2)

such exercise of jurisdiction should not involve use of force.[37] When force is needed, such force must be reasonable and necessary. Therefore, although coastal states intervene via measures over ships for the protection and preservation of its marine environment, the coastal states cannot interfere with the navigational freedom of vessels.

The UNCLOS does not expressly confer jurisdiction on the coastal states to invoke interventionist measures on high seas to prevent marine pollution from ships. But the Intervention convention[38] allows coastal states to intervene in maritime casualties on the high seas involving ships carrying hazardous substances that threaten their coasts. The Intervention Convention allows coastal states to take such measures as may be necessary to prevent or mitigate grave and imminent danger to their coasts or related interests from marine pollution. The coastal state exercising interventionist powers is also required to consult the flag state of the ship involved, other states, and interests affected by the coastal state's intervention except in cases of emergency. It may also consult an independent expert before undertaking measures of

[37] Haritini Dipla, "The Role of International Court of Justice and the International Tribunal for the Law of the Sea in the Progressive Development of the Law of the Sea" in A.Straiti, M.Gavouneli and N.Skourtos (eds),*Unresolved Issues and New Challenges to the Law of the Sea*, Martinus Nijhoff Publishers, Boston, (2006), p.245.

[38] *International Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casualties ,1969* UNTS 1-14049; Benedicte Sage, "Identification of High Risk Vessels in Coastal Waters", 29 *Marine Policy*, (2005),349 - 353

intervention in to maritime casualties.[39] In order to prevent unreasonable exercise of jurisdiction by coastal states, the Convention provides for payment of compensation by the coastal states.[40]

It has been the practice of states to assume jurisdiction over foreign merchant vessel in respect of collisions, occurring on the high seas, once the ship is found inside its ports or internal waters. But the practice of the states has not been uniform in this regard.[41] States like Great Britain and the United States assumed civil jurisdiction if at the time when action for damages is brought, the guilty vessel happened to be inside its ports. This stand is followed despite the fact that both ships involved in collision flew foreign flags. In France the test to invoke jurisdiction seems to depend on whether the damaged ship happened to be flying its flag. In the case of collision involving both foreign ships the consent of ship or existence of special circumstances determined this. In states like Italy the presence of ship after collision in its ports and location of its port near to the collision has been decisive factor in affording civil jurisdiction for damages arising out of collision.

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[39] *The Intervention Convention, 1969,*Art.4 requires IMO to maintain a list of such experts.

[40] *Id.*,Art.4

[41] Robbert Jennings and Arthur Watts (eds.),*Oppenheim's International Law*, Universal Law Publishing Co., Delhi, (2003), pp.16-35

4.4 Jurisdiction to Prevent Pollution under Indian Law

During the negotiations prior to arriving at the limit for Contiguous zone at the Third session of the Conference held at Geneva in 1975, India maintained different perception about its limit. Considering the spurt in smuggling activities in India's coastal waters during 1960's and 1970's, Indian custom authorities advocated that an enlarged contiguous zone would act as a deterrent to smugglers and help in restraining illegal trade. Therefore India claimed an extended contiguous zone up to 18 miles beyond the territorial sea during the discussions for adoption of its limits. Even though India's stand thrusting protection of security interests and 30 mile limit did not find favour at the UNCLOS conferences, the concept of contiguous zone has been accommodated in to Indian scheme like the UK and the US. A contiguous zone of 12 nautical miles came in to force in 1962 with the coming in to force of Geneva Convention1958[42]. Even though India did not seek further to enlarge the purposes for which a contiguous zone may be declared, Indian Maritime Zones Act, 1976 included reference to the 'security of India' as one of the purposes for which jurisdiction in contiguous Zone may be assumed[43]. The practice, though not for marine pollution, indicate that in appropriate cases, the coastal state can exercise jurisdiction over the vessels in contiguous zone.

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[42] See Notification No. SRO 2920, Ministry of External Affairs, Govt. of India dtd December 3,1956

[43] The Territorial Waters, the Continental Shelf, the Exclusive Economic Zone, and other Maritime Zones Act,1976, Sec 5(4)(a)

The *Enrica Lexie* incident, the recent case raised the scope of coastal states jurisdiction over contiguous zone before court sin India. The case involved murder of two fishermen by Italian marines while navigating through India's contiguous zone. In this case, the trial court assumed criminal jurisdiction under section 302 of the Indian Penal Code for the murder of fisher men by the crew of the Italian ship *Enrica Lexie*. The High Court of Kerala upheld the assumption of jurisdiction.[44] Similarly, India has also claimed jurisdiction over EEZ under the Maritime Zones Act, 1976. But it would seem that Indian law does not impose certain limitations regarding enforcement of regulations of the coastal states allowed under the UNCLOS, 1982 in the EEZ.

Compared to the practice of states like Bangladesh, and Srilanka Indian law provide for the penalty of imprisonment for violation of coastal state regulations in the territorial waters and EEZ[45]. But the fisheries regulations of India has restricted penalty to fine for violations occurring inside the EEZ. However imprisonment has been prescribed for offences like obstructing public servants from exercise of powers, failure to stop vessel, and provide security.[46]

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[44] *Republic of Italy v. Union of India*, 2013 (1) K.L.T 367 (SC)

[45] *Supra* note.88,Sec.11

[46] The Maritime Zones of India (Regulation of Fishing by Foreign Vessels), Act, 1981,Sec.15

As far as the jurisdiction on the high seas is concerned, the attitude of the Indian judiciary is also to favor flag state jurisdiction. In *Captain Subash Kumar v. Principal Officer, Mercantile Marine Department*,[47] the main issue addressed before the Supreme Court was applicability of Merchant Shipping Act ,1958 to a shipping casualty that occurred in the High seas. In this case a criminal petition was first filed before Egmore Magistrate Court against appellant alleging negligence on his part during a casualty resulting in loss of lives, cargo and ship. Meantime appellant also filed a criminal miscellaneous petition under s.482 of Criminal Procedure Code before the High court of Kerala pleading the court has no jurisdiction since the casualty occurred about 232 nautical miles away from Indian territory. The High Court rejected the petition and held the appellant to be falling within India's jurisdiction and ordered to initiate an enquiry under s.363 of Merchant Shipping Act, 1958. In this appeal filed before the Supreme Court, the Court upheld the jurisdiction of its flag state and upheld the it over incidents occurring in High Seas, since the incident occurred 232 nautical miles away from Indian territory and ship involved was also Panamanian ship. The mere fact that master was holding Indian competency certificate does not oust the jurisdiction of flag sate.

4.5 Conclusion

The international legal frame work for legislative competence of coastal states to prevent pollution from ships in contiguous zone and EEZ under

[47] A.I.R 1991 Mad. 1632, 1991 SCR (1) 742

UNCLOS establish the supremacy of navigational interests of maritime states over the environmental concerns of coastal states. This situation is more explicit in respect of coastal state's legislative competence in the EEZ. The high sea status of this zone put more restrictions on coastal states prescriptive jurisdiction. Therefore international standards remain the basis for exercise of prescriptive jurisdiction by coastal states in the EEZ. Even in respect of 'special areas' inside that require adoption of special mandatory measures to prevent pollution from ships, coastal states are required to work with the IMO to agree on the required measures. Further the requirement that coastal states additional pollution prevention measures in these areas must not include design, construction, manning and equipment standards which are not generally accepted. This further restricts its regulatory control for prevention of pollution in the EEZ. The extensive jurisdiction enjoyed by the flag state over its vessel on the high seas to investigate, prosecute and punish violations by its ships is also not free form pitfalls.

Chapter -5

INTERVENTION TO CONTROL POLLUTION DURING MARITIME CASUALTIES

Lessons learnt by the maritime community from major accidents involving hazardous substances have reiterated the importance of arming coastal states with power to intervene to avoid the spread of pollution. The power of coastal states to intervene in casualties guaranteed under international norms allows them to take necessary actions to prevent, mitigate or eliminate threat of pollution arising from a maritime casualty. This chapter is an overview of the law regulating coastal states power to intervene in maritime casualties involving ships carrying hazardous substances. The vague and general power authorized under international norms for intervention in to maritime casualties pose doubts about the legality of this extra ordinary jurisdiction. The safeguards and precautions provided under the current regime also deserve a critical evaluation. The study also highlight the need for improving intervention powers of coastal state in the interest of prevention of marine pollution from ships.

5.1 The Scope of Coastal States Power of Intervention

In the event of an accident or maritime casualty a relevant question that may be raised is what measures a coastal state can take to prevent or reduce the

pollution occurring near to its coast. This issue normally does not concern if the incident is occurring inside the territorial sea of a coastal state. This is because within the territorial sea the coastal state enjoys sovereignty over foreign vessels except where the vessel is exercising the right of innocent passage. But if the vessel is beyond areas subject to the jurisdiction of coastal states necessarily it questions the authority of coastal states if it intervenes to prevent the spread of pollution. The issue of what powers coastal states have in such situations was raised after the *Torrey Canyon Incident*, 1967[1]. This incident involved an oil spill from an oil tanker ship on the high seas pausing the threat of spreading of oil to the nearby British Coast. The government of U.K. responded by bombing the tanker in an act to reduce pollution spreading to its coast and set the oil on fire. Soon doubts about the legality of this action led the U.K. government to refer the matter to IMO.

Till then no well established practice acknowledging the right of intervention existed under customary international law. Hence the matter was

[1] During this disaster, *The Torrey Canyon*, laden with 117,000 tons of Kuwaiti oil, bound for Milford Haven struck the reef leading to oil spill of 3,000 tons of oil. The tanker broke her back during a salvage attempt releasing another 30,000 tons of oil. Emergency measures were taken on behalf of the U.K authorities by dropping aviation fuel, high-explosive bombs, and rockets to sink the tanker and burn off the remaining oil. See *http://everything2.com/title/Torrey+Canyon.* Site visited on 23/3/2012

called for discussion under IMO.[2] This led to adoption of International Convention Relating to Intervention on High seas in Cases of Oil Pollution Casualties, 1969.[3] Later it was extended to pollution caused by other hazardous and noxious substances by way of protocol adopted in 1973.[4] It allows coastal States to take measures on the high seas necessary to prevent, mitigate or eliminate grave or imminent danger to the coastline or related interests from pollution or threat of oil pollution of the sea following the upon a maritime casualty. The 1973 protocol adopted to this convention extended this power of state to incidents involving substances other than oil. But this right of coastal states to intervene in maritime casualties under the Intervention Convention has been limited to maritime casualties occurring within the high seas. The issue of intervention again received attention at the UNCLOS, 1982. The right of intervention of coastal states was not given a sound footing. It contains no direct provision empowering the coastal states right to take action against pollution casualties. Article 221 however does provide that the convention is

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2 The legality of its action was decided by the IMCO on a reference made to it by the UK. The IMCO adopted the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 on November 29, 1969. For text of convention see 970 U.N.T.S. p.211.

3 *Id.*,

4 The Protocol Relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil,1973. It extended the convention to cover substances other than oil. For the text of protocol see 1313 U.N.T.S. 3

not to prejudice the rights of coastal states,[5] pursuant to international law both customary and conventional to intervene in the manner described above beyond the territorial sea.

The law in this regard developed partly under the Law of the Sea Convention, 1982. The extend and scope of this right has been discussed inn detail in the Intervention Convention. Both the Intervention Convention and the protocol are limited in its application to measures taken "on the high seas." This questions what guidelines are available to guide coastal states in intervening in maritime casualties occurring inside waters other than high seas? Further coastal states can take such measures on high seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to the coastline and other related interests from pollution or threat of pollution. What constitutes grave and imminent danger that enable coastal state to intervene without incurring liability for paying compensation to vessels involved in pollution ?

5.2 Scope of Intervention Convention, 1969

The most important international instrument to address the rights of coastal states intervention powers is the Intervention Convention, 1969. As the

[5] See UNCLOS, 1982, Art. 221 states "pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty, which may be reasonably expected to result in major harmful consequences."

very name of the convention itself suggests the right of intervention governs only measures taken on the high seas.[6] At the same time scope for using intervention powers granted under UNCLOS is 'any where beyond the territorial sea'.[7] Both the provisions are trying to deal with same right, viz the right of coastal states to intervene in maritime casualties. Even then why its geographical scope and application is differently approached in these instruments? The implication of the restriction on geographic scope of these measures is a matter to be looked in to. The resolution of these issues is of great relevance for maritime casualties arising out of transboundary movement of hazardous substances as the power of intervention is of exceptional nature.

The resolution of these issues requires some introspection in to the origin of the intervention convention which is of earlier origin, compared to the UNCLOS III, which guarantees similar right of intervention. At the time of adoption of Intervention Convention, there was no general agreement as to the extent of the territorial sea and there was no concept of an Exclusive Economic Zone , the sea beyond that limit of 12 nautical miles usually claimed as territorial seas was generally regarded as the high seas.[8] It is against this background, article 221(1) of UNCLOS refers to any sea zone

6 Intervention Convention ,1969, Art. 1

7 *Id.*,

8 It was only with the adoption of UNCLOS in 1982 that almost a1l States accepted a maximum limits for the territorial sea and EEZ viz., 12 and 200 nautical miles respectively from coastal baselines.

beyond the territorial sea. From this it can be concluded that UNCLOS creates uniformity and legal certainty as to the extent of the right of intervention defined in both Intervention Convention and the UNCLOS. Both the Intervention Convention and its Protocol should be considered as regulating the right of intervention not only on the high seas but also in the EEZ. But still the Intervention Convention being a special measure remains the principal instrument to elaborate upon coastal states right of intervention by dealing exclusively with the rights, and obligations in relation to power of coastal state to intervene. This is because the wordings of UNCLOS in this regard is too general and does not offer a direct account of the right of intervention or in any way deal with any aspects of the right. It contains no direct provision empowering the coastal states with the right to take action against pollution casualties[3]. Article 221 however does provide that the convention is not to prejudicial to the rights of coastal states pursuant to international law, both customary and conventional to intervene in the manner described above beyond the territorial sea.

Even then the issue remains whether both the convention and UNCLOS provision is restricted in its application to pollution incidents inside waters other than territorial sea for example inside internal waters, ports, and harbours while the vessel carrying hazardous substances is in its transboundary movement. But the impact of such limitation lies with the fact that non – parties to intervention convention like India can take the benefit of the right

and be in a position to take refuge under Article 221(1), without being bound by the liabilities and obligations for improper exercise of intervention. This is specifically because Indian law dealing with prevention and containment of pollution of the sea by oil and other hazardous substances is capable of conferring similar power of intervention.[9] But it does not deal with liability of states. Indian legislation tactfully avoids the liability because India is not a party to it. But the U.S. and the U.K. have confirmed their right to intervene by adopting the Intervention Convention.[10]

5.3 Coastal State's Liability to Pay Compensation

In order to avoid misuse of power of intervention by coastal states Intervention convention incorporates certain safeguards. The intervention action taken by the coastal states is therefore required to satisfy certain principles and conditions. Actions taken by coastal states against vessels causing pollution must be proportionate to actual or threatened damage and must not go beyond what is necessary to achieve the object of intervention viz., prevention, reduction and elimination of pollution. Such measures shall cease as soon as that end has been achieved; they shall not unnecessarily interfere with the rights and interests of the flag State, third States and of any persons, concerned. A coastal state which goes beyond what is permitted by the

[9] See the Merchant shipping , Act , 1958, Part XIA

[10] R. R. Churchill and A. V. Lowe, *The Law of the Sea*, Manchester University Press, Manchester, (1991), (2 ed.), 68-76

convention and causes damage to the vessel will be liable to pay compensation.[11]But regarding what measures can be treated as s proportionate ,both national and international measures lack proper criteria and merely states that measures must be proportionate to the amount of harm caused or imminent.[12] The maximum distance from the coast within whose limits coastal state may take intervention measures is also not provided. In urgent situations coastal state may even take measures with out prior notification and consultation with affected interests. In such cases it is obligatory to notify the measures taken to affected states and IMO.[13]

The obligation to pay compensation, at the same time has been accepted in to national practice by states like U.S.A and the U.K.[14] The U.S, legislation in this regard impose specific obligation on its part to redress by way of compensation the damage caused by the intervention measures which is not proportionate to the pollution damage.[15] Even though the liability of the intervening state to pay compensation has been accepted in national regulations implementing this right of intervention of coastal states, this remedy has

[11] Art. 6

[12] Art. 5

[13] Intervention on the High Seas Act, 33 U.S.C. §§ 1471-1487 § 1479. See also Merchant Shipping Act 1995 (U.K), and Indian Merchant shipping Act ,1958 .Even though it incorporates power of intervention, it does not provide for liability of state.

[14] Article 3

[15] s.10

seldom been invoked in actual practice. In this context the *Argo Merchant* oil spill incident can be examined. An oil tanker, while beyond territorial waters of the U.S. laden with oil, requested the U.S. Coast Guard permission to release oil in order to lift the vessel. But U.S Coast guard denied the request made for allowing place of refuge. Due to rough weather the vessel broke in two. One part sank on its own accord and the other section was sunk as a result of Coast Guard naval gunfire to reduce spread of pollution to the U.S coast. Although there was some civil litigation as a result of this casualty no claim was made against the U.S. Indeed, legal research has not found any cases of claims made against the U.S. government under this statute, nor indeed against any other government under the Convention itself.

The English regulation in this context is more concerned about the environment. It provides for the liability of the ship owner, insurer and compensation fund to compensate for the damage to the marine environment for any damage caused in the U.K by measures reasonably taken to prevent the pollution from the casualty.[16]

5.4 Power of Coastal State to give Directions

Intervention convention literally speaking only authorizes coastal states in general terms to take measures on high seas. Since the concept of high seas does not admit of hindrances to exercise of navigational rights by foreign ships

[16] This is in addition to compensation arrangement specifically available for oil, HNS substances under the Merchant Shipping Act, 1995, s.153 &154,.

convention nowhere mentions about need for issuing directions by coastal states to the ship involved and its cargo to prevent, mitigate or eliminate the danger of pollution. The UNCLOS, III provisions in this regard does not give any guidelines.[17]

The merchant shipping legislation in the U.K in this regard is more explicit about intervention powers.[18]The intervention powers within and outside U.K. waters have been properly defined in it s domestic legislations.[19]Its national legislations properly vest the authority to issue directions during casualties. The powers to give directions are vested with the Secretary of the State. The power extend to giving directions and taking such actions as may be necessary in respect of the ship or its cargo. The secretary of state may use the powers to prevent or minimize pollution or threat of pollution or to remove or reduce risks.

In the case of an accident requiring intervention, the secretary of state may issue directions to the owner, master, pilot, salvor in possession of ship, or his agents or servants. When the ship has been directed to a harbour or port the

[17] See UNCLOS,III, Art.221

[18] See the Merchant Shipping Act,1995, and Merchant Shipping and Maritime safety Act, 1997 as amended by the Marine safety Act,2003

[19] The Merchant Shipping (Prevention of pollution)(Intervention)(Foreign Ships) order,1997 give effect to the convention for casualties occurring in High seas. Merchant Shipping Act,1995, and Merchant Shipping and Maritime safety Act, 1997 as amended by the Marine safety Act,2003 prescribes the rules relating to intervention powers inside U.K Waters.

person in control of such port or harbour may also be issued directions. The powers granted by the U.K legislation are wide enough to render every effort to control the pollution. It can be directed at the ship, anything forming its part, to remove the ship, to deploy personnel, initiate salvage measures. The power can also be to grant a place of refuge, do repairs to ship or disposal of cargo.[20]In regard to casualties occurring on the high seas the Secretary of the state is allowed to give directions. Such directions may be given to given to persons or pilots, harbour masters, port and harbour authorities.[21] In United Kingdom it was after *SEA EMPRESS* incident, the power to give directions to pilots, port and harbour masters and harbour authorities was introduced.[22]This has been necessitated because port or harbour authorities have powers to restrict entry of vessels in to harbours and ports.[23] This provision to arrange and make use of safe haven or place of refuge while exercising intervention has not been accepted in jurisdictions of the U.S., India or international norms.

Such directions under Merchant shipping Act in the U.K can require the person to whom it is given to take or refrain from taking any action of any kind whatsoever, including requiring the vessel to be moved, or not to be moved to a

[20] The Marine Safety Act, 2003, Schedule 3A

[21] See the Merchant Shipping (Prevention of pollution)(Intervention)(Foreign Ships) Order, 1997, Art.4(2), 20(2),

[22] See the Merchant Shipping Act, 1995, s.137 as amended by Merchant Shipping and Maritime safety Act,1997 . The Act has been now superseded by the Marine Safety Act 2003.

[23] The Marine Safety Act,2003, shedule 3A

specified place, removal of vessel from a specified place or locality, loading or unloading of cargo, and specified salvage measures to be or not to be taken. And in cases where the powers to give directions are considered to be inadequate or are proved to be inadequate, the authorities can take any action of any kind whatsoever including, but not limited to, sinking or destroying the vessel.

The American counterpart in this regard is not that much elaborate about the directing power. The U.S law place thrust on the penalty to be imposed on person for disregard of directions given.[24] Any willful disobedience to directions given in pursuance of intervention powers can result in criminal penalties. Similarly obstructing a person from carrying out these directions can also have the same fate.[25]

The right of coastal states to intervene in casualties occurring in waters within its jurisdiction explicitly states about coastal states authority to issue directions to the vessels involved in pollution incident by giving instructions to ship owner, master, salvor or any one in direct control of ship to take measures to control pollution. And only if such instructions are evaded by them, the coastal states intervene by resorting actions as mandated by the convention. In actual practice this direction making powers is used by the state authorities in a way to avoid the recourse actions for misuse of power to intervene. Therefore

[24] The Intervention on High Seas Act, s.12.

[25] *Ibid.*

directing power of coastal state is an inevitable part of intervention powers guaranteed to coastal states. Hence, norms dealing with its nature and scope require clarification.

Similar necessity can be attached to issuing direction to a harbour or port authority to ensure access to a port of refuge.[26]Hence both international and Indian Law needs to be amended to provide for this power. The power of intervention that is addressed in its merchant shipping law is also vague.[27] The importances of a place of refuge in reducing the chance of pollution following the casualty do not find a place in Indian Act. The need for power to issue directions has also been discussed in judicial decisions.[28] Since the case was discussed in chapter relating to jurisdiction, it is not discussed in detail here. The laws in this regard both Indian and international needs to be expanded to make a direction to the nearby ports or harbour to provide a safe haven.

[26] The absence of such a power vest with the secretary of state in the U.K. to issue a direction to harbor authority to provide a safe haven has been shown as the reason that led to the breaking up of the ship *SEA EMPRESS*

[27] See Merchant Shipping Act,1958, s.356 K

[28] In Australia the Protection of the sea (Powers of Intervention)Act, 1981 was amended in 2006 to extend the direction making power to include authority to direct port authorities to provide refuge for stricken ships to avoid pollution. See also the Irish case *ACT Shipping (Pte) Limited v Minister for the Marine, Ireland and the Attorney General* (1995) 3 IR 406.

5.5 Conclusion

The Intervention Convention, that determine the scope and extend of the measures, which may be adopted by the coastal states in exercise of the right of intervention, is expressed in too vague terms. This tends to promote lack of uniformity among member states in adoption of intervention regulations. On the administrative side, dichotomy of control among the authorities vested with the power to intervene provides a blurred picture of its enforcement.

The law on coastal states power to intervene in maritime casualties is restricted in its scope and application. The first point to note is that the scope of the measures that prescribe the right of intervention is restricted to casualties of a catastrophic nature likely to cause major harmful consequences to the coastline and related interests of a State. These measures regulate the exceptional power that may be taken by coastal States to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea by harmful substances including oil, following upon a maritime casualty. But it is pathetic that there is no guidance as to what constitutes 'grave and imminent danger'. Only guidance that can be had in this regard is the maritime casualty must be of the magnitude as that occurred during *the Torrey canyon* disaster which in fact led to adoption of Intervention Convention. The meaning of 'related interests' is also vague. But the convention has defined it to include fishing, tourism, and protection of marine resources and wildlife. However, the Convention is also not clear if the

casualty that is causing the pollution or posing the risks of pollution from oil or other hazardous substances need to be on the high sea for a state to intervene.

One of the main restrictions of Intervention Convention is that it authorizes coastal states, to take measures on high seas. Since the concept of high seas does not admit of hindrances to exercise of navigational rights by foreign ships the intervention convention nowhere mentions about need for issuing directions by coastal states to the ship involved and its cargo to prevent, mitigate or eliminate the danger of pollution. The national merchant shipping legislations extending this over incidents happening within in its waters explicitly states about coastal states authority to issue directions. But the law dealing with nature and extends of directions issued while exercising the power of intervention requires a clarification.

Chapter -6

LAW ON CARRIAGE OF DANGEROUS GOODS

The law governing carriage of dangerous goods through sea was evolved through the general maritime regulations for ensuring safety of life at sea and prevention of marine pollution from ships.[1] But these rules were technical in nature and retained in the realm of public law. In order to provide a private law measure that better address the liability of carrier for loss of cargo and other incidental aspects, special treaties were made relating to the carriage of goods by sea. Hazardous substances during its transboundary movement through sea as cargo are also governed by these rules. The regulations for carriage of dangerous goods are also discussed in this study.

Even though these standards were evolved with the objective of remedying the loss caused during carriage, the obligation of carrier and shipper to ensure safe carriage of dangerous cargo is specifically dealt with. A study of the carriage regime is therefore essential and relevant for the purpose of prevention of marine pollution. Hence it is proposed to analyse international scheme in this regard which started with adoption of the Hague Rules, 1924.[2] The Hague Rules were

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1 These measures are mainly dealt under the SOLAS Convention ,1974 and MARPOL Convention,1973.

2 International Convention For The Unification Of Certain Rules Of Law Relating To Bills Of Lading, Brussels, August 25, 1924 hereinafter called "The Hague Rules", For text of the convention see 1202 L.N.T.S. 155

subsequently amended by two protocols viz., in 1968 and 1979.[3] Further changes were made to the obligation of shipper and carriers liability for damage arising from carriage of dangerous goods under the Hamburg, Rules, 1978.[4] The recent Rotterdam Rules, 2008 have again introduced major changes in this regard.[5]

6.1 Evolution of the Law Governing Carriage of Dangerous Goods

Generally, the law governing carriage of dangerous goods by sea evolved under the United Nations and was carried through the SOLAS Conventions. Although these measures reflects both public and private law approach, its scheme is rather to lay technical standards of safety for carrying dangerous goods. At the same time regulatory provisions pertaining exclusively to the realm of the private international law under the international carriage of goods by sea regime. The developments of law under these two streams co-exist. For instance concept of dangerous goods under IMDG code adopted under SOLAS form the basis of carriage conventions. The historical evolution attempted here studies evolution of law under both heads.

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3 The Protocol to Amend the International Convention for the Unification of Certain Rules Relating to to Bills Of Lading of 1924, February 23,1968, hereinafter called "Hague –Visby rules". For the text of the Protocols see 1422 U.N.T.S.121

4 U.N.Convention on the Carriage of Goods by the Sea at Hamburg, March 31,1978 hereinafter called "The Hamburg rules". For the text See 17 I.L.M.608.

5 Final Text of "the Rotterdam Rules" annexed to the General Assembly Resolution No.63/122 U.N.Doc.A/RES/23/622.

6.1.1 Development under General Maritime law Governing Dangerous Goods.

During the early 19th century very few dangerous goods were carried through sea in ships. Regulation of goods which were considered dangerous by reason of their nature, quantity or mode of stowage began to appear in national legal systems like Great Britain. In U.K. the Merchant Shipping Act, 1894[6] in principle prohibited carriage of such goods likely to pose danger to human health or safety of ship when they are carried through the sea. Regulations also imposed duty on the part of shipper to mark such goods and give notice of it's dangerous nature to the carrier.[7]

The first International Convention on the Safety of Life at Sea, 1914[8] adopted the same stand towards dangerous cargo. Under the SOLAS Convention also it was forbidden to carry goods, which by reason of their nature, quantity and mode of stowage were liable to endanger the lives of the passengers or the safety of the ship. Moreover the Convention left it to the member states to determine which goods were to be treated as dangerous and to indicate the precautions to be taken in their packing and mode of stowage. The issue of carriage of dangerous cargo did not receive much importance under the subsequent SOLAS Convention adopted in 1929. The lack of

6 Merchant Shipping Act, (U.K)1894,sec.301

7 *Id*. sec.446.

8 Hereinafter called "the SOLAS Convention".

enthusiasm at that time was due to the relatively small quantity of dangerous goods carried in ships. The Second World War brought a change in the perception towards dangerous goods. The carriage of goods through sea increased tremendously and more cargoes which could be termed dangerous were moved through the sea. This expansion in trade led to addition of a new chapter to the 1948 SOLAS Convention to deal specifically with "dangerous goods".

During early 1950s, the Transport and Communications Commission of the United Nations Economic and Social Council[9] found that the international regulations for the transport of dangerous goods were fragmentary. These regulations applied to the different means of transport and no uniformity existed among the laws of different countries. Considering the urgent need created by the increase in the transport of dangerous goods and the concerns raised at international level to ensure its safe carriage without risk of danger to life, property and environment, on the request of the Transport and Communications commission, the ECOSOC recommended the United Nations to form a committee to study this issue. The United Nations Committee on the Experts on the Transport of Dangerous Goods which was formed in 1953 to study the issue advocated the classification of dangerous goods and imposition of marks and labels for them depending on the nature of the hazard posed by them. After approval of the first report of the Committee made in 1956, the

[9] The *United Nations Economic and Social Council* herein after called 'the ECOSOC'

ECOSOC approved the first edition of *UN Recommendations on the Transport of Dangerous Goods* or the "Orange Book". The Recommendations intended to provide a basis for the development of harmonized regulations for all modes of transport, in order to facilitate trade and the safe, efficient transport of dangerous goods. They are addressed to governments and international organizations concerned with the regulation of the transport of dangerous goods. But, they did not apply to the transport of dangerous goods in bulk, which in most countries were subject to special regulations.

The Recommendations provided a basic scheme of provisions to follow a uniform set of national and international regulations governing the various modes of transport of dangerous goods. They also formed the basis for international modal regulations on the transport of dangerous goods prepared by the International Maritime Organization (IMO), and development of regulations at national and regional level. The UN Recommendations are amended and up dated every two years by the UN Sub-Committee of Experts on the Transport of Dangerous Goods to accommodate latest developments. Since it inception in 1965, it has undergone significant changes to keep pace with the changing needs of time.

The United Nations Recommendations did not invoke much response. However the Conference convened in 1960 to revise the SOLAS introduced certain welcome measures to deal with carriage of dangerous goods. A chapter

was dedicated to exclusively to deal with dangerous goods.[10] The regulation for carriage of dangerous substances also underwent modifications with the subsequent revision of the SOLAS Convention. After entry into force of SOLAS Convention, 1974 also several amendments were made to the regulations on carriage of dangerous substances.

Necessity was always felt to harmonise the recommendations to make it adaptable to all forms of transport. The trend of multimodal transport system that emerged during 1980's also required changes. Many national and regional measures based on UN recommendations were structured differently. As a result in 1990's an attempt was finally made to re- format the UN Recommendations to draw 'Modal Rules' which cane easily be adopted by nations without the necessity of reissuing them in the format of their national regulations. When revising or developing national regulations, the governments are expected to comply with the Model regulations. Although only a recommendation, the Model Regulations have been drafted in the mandatory sense, and the word "shall" is employed throughout the text rather than "should", in order to facilitate direct use of the Model Regulations as a basis for national and international regulations. The UN Sub-Committee of Experts on the Transport of Dangerous Goods is also authorised to amend the UN recommendations every two years up date it with the latest developments in dangerous goods transport. The latest revised edition, published in 2010 is

[10] The International Convention on Safety of Life at Sea, 1960, Chapter VII.

currently in force from January 2012. It came in to force from January 2014 mandatorily and voluntarily from January 2013 for ships carrying dangerous goods covered by the IMDG Code.

6.1.2 Development under Carriage of Goods by Sea Regime

The need for unification of the carriage of goods by sea was felt as early as 1880's. The law relating to carriage of goods by sea originated in the attempts made by the International Law Association, then known as the Association for the Reform and Codification of the Law of Nations to draft a model bill of lading containing the terms of a model contract of affreightment. This initiative though was unsuccessful received recognition when the Hague rules was adopted. But the dissatisfaction with the lack of uniformity and oppressive practises followed in carriage of sea contracts led the U.S. to adopt the Harter Act, 1893. The Harter Act prohibited the use of exemption clauses and required the carrier to exercise due diligence to make the ship seaworthy as a condition precedent to claiming a statutory exemption of liability for faults or errors in navigation or ship management. Again in 1920's, after first world war, the need for international uniformity was felt in order to ensure predictability, at least in liability issues.[11] These pressures did the spade work for the negotiation of draft uniform rules at the Hague Conference of 1921,

[11] M.F. Sturley, "The History of COGSA and the Hague Rules" 22 *Jounal of Maritime Law and Commerce,* (1991), p.1; See also the Travaux Préparatoires of the Hague Rules and of the Hague-Visby Rules, CMI, Antwerp, (1997).

held under the auspices of the Comité Maritime International,[12] the informal successor to the International Law Association in maritime matters. Despite great confusion as to its adoption, the text of the draft Hague Rules was re-examined at the fifth International Diplomatic Conference on Maritime Law in Brussels, in 1923. Finally in 1924, the Hague Rules were signed in Brussels.[13] The Hague Rules were received in to national systems of U.K[14] and India. The Hague Rules were embodied in Carriage of goods by Sea Act,1925, although India never became a party to the convention. Indian legislation merely followed the English legislation in this regard.[15] But the U.S did not become a party to the convention. But its legislation is in parity with the Hague norms.[16]

Again after several years of experience with the Rules, the CMI suggested some amendments to these rules to remedy difficulties encountered in legal and technical aspects. After discussions a draft Protocol was drawn up and approved by the CMI at its Stockholm conference in 1963. This was signed, appropriately, at Visby. The Visby recommendations were amended and formally adopted at the 12th Maritime Diplomatic Conference in Brussels

[12] Hereinafter called "the CMI"

[13] International Convention for the Unification of Certain Rules relating to Bills of Lading, 1924. For the text of the convention see 120 L.N.T.S.155

[14] A Diamond, "The Hague-Visby Rules" ,*Lloyd's Maritime & Commercial Law Quarterly* ,(1978), pp. 225- 226.

[15] See the Carriage of goods by Sea Act, (U.K.)1924

[16] See the Carriage of goods by Sea Act, (U.S.)1936

in 1968.[17] The Hague Rules, as amended by the Visby Protocol, came to be known as the Hague-Visby Rules. The changes introduced by the Hague-Visby Rules was given effect in U.K.[18] But the Indian Law did not progress notwithstanding the adoption of 1968 Protocol. The modifications made to the Hague Rules at the Brussels Protocol in 1968 did not gain universal approval. The cargo owning states considered the modification only as a temporary expedient and growing demand for a thorough reappraisal of the carrier's liability was felt to produce a comprehensive code covering all aspects of contract of carriage.[19] This culminated in the drafting of a new convention at an international conference convened under the auspices of the United Nations in 1978.[20] Since the conference was held at Hamburg the resultant Rules came to be called Hamburg Rules. None of the major maritime states including the U.S, the U.K and India have become signatory to the rules. In 1979, a protocol to introduce the Special Drawing Rights as the unit for fixing liability limits brought about a further technical amendment to the Hague-Visby Rules.[21] In

[17] Protocol to Amend the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading 1968, For text of Protocol see 1422 U.N.T.S.121.

[18] See the Carriage of Goods by Sea Act, (U.K.)1971

[19] John F. Wilson, Carriage of Goods by Sea, Pearson Longman publications, London, (2010)p.272

[20] The UN Conference on Carriage of Goods by Sea ,1978. For the text see 17 I.L.M. 608.

[21] Protocol Amending the International Convention for the Unification of Certain Rules of Law Relating to Bills of Lading,1979.

the 1960s and 1970s, again dissatisfaction was expressed by the developed states due to lack of uniform carriage rules, inefficient and biased in favour of carrier interests under the existing scheme. As a result, the United Nations Conference on Trade and Development began work on the issue.

6.2 IMDG CODE[22] and Dangerous Goods

The concern about dangerous goods are addressed in several international measures developed with the purpose of ensuring safety, prevention of marine pollution, and third party liability conventions.[23] Of all these measures the IMDG code occupies a place of prime importance.[24] It is the basic document to determine the dangerous character of goods for the purpose of ensuring safe carriage through sea. It brought uniformity as to the nature of dangerous goods through classification. It also introduced a uniform system of labeling, packing and marking of goods. The labeling helps to get the information about the danger or hazard, and precautions to be taken during its handling. The Code in fact consolidated the customary rules and procedures related to the carriage of dangerous goods at sea depending on the class to

[22] The International Maritime Dangerous goods Code. It was adopted by IMO Assembly in 1965

[23] The SOLAS Convention ,1974 Chapter VII deals with Dangerous Goods, The MARPOL Convention, 1973 in its Annexes II and III deal with different types of harmful substances and The HNS Convention, Art.5 deal with HNS substances.

[24] Meltem Deniz Guner Obsek, *The Carriage of Dangerous Goods by Sea*, Springer, Turkey,(2007), pp.16-20

which they belong. It brought uniformity as to the nature of dangerous goods through classification.

The IMDG Code classifies dangerous goods in different classes, and its subdivisions. It defines and describes characteristics and properties of different classes so as to provide a common pattern which would make convenient to follow in various national and international regulations. Accordingly there are 9 classes of dangerous goods like explosives, gases, flammable goods, Flammable solids or substances, oxidizing substances, toxic and infections substances, Radioactive materials, corrosives, and miscellaneous. Additionally a category called marine pollutants is included. Marine pollutants are not a separate class, although they are regulated under a special title. Many of the substances in Class 1 to 9 are, in fact, considered to be marine pollutants. Dangerous goods are assigned UN numbers and proper shipping names according to their hazard classification and their composition. Dangerous goods that are commonly transported are listed in the Dangerous Goods List.[25] Where an article or substance is specifically listed by name, it shall be identified in transport by the proper shipping name in the Dangerous Goods List.

The IMDG code has become the fundamental document to lay the criteria for dangerous goods under different modes of transport. The carriage of goods by sea regime also refer to marine pollutants as defined in the IMDG

[25] IMDG Code, Chapter. 3.2

Code in deciding the dangerous character of goods. The marine pollutants are defined as substances which, because of their potential to accumulate in seafood or because of their high toxicity to aquatic life, are subject to the regulations for prevention of marine pollution from ships.[26] provisions of Annex III of MARPOL 73/78. It is also the standard for dangerous goods under the SOLAS Convention.[27]

The merchant shipping regulations governing carriage of dangerous goods in the U.K. regarding packing, marking, labelling, documentation, stowage and segregations follow the IMDG Code.[28]In the United States, the Federal Hazardous Materials Transportation Law (HMR)[29] is the basic statute regulating hazardous materials transportation. The general approach taken in the HMR is to permit compliance with certain provisions of the IMDG Code Provided they are also listed so in the corresponding domestic law. Indian Merchant shipping Act, 1958 also define dangerous goods with reference to IMDG Code.[30]

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[26] See the MARPOL Convention, 1973, Annex III

[27] See the SOLAS Convention,1974, Chapter.VII

[28] The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations,1997

[29] See U.S.C § 5101

[30] The Merchant Shipping Act, 1958, s. 356 E. It defines "harmful Substances" for the purpose of prevention of pollution from goods carried in Bulk as including substances identified as marine pollutants. See the Merchant Shipping (Prevention

6.3 Dangerous goods: Meaning and Scope

The carriage of goods regime deals in detail with the obligations of the ship owner, liability for damage arising out of shipment of dangerous substances etc. It did not provide a clear meaning of dangerous goods. Since earlier times the approach under the regulations was to consider substances which are inherently dangerous and unsafe like explosives, and radioactive materials as dangerous. As early as in 1894 the Merchant Shipping Act of England referred to "aqua fortis, vitriol, naphtha, benzene, gunpowder, Lucifer-matches, nitro-glycerine, petroleum, any explosive within the meaning of the Explosives Act 1875, and any other goods" of similar nature as dangerous.

The norms adopted at international level to address safe carriage of dangerous goods through the sea also did not offer a definition of the term 'dangerous goods'. The safety regime established under the UN Recommendations on the Transport of Dangerous Goods, 1948, only recognised that some form of generic grouping by physical or chemical properties for identification, packing, labeling and documentation was needed[31]. The UN Committee of Experts efforts was only to adopt an

of Pollution by harmful Substances Carried by Sea in Packaged Form) Rules, 2010, s. 2(d) also. These Rules Implement IMDG Code in India.

[31] "Radioactive Materials Transport, The International Safety Regime, An Overview of Safety Regulations and the Organizations Responsible for their Development", World Nuclear Transport Institute, Review Series, (No: 1 -July 2006), p.12.

identification and classification system.[32] The International Maritime Dangerous Goods Code adopted by the IMO Assembly in 1965 insisted on a uniform system for labeling and presentation of information about dangerous character of goods. The IMDG Code also did not consider the use of a definition of dangerous goods.

The carriage of goods by sea conventions has consistently drawn a distinction between dangerous cargo and ordinary cargo. When a cargo is to be considered as dangerous remains a searching question. The Hague rules define the concept of dangerous goods by reference to danger to the ship or cargo and confer rights of action and indemnity to the carrier.[33] There is no reference to damage to environment under these Rules. The inherently dangerous or unsafe nature of goods is not the only criteria in this regard. In decisions, the courts have confirmed that goods posing risk of danger to ship and cargo as dangerous goods even though they are not inherently dangerous[34].

The Hague-Visby Rules that followed the Hague Rules prohibits the shipment of dangerous goods except with the prior notice and information of the carrier or ship owner. Apart from the liability aspects for the damage done by these goods during transit provided under the rules it does not give a definition of the term "dangerous goods". The Hamburg Rules follows the

[32] Edger Gold, "Legal Aspects of the Transportation of Dangerous Goods at Sea" 10 *Marine Policy*, (1986), pp. 185-186.

[33] The Hague Rules, Art.IV(6)

[34] *The Giannis NK* [1998] A.C.605, see also *The Fiona* [2009]2 Lloyd's Rep.175.

basic pattern of the Hague Rules but introduces certain basic modifications as to the meaning of dangerous goods.[35] The concept of danger is extended to include danger to life in addition to property under Hamburg Rules.[36] The purpose of having a definition has been ignored by the Rotterdam Rules also. The United Nations Commission on International trade Law, recognised that even harmless goods may become dangerous in certain circumstances. Compared to the approach in the earlier Rules, the Rotterdam Rules tend to clarify by assuming that goods by their nature or character are or reasonably appear likely to become a danger to person's property or the environment. According to the Rules, the concept of dangerous goods applies only "when goods by their nature or character are, or reasonably appear likely to become, a danger to persons, property or the environment.[37]The attempt seems is to extend dangerous goods to include goods causing damage to the environment.

The lack of a definition of the term "dangerous goods" was raised in several cases before the courts. A notable development made by case law in this respect is that the courts have been acknowledging the necessity of giving a wider interpretation to the term. Judicial interpretations also point to the fact that inherently dangerous or unsafe nature of goods is not the only criteria to determine dangerous character. Courts have been embracing cases in which the danger is to be found in the surrounding circumstances rather than in the

[35] The Hamburg Rules, Art.13.

[36] *Ibid*.Art.13 (4)

[37] The Rotterdam Rules, Art.32 para.1

inherent nature of the goods themselves.[38] Thus while it may appear that grains are not inherently dangerous, they have been categorised as dangerous. When grains are carried in bulk in ships, due to overheating during transit it may turn out to be dangerous.[39] There have been instances where liquids carried in bulk when mixed with other cargo have been held to pose risk of contamination. During carriage through sea the danger lies in the overall situation than in the particular category of goods involved. In approaching such cases it is important, in the opinion of Mustill J, 'to find a general test which will permit the identification of those cargoes whose shipment is a breach of contract in the absence of a specific warning as to their characteristics. It is essential when looking for such a test to remember that we are here concerned, not with the labelling in the abstract of goods as "dangerous" or "safe" but with the distribution of risk for the consequences of a dangerous situation arising during the voyage. The character of the goods does, of course, play an important part in creating such a situation. But it is not the only fact. Equally important are the knowledge of the ship owner as to the characteristics of the goods. Similarly, coal even though is not inherently dangerous, explosion can be caused by ignition of a mixture of air with methane gas emitted by coal during carriage.[40]

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[38] See *Ministry of Food v. Lamport & Holt* [1952] 2 Lloyd's Rep 371 at p 382. The goods may be dangerous even though they constitute no risk to the vessel itself.

[39] *Ibid.*

[40] *The Athanasia Comninos* [1990] 1 Lloyd's Rep. 277 at p 282. See also *Westchester Fire Ins. Co* v. *Buffalo Salvage Co.* [1941] AMC 1601.

The concept has also been extended to cases in which the goods themselves were in no way physically dangerous.[41]

In the case of inherently dangerous goods, the liability of shipper has been strict under US law. In a suit filed by the carrier against the shipper for damage to ship and other cargo, caused by the explosion caused by the cargo of thiourea dioxide, the Court of Appeal for the Second circuit, reversing the trial court's decision held the shipper liable for the damage[42]. Even though it was argued that at that time the chemical was not classified as hazardous cargo, the trial court held that the shipper, common carrier to whom the goods were entrusted for arranging the carriage and the actual carrier, Senator Lines has actual or constructive knowledge of the dangerous propensity of the cargo and dismissed the suit. On appeal the Court of Appeal considered the interplay between two sections of the Carriage of Goods by Sea Act, 1936. The first essentially states that a shipper is not liable for damage caused by cargo unless it is at fault, while the second essentially holds cargo liable for damages caused by inherently dangerous goods unless the carrier has knowledge of the

[41] *Mitchell, Cotts v. Steel,* [1916] 2 KB 610 the shippers were aware that the cargo could not be discharged at Piraeus without the permission of the British Government and were held liable for the resulting delay when such consent was not forthcoming. In the view of Atkin J the loading of unlawful cargo which may involve the vessel in the risk of seizure or delay 'is precisely analogous to the shipment of a dangerous cargo which might cause the destruction of the ship'. Similar position was taken in the case of contraband cargo in *The Donald* ,[1920] 2 KB 56

[42] *Senator Lines GMBH v. Sunway Line*, 291 F3d 145 (2d Cir. 2002)

danger.[43] These provisions reflect Article 4(3) and Article 4(6) of the Hague Rules. After reviewing the history of the Carriage of Goods by Sea Act, and the House of Lords decision in *Effort Shipping v. Linden Management*,[44] the US Court of Appeals held that negligence on the part of the shipper is not required in order to be liable for damage caused by dangerous goods. Therefore, it found that shippers are strictly liable for damage caused by inherently dangerous goods, when neither the carrier nor shipper has actual or constructive knowledge of the dangerous propensity of the cargo. Currently the U.S. has become a signatory to the Rotterdam rules.

Thus the current international regime does not contain a definition of the term dangerous goods. The carriage of goods by sea regime accords special status to these goods and lays down special liability also. But the absence of a definition makes the application of rules ineffective. The clarification offered by the Rotterdam rules does appear to be sufficient. At the same time they have not entered in to force.[45] It would be better if a definition of the dangerous goods is added to the definition clause of Rotterdam Rules. The definition must also be one capable of being widely interpreted taking account of the

[43] See 46 USC §1304(3) &(6)

[44] [1998] A.C 605. In this case a cargo of ground nut extraction meal pellets were held to be dangerous under the Hague Rules, 1925 Art.4(6).

[45] For status of the rules see *http://www.as/uncitral_texts/transport_goods/rotterdam__status.html* (site last visited March.11,2013)

circumstances that may cause the goods to become dangerous during transport through sea.

6.4 Liability for Damage

The liability regime for damage caused during shipment of dangerous goods, under the Carriage of goods by sea regime has been dynamic in nature. The liability set under the Hague and the Hague-Visby Rules were fault – based. The burden of proof was placed on the shipper or cargo interests to establish a breach of duty on the part of the carrier. Under the Hamburg and Rotterdam Rules, once the cargo claimant establishes the damage as occurring during the time when the goods are under the custody of the carrier, the carrier remains responsible for the loss unless the proper exercise of care has been established. The shift in the scheme to make the carrier responsible for damage arising from its carriage through sea places carriers in vulnerable state. A detailed analysis of the liability provisions provides a better insight here.

The Hague –Visby rules reiterates the principal duty of the shipper to inform the carrier as to the dangerous nature of the goods.[46] It provides that where carrier's consent to the shipment has been obtained without disclosing the dangerous character of the goods, he is entitled not only to land, destroy or render the goods innocuous without paying compensation but he is also able to hold the shipper liable for all damages and expenses arising from such

[46] Hague-Visby Rules, Art.4, rule 6 deals with liability for dangerous cargo. It resembles, Art.4 rule6 of Hague Rules

shipment. Where the goods shipped initially with the consent of the carrier subsequently become a danger to the ship or cargo, carrier is entitled to take similar action and shipper will not be held liable.

The liability provisions under the Hague and the Hague -Visby Rules are not easy to be interpreted. One main hurdle faced in the application of liability provisions in relation to liability arising out of carriage of dangerous goods is the confusion created as a result of the lack of definition of dangerous substances and scope of liability provisions under the regime for carriage of goods. This lack of criteria as to the exact nature of dangerous goods was addressed by the House of Lords in *The Giannis NK*.[47] In this case cargo of groundnut extraction meal pellets and wheat was carried in ship to be discharged at the port of Dominica. At destination port the cargo of groundnut pellets were found to be infested with Khapra beetle. At the port of discharge the reaction of the health authorities was such that the ship owner had no other remedy but to jettison both the cargoes in to the sea. The ship owner then proceeded against the shippers of the groundnut cargo for delay and other costs to cover claim made by the owner of wheat.

Since the bill of lading in this case incorporated the Hague Rules, the House of Lords was left with two issues viz., the scope of term "dangerous goods" and whether the principle of liability in this regard should be based on fault or should be strict. The House of Lords after considering the fact that the

[47] [1998] 1 Lloyd's Rep 337.

infestation occurred during the shipment held that the expression 'goods of a dangerous nature' should be given a broad interpretation and should not be restricted to *ejusdem generis* to goods of an 'inflammable' or 'explosive' nature. Nor should its application be confined to goods which are liable to cause direct physical damage to the vessel or other cargo. In this case the fact that the goods were shipped to countries where the imposition of a quarantine and an order for the dumping of the entire cargo was to be expected. In that sense the Khapra infested cargo posed a physical danger to other cargo.' The decision in this case also deviated from the scheme of fault based liability designed under the Hague Rules. Hence the proceedings commenced against the shippers of the groundnut cargo under Art IV rule 6 of the Hague Rules for damages for delay and other costs, together with an indemnity to cover any claims by the owners of the cargo of wheat was held maintainable.

The obligation of the Shipper under the Hague –Visby Rules extend not only to inform the carrier of the dangerous nature of the goods shipped, but also to the precautions to be taken to avoid such danger.[48] This duty of the Shipper is in addition to the duty to mark and label them. If the shipper is in breach of this obligation and the carrier does not otherwise have knowledge of this dangerous character, the carrier is entitled to dispose of the goods or render the goods innocuous without claims for compensation[49] except where the

[48] The Hague-Visby Rules, Art.13(1)&(2)

[49] *id*.Art.13(4)

carrier is otherwise liable.[50] This clarifies that carrier will not be protected when his own fault makes for the dangerous situation.

The position under the Rotterdam Rules is more complex. The duty of the shipper and the nature of liability and consequences of breach is spread out in a number of provisions.[51] The Rotterdam Rules identifies two obligations with regard to dangerous goods viz., the duty to disclose the dangerous nature of goods and a duty to mark or label the goods. A reading of the liability provisions makes it clear that the Rules contemplate that the shipper will only be responsible for loss or damage resulting from a breach of the obligation to disclose when the carrier does not have knowledge of the dangerous nature or character of the goods.[52] The Rules, therefore, imply that if the carrier does have such knowledge at the time he accepts the goods for carriage, then the shipper cannot be held liable. In such circumstances the core liability regime of the convention apply. Thus the liability of shippers stands substantially changed under the new rules. The duty of shipper to disclose is limited by the knowledge of reasonable likelihood of the goods to pose danger.[53] If goods shipped are not dangerous *perse*, there does not exist any reason for believing that they will become dangerous in transit, and a duty of disclosure does not

[50] Art.5 states the circumstances in which carrier can be otherwise termed liable. That is where goods become dangerous due to the default of the Carrier.

[51] See Rotterdam Rules, Art.32, 30(2), 15, 13 etc.,.

[52] *Id.*, Art.32(a)

[53] *Id.*,Art.30(2)

arise. Hence in such cases of non-inherently dangerous cargo, which may due to change in circumstances may turn out to be dangerous, the carrier remains liable. The risk therefore stands allocated to carriers under the Rotterdam rules.

6.5 Limitation of Liability

The regulation of carriage of goods through sea has evolved with the aim of preventing loss of damage to goods entrusted for shipment. The concern for damage to marine environment always has remained a least priority. The limitation of liability concept under the carriage of goods by sea conventions also does not give importance to this aspect. Even though obligation and liability aspects of shipper and carrier are specifically addressed, limitation of liability is not specific in this regard. Hence the limitation of liability of carrier for loss caused by dangerous cargo is same as that for ordinary cargo. It is also a fact requiring mention that shippers liability is addressed under this regime. But shippers are not given the benefit of limitation of liability.

The limitation of liability provisions was introduced in the Hague rules as a compromise. The provisions try to avoid the injustice done by the traditional practice of inserting non-responsibility clauses by the carriers in to the bills of lading. On the other hand it gave the benefit of limiting the liability of the carriers to a certain amount. The Hague Rules expressly prohibited insertion of exclusion of liability clauses.[54] The Rules mandate the limit to

[54] The Hague Rules, 1924, Art. 3(8) expressly disallowed exclusion clauses.

which the carrier can be held liable for loss per unit of the cargo lost.[55] The cargo-owner is also given the right to declare the full value of the cargo under the Hague Rules and bargain for a higher liability . In states like the U.S. the inclusion of terms in contracts of carriage were recognised for long time.[56] American courts have held that provisions fixing a maximum amount as liability of the carrier were not invalid under the Harter Act.[57] The Hague-Visby Rules have only updated the limits of liability prescribed by it's predecessor. The liability provisions of the Hague Rules only tend to create an incentive on the part of the carrier to prevent loss or damage to the cargo.

The problems faced by the maritime industry during the period received special attention in formulation of limitation of liability provisions under the Hamburg Rules.[58] Since the existing liability limits had eroded, urgent measures were needed to update them again. The quantitative unit of calculation also underwent changes and it came to be based on the amount per

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[55] *Id.,* Art.4(5) limited the liability to £100 per package or unit.

[56] Meltem Deniz Guner Obzek, *The Carriage of Dangerous Goods by Sea* , Sprringer, Turkey, (2007), p.204

[57] *Ibid.*

[58] See Wilson, "Basic Carrier Liability and the Right of Limitation", in Samir Mankabady (ed.) *The Hamburg Rules on the Carriage of Goods by Sea* (1978), pp.138, 146; Samir Mankabady, "Comments on Hamburg Rules", in Samir Mankabady (ed.) *The Hamburg Rules on the Carriage of Goods by Sea,* (1978), pp.27, 62

package or shipping unit or alternatively per weight, whichever is the higher as a matter of convenience.

In contrast to the limited liability of carriers for loss of or damage to goods the liability of the shipper is unlimited. There have casualties in which the ship involved in the incident was held to be constructive total loss.[59] Often unsafe stowage of cargo result in accidents. It is interesting to note here that when the carrier fails to exercise his duty of care in respect of the goods and to provide a seaworthy ship, he is allowed to limit his liability. But when goods are damaged by other goods on board, the shipper of the damaging goods is not able to limit his liability. During the negotiations for adoption of the Rotterdam Rules, the need for limitation of liability of Shippers was mooted. At the Conference that adopted these Rules it was stated that to achieve a balance, it would be desirable for shippers to be subject to a liability regime equivalent to that envisaged for carriers, with a limitation of liability. The grounds for treating the shipper and the carrier differently are questionable and can be explained only by the existence of a long tradition of imbalance between ship owners and maritime transport users.

6.6 Conclusion

The legal regime of carriage of goods by sea make special provisions for ensuring safe carriage of dangerous goods through sea. Since these

[59] *In Re M/V DG Harmony a ship carrying dangerous cargo* calcium-hypochlorite that damaged by fire was declared to be constructive total loss.

standards developed to ensure safe carriage, prevent loss of cargo and damage to ships, its provisions is not explicit about prevention of marine pollution. Although, marine pollution does not find a place in its objectives, an effective enforcement of these norms will pave way for prevention of marine pollution. One difficulty faced in the successful enforcement of its standards as to dangerous goods is the absence of a definition of dangerous goods. Even the patch work done by the Rotterdam Rules is not enough. The lack of a clear definition seems to undermine the proper application of liability norms for dangerous goods under the carriage of goods by sea scheme. Another pressing issue is the need to reformulate the limitation of liability provisions in order to give shippers also the benefit.

Chapter -7

PREVENTION OF ACCIDENTAL POLLUTION FROM SHIPS

Regulations to prevent maritime accidents originated earlier than regulations to prevent marine pollution from ships. In the early 18th Century regulations evolved with the objective of preventing collisions.[1] After the adoption of measures to avoid collisions, the need for ensuring maritime safety through norms for improving navigational safety and physical safety of ships through adoption of construction and design standards for ships began to gain attention. The growth in the environmental awareness of states and the need to balance economic growth with sustainable development has led to adoption of standards for prevention of marine pollution after 1970's. These regulations though developed in different contexts have one thing in common viz., prevention of accidental pollution from ships. This chapter is an overview of these regulations. The chapter classify these standards based on its importance for prevention of pollution and examine the legal issues involved.

Regulation of construction, design, equipment and manning standards is very crucial for prevention of pollution from ships carrying hazardous substances. During transboundary movement of hazardous substances the ships carrying these substances have to traverse national and international waters.

[1] The collision norms stands refined under the International Regulations for Preventing Collisions at sea, 1972. For text see 11 I.L.M.284 (1972)

This necessitates that these standards should be uniform in all national jurisdictions and must be generally accepted by the international community. Ever since its inception, the IMO's efforts has been aimed at achieving uniform construction, design, equipment and manning standards for ships. The practice of states promoting double standards especially in jurisdictions like U.S.A deserves critical examination in this study. Other safety norms are equally important in preventing accidental Pollution. The safety of navigation standards also requires examination. The standards of manning have been undergoing drastic changes. With the introduction of ISM standards, safety management of ships and avoiding human errors has gained support. But yet they are not free of problems. There are also problems with the enforcement of these standards that requires a critical examination in this chapter.

7.1 Construction and Design Standards for Prevention of Pollution

The regulatory framework for prevention of pollution from ships carrying hazardous substances through Construction and design standards, like regulation of marine pollution, is governed by a complex set of rules spread among a number of international conventions, codes and national regulations. More general requirements of stability, fire prevention and protection, electric installations for ensuring safety are addressed in general conventions like the SOLAS,[2] MARPOL,[3] and LOADLINE[4] conventions. Codes dealing with

[2] The International Convention of Safety of Life at Sea, 1974 as amended. For text see U.K.T.S 46 (1980)

different types of hazardous substances also prescribe special conditions for prevention of pollution like construction, stability and equipment standards. This leads to duplication and sometimes, overlapping of regulations resulting in lack of appreciation and understanding of norms among the ship owners, cargo owners, authorities directly concerned with its regulation and enforcement.

Among the design and construction standards for prevention of pollution, there are general standards for stability of ships, sub division, machinery electrical installations, and fire prevention measures dealt under the SOLAS scheme. These standards though adopted with objective of ensuring safety of life at sea, are also material for ensuring protection of environment also. Additionally standards relating to aforesaid aspects are also dealt under MARPOL Convention. But there are certain special measures which are very crucial to achievement of reducing accidental pollution.

Over the years, IMO has introduced several measures which are designed to ensure that ships can be controlled even if there is failure of its mechanism. As a matter of fact, failure of Steering gear of ships can lead to grounding of ships and other maritime casualties. Hence precautions to strengthen steering gear or its duplication was a need debated within IMO and

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[3] The International Convention for Prevention of Marine Pollution from Ships, 1973 as amended by its 1978 Protocol. For text see 12 I.L.M 1319.

[4] The International Convention on Load lines, 1995 is the latest version. For the text see T.I.A.S.No.6331

shipping community earlier to and since the *Amoco Cadiz* oil spill, in 1978. Thereafter the SOLAS Convention, 1974[5] has been amended to mandate duplication of Steering gear to take in to account concerns caused by *Amoco Cadiz* and Tanker safety and Prevention of Pollution conference. The main steering gear of new tankers is to comprise two or more identical power units and capable of operating independently.

Design of cargo ships can play crucial roles in preventing accidental pollution from ships. Protective location of segregated ballast tanks is an important method that can help pollution damage. This method involves placing of segregated ballast tanks around the ship's hull in such a way as to provide a protective layer around the cargo tanks in ships. The effectiveness of this method in reducing chances of pollution by preventing direct damage to cargo tanks has been made mandatory for Crude oil tankers and product carriers under MARPOL Convention.[6] The MARPOL also banned carriage of oil in the fork tank peak, the ship's most vulnerable point in the event of an accident.

Another major solution to reduce oil pollution from ships was made by the IMO in 1992 with the adoption of Double Hull requirements for ships or an alternative design approved by IMO for the same reason why the Protective location of segregated ballast tanks was adopted.[7] This requirement initially

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5 See Amendments to SOLAS Convention made in 1981.

6 The 1978 Protocol to the International Convention on Prevention of Pollution from Ships,1973, Annex I, Reg.13 E

7 *Id.*, Annex I, Reg.13 F

applied only to new ships in its inception and was extended to existing ships from 1995.[8] All tankers were be converted or taken out of service when they reached a certain age of 30 years old. But following the *Erika* incident off the coast of France in December 1999, IMO Member decided to accelerate the phase-out of single hull tankers. IMO again adopted a revised phase-out schedule for single hull tankers, which entered into force from 2003.[9] Again revisions have been made to phase out single-hull tankers by 2005.Again in 2003 the final phasing-out date for Category 1 tankers (pre-MARPOL tankers) is brought forward to 2005, from 2007. The final phasing-out date for category 2 and 3 tankers (MARPOL tankers and smaller tankers) is brought forward to 2010, from 2015. Under the revised regulation, the Condition Assessment Scheme (CAS) is to be made applicable to all single-hull tankers of 15 years, or older to verify the structural condition of the ship to see that documentary and survey procedures have been properly carried out and completed. Previously it was applicable to all Category 1 vessels continuing to trade after 2005 and all Category 2 vessels after 2010. With the entry in to force of revised Annex I, double bottom protection has been extended to protect pump room bottom from accidental damage. Meantime the revised Annex I also extended double bottom protection to pump rooms to prevent pollution during accidents.[10]

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[8] Id., Annex I, Reg.13 G, Revised Annex I,Reg.20

[9] See 2001 amendments to MARPOL 73/78

[10] MARPOL Convention,1973/78, Revised Annex I, Reg.23

The size of tanks also has great influence on escape of oil and liquid cargoes in the event of causalities like stranding. So cargo tanks should be limited in size and arranged in such ways that, in case of damage to side or bottom of the ship the hypothetical outflow of cargo to remain minimum. Regulations creating thrust on this aspect has also become part of MARPOL, 1973 as a pollution prevention measure requiring new ships to comply with subdivision and stability.[11] Measures also exist to enhance the structural safety and resistance to flooding of bulk carriers. Such carriers of 150m in length and upwards, carrying high density dry bulk categories have to fulfill special standards for damage stability and flotation, structure of bulk heads and double bottoms, overall longitudinal strength in the flooded state, hold loading, cargo density declarations, and provision of a loading instrument.[12]

The position in the U.S. presents a picture characterised by unilateralism. The U.S. adopts construction and design standards for ships which are stringent than international standards. In U.S.A, the Tank Vessel Act,1936[13] was the primary statute for regulating tank vessels used for carrying dangerous cargo like oil and other hazardous substances. After the *Torrey Canyon* incident, the U.S Congress enacted the Ports and Waterways Safety Act, 1972 (PWSA)[14]which focused on construction and design standards for

[11] *Id.*,

[12] *Id.*,

[13] 49 Stat. 1889.

[14] 33 U.S.C. §§ 1221- 1232)

ships. The PWSA was further amended in 1978 by Port Tank Safety Act (PTSA)[15]to impose certain stringent vessel safety and pollution prevention measures. These changes were made in response to a series of tank vessel incidents in and around the U.S during the latter half of 1970's. These standards prescribed requirements higher than the international norms. The Oil Pollution Act,(OPA), which was introduced in 1990 also imposed construction and equipment standards for vessels carrying oil like double hulls. When these standards were adopted under OPA, they were not adopted in international schemes. So they were considered higher and amounted to deviation from the international norms.

The problemscreated by federal pre-emption is another issue that is prevalent under the U.S. system. Under the federal system followed in U.S.A power to make law not expressly delegated to the federal government, is reserved for the states.[16]Since maritime affairs and prevention of pollution from ships carrying hazardous substances is a matter of local concern states have been enthusiastic in stipulating additional conditions than those stipulated under federal law. This raised the issue of federal pre-emption which became a contentious issue decided in cases. But the judicial trend was to place a check on

[15] Pub. L. 95-474, Oct. 17, 1978

[16] The makers of US Constitution were keen to make states stronger than the centre. Hence residuary powers were given to the states. See Vishnoo Bhagwan and Vidhya .P.Bhushan, *World Constitutions*, Sterling Publishers Pvt. Ltd.,(1995), p.18.

this exercise of regulatory jurisdiction by states by strictly interpreting in favour of federal pre-emption to discourage states unilateral regulation of construction and design standards unless congressional intent was not clear or absent.

An important decision of the U.S. Supreme Court that shows such an approach is *Ray v. Atlantic Richfield Co.*[17] In this case certain rules made by State of Washington regulating the design, size and movement of oil tankers in Puget Sound was challenged by owners and operators of oil tankers and oil refinery in the state . The state of Washington's statutes required tankers of certain size to either satisfy certain state imposed design standards or use Tug escorts in addition to the requirement of carrying state licensed pilot while navigating the area. The District Court held that the Washington statutes were invalid under the Supremacy Clause of the U.S. Constitution, as those rules were pre-empted by the Ports and Waterways Act, 1972, the federal statute that dealt with the construction and design of oil tanker ships. On appeal the Supreme Court invalidated the Washington state law that attempted to govern oil tanker design, size and movement inside the Puget Sound. At the same time validated certain operational regulations enacted by state of Washington. The court stated that the need for national uniformity in the area of standards for tanker operations, is not so great as the need for uniformity in standards governing tanker operation and design, for while a tanker can under some circumstances alter its operating practices to conform to the requirements of

17.435.U.S. 151(1978)

the State whose territorial waters it is traversing, it cannot alter its construction or design.[18] Accordingly, the absence of uniform design and construction requirements may be a far more serious impediment to the tanker industry than a lack of uniformity with respect to operations.

The *Exxon Valdez* incident marked a turning point for regulation of construction of design standards under the U.S. system. The incident created more pressure on the US congress to adopt more standards in response to the devastating pollution damage. The immediate response of the Congress in this regard was the Oil pollution Act, 1990.[19] This Act represents an emerging trend from the part of Congress viz. to deviate from the international scheme and to adopt a policy of unilateralism towards prevention of pollution from cargo ships .Under the Act , the Congress introduced additional conditions of construction for oil tanker ships like double hull standard which then was not an international norm under the MARPOL. Another noteworthy feature of the Act that has implications for the construction standards for Oil tankers was the savings clause incorporated in the OPA allowing states to adopt additional standards. Thus the language of OPA's saving clause allows states to regulate matters typically reserved for the federal government such as construction standards for ships involved with carriage of hazardous substances. Various states of the U.S. also adopted stringent standards after the *Exxon Valdez*

[18] *Ibid.*,

[19] 10.CRS Report, Liability Provisions in State Oil spill laws : A brief Summary , Oct. 1,1990.

incident for prevention of vessel source pollution. Most contentious of the state responses in this regard was the 'Best Achievable protection 'standards adopted for preventing oil spill damages by state of Washington. This once again reopened the issue of pre-emption and validity of state regulation of construction , design , manning and other pollution prevention standards in *U.S. v. Locke*.[20]

The matter was finally decided by the U.S. Supreme Court in *INTERTANKO v. Lowry*.[21] The petitioner INTERTANKO sought a declaratory and injunctive relief against state and local officials of Washington responsible for enforcing the BAP regulations. Upholding the regulations, the District Court rejected INTERTANKO'S arguments that the BAP standards invaded an area long pre-empted by the Federal Government. At the appeal stage, the United States intervened on INTERTANKO's behalf, contending that the District Court's ruling failed to give sufficient weight to the substantial foreign affairs interests of the Federal Government. The appellate court validated all the state standards except the one relating to certain navigational and towing requirements. On appeal to the Supreme Court it was held that state has enacted legislation in an area where federal interest has been manifest and established since earlier times through Tank vessel Act, PWSA etc. The Court referred to its own earlier decision in *Ray's Case* which held that the PWSA

[20] 529U.S.89(2000)

[21] 947 F.Supp.1484(WD Wash.1996)

and Coast Guard regulations promulgated under that Act pre-empted Washington's pilotage requirement, limitation on tanker size, and tanker design and construction rules the court observed that same decision controls this case also. The validity of savings clause under OPA was also assailed in this case. But the court found that since the clause is coming in title I, its application is limited to regulations governing liability and compensation for oil pollution damage and does not extend to vessel operation, design, and manning dealt under Title II, PWSA. Hence once again established that only federal government can prescribe the design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of tankers.

On the question of Washington state's training requirements Court stated that they do not address matters unique to Washington waters, but imposes requirements that control the staffing, operation, and manning of a tanker outside of those waters. The training and drill requirements pertain to "operation" and "personnel qualifications" and so are pre-empted. That training is a field reserved to the Federal Government. This is also confirmed by the fact that STCW Convention addresses crew "training" and "qualification" requirements, and that the United States has enacted crew training regulations on a tanker's crew is not limited to governing local traffic or local peculiarities.

The legality of savings clause in OPA, 1990 allowing states power to prescribe additional standards was also tested before the Supreme Court of the

U.S in *US. v. Locke*.[22]This appeal arose from an appellate decision of ninth court of circuit challenging the decision made by the District court of Washington in a suit filed by the INTERTANKO (International Association of Independent tanker Owners). The suit was moved by INTERTANKO seeking a declaratory and injunctive relief against the state challenging enforcement of certain rules made by the state of Washington imposing tanker design, equipment reporting and operating requirements on the ground of federal pre-emption. The District court upheld the rules .On appeal US intervened on behalf of the INTERTANKO. The court of appeal ruled that federal pre-emption affects only rules requiring tankers to install certain towing and navigational requirements.

On appeal the U.S. supreme Court reversing the district Court decision held that state regulations stipulating training requirements for crew, english language proficiency and navigational watch requirements were pre-empted by federal law contained in which required the U.S. Coast Guard to issue regulations for the design, construction, alteration, repair, maintenance, operations, equipment ,personal qualifications and manning of tankers. Certain state rules which required tankers to report certain marine casualties alone was held pre -empted by federal legislation on the same subject.

The Strict approach of the U.K towards prevention of pollution is evident in its commitment towards implementation of construction and design

[22] 146 L.Ed 2d.69

standards also. The U.K has implemented most of the international construction and design standards for prevention of pollution ships involved in transboundary movement of hazardous substances[23]. This strict approach of the U.K. has sometimes resulted in adoption of double standards for preventing pollution.[24] Its implementation of double bottom standards for oil tanker ships is notable in this regard. In adopting these standards IMO allowed states to give exemption to certain ships from this criterion. But U.K did not allow exemption because of its strict policy. The special standards mandated by SOLAS and MARPOL Convention have been implemented in India through the merchant shipping rules adopted under the Merchant Shipping Act,1958.[25] The Merchant Shipping (Amendment) Act, 2013 introduced anti fouling system requirements.

7.2 Pollution Prevention through Regulation of Navigation

Navigational errors or deficiencies can cause maritime accidents. Since 1960's great attention have been given by the IMO to improve navigational safety. The IMO introduced measures to improve navigational safety under the

[23] The construction and safety requirements for cargo ships mandated by the SOLAS Convention is implemented in the U.K. under the Merchant Shipping (Control of Pollution) (SOLAS) Order 1998,. See also the Merchant Shipping (International Safety Management) (ISM Code) Regulations 1998 .

[24] The Merchant Shipping (Prevention of Oil Pollution) Regulations , 1996 , Reg.30 & 31

[25] The Merchant Shipping (Cargo Ship Construction and Survey) Rules, 1991

SOLAS Convention, 1960.[26] The international regulations for preventing collisions at sea and the training and watch keeping standards for seafarers also address the flag and coastal states authority to regulate navigational safety. These measures, though adopted to promote maritime safety through effective navigation, it adds to prevention of accidents.

Among these IMO measures the most important for prevention of marine pollution from ships carrying hazardous substances relate to restrictions on movement of ships dealt under the SOLAS Convention, 1974. Certain provisions especially vessel routeing, reporting of ships and vessel traffic systems are very crucial for safety of navigation and prevention of pollution in avoidance of collisions. The ship reporting schemes also cater to the need of ships in distress by providing instructions as to its location and information as to matters affecting safety.[27] Coastal states may also adopt Vessel Traffic Systems varying from simple information messages to ships navigating certain areas, such as position of other traffic or meteorological hazard warnings to extensive management of traffic within a port or other path way.[28] Specific jurisdiction in this regard is also bestowed on coastal states under the UNCLOS regime.

[26] See The SOLAS Convention, 1960 introduced predetermined routes in this regard.

[27] The SOLAS Convention,2002, Chapter II, Reg.5

[28] See IMO Resolution No.857(20), and IMO guidelines for Vessel Traffic Systems

The Collision Regulations, 1972[29] adopted with the objective of prevention of collisions at sea also goes further in enhancing the safety of navigation. Its guidelines about behaviour of vessels in or near traffic separation schemes and precautions to be followed while crossing traffic lanes will help prevention of pollution.[30] The requirements of watch keeping for seafarers in relation to radio communication, age, experience and certification can all have a say in this regard.

Vessel Traffic System has been established under domestic systems, like the U.K. adhering to the international and European community policies.[31]The Maritime and Coast Guard Authority in the U.K is made the competent authority for its formulation and implementation.[32] Such schemes can be instituted to serve as an information service, traffic organisation and navigation assistance service. The U.K scheme also lay down strict criteria for approval of such schemes.[33]

7.3 Manning of Ships

Traditionally, international regulation on manning of ships did not mirror the need for prevention of pollution regulation adopted under International

[29] The International Regulations for Preventing Collisions at Sea, 1972 (also referred to as COLREGS,1972). For text of the convention, see 11 I.L.M.284 (1972)

[30] See COLREGS, 1972 as amended, r.10.

[31] EU vessel Traffic Monitoring Directive, 2002/59/EU .

[32] See Marine Guidance Note No.401.

[33] See the Harbour Act,1964. The Act allow to devise such schemes in harbours and ports

Labour Organisation[34] was limited to improving professional competency skills and working condition of seafarers.[35] After the establishment of IMO the environmental awareness that started in 1970's as reflected in MARPOL and the International Conference on Tanker Safety and Pollution Prevention gave impetus to focus more attention on prevention of marine pollution from ships by motivating seafarers. The IMO adopted International Convention on Standards for Training, Certification and Watch Keeping of Seafarers in 1978[36] to lay down basic conditions of training certification and watch keeping for responsible officers on board sea going ships. The convention additionally contains special mandatory conditions for training and qualification of masters, officers and ratings for ships carrying hazardous substances.

Maritime casualties like *Exxon Valdez*, and *Herald of Enterprise* that occurred during the beginning of 1990's have thrown light on the inadequacies of then existing manning standards. International initiatives in this area started realising the co –relation between human fatigue and accidents.[37] Revision of the STCW Convention was also made to insist special training requirements to

[34] Hereinafter called "ILO"

[35] See David W. Abecasis, Oil Pollution from Ships , London Stevenson and Sons, London, (1985),pp. 66-67 for details of ILO measures.

[36] International Convention on Standards for Training, Certification and Watch Keeping of Seafarers, 1978, herein after referred to as "The STCW Convention". For text see U.K.T.S (50) 1984.

[37] See IMO guidance on Fatigue and Management, MSC/Circ.101412 dtd. June 2001.

prevent accidental pollution from ships.[38] The ILO Convention on Seafarers Hours of Work and the Manning of Ships, 1996 requires governments to establish a work hour regime for crew members fixing rest and work hours. The recent addition to maritime safety drive made under the International Ship safety Management Code or ISM also tends to address the competence of crew and the need to plan for avoidance of human errors that affect the operational and functional safety aspects of ships. This measure is also relevant from the point of view of prevention of pollution.[39] The new Manila amendments brought to STCW, Convention in 2010 have further enhanced the training requirements to accommodate advancements in technology and computerisation.

At present, there are no measures that check the main cause of human fatigue namely harsh ship board environments that are noisy, dimly lit causing high levels of vibration. These conditions disrupt sleep, cause fatigue and intensify its effects. Unfortunately, ship design regulations do not adequately address this human element. Automation of shipping can be of help in this respect. Maritime states like the U.S.[40] has revealed the effectiveness of new ship designs to arrest and check human fatigue through ergonomic design and automation of crew responsibilities.

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[38] ILO Convention No.20.

[39] For detailed discussion on this see Chapter 11 of this thesis.

[40] Marine Board ,Crew Size and Maritime safety Commission on Engineering and Technical Systems, (1990) at p.74

It may be noted that none of the international measures contain guidelines on safe levels of manning of ships. There are elaborate standards for training and certification of crew. The current level of standard for manning is to be determined by flag state administration. It is suggested that the IMO has to explore an internationally acceptable method for determining safe manning levels after making an objective analysis of functional responsibilities on board ships.[41] IMO shall also initiate a comprehensive study to apply ergonomic principles to design ships to reduce human fatigue.

7.4 Fire Safety Measures for Reducing Accidental Pollution.

Fire explosion aboard cargo ships is an imminent danger affecting safety of ships carrying hazardous substances and cause pollution hazards. Hence fire protection, prevention and extinction requirements have received special importance in regulations on transport of hazardous substances preventing pollution of the seas .

SOLAS Convention contains fire precautions in Chapter II.[42] Chapter II contains detailed and specific fire safety measures for cargo ships and tankers like restricted use of combustible materials, detection of any fire in the zone of origin,

[41] Scott R. Calhoun Lt., *USCG Engineering Human Factors in Ship Design: Preventing and Reducing Ship Board Operator Fatigue*, U.S .Coast Guard Research Project.

[42] See SOLAS Convention, 1974, chapter II (2). These measures were introduced in 1981 after the IMO adopted A.327(IX) Recommendation concerning fire safety requirements for cargo ships.

containment and extinction of any fire in the space of origin, protection of the means of escape or of access for fire-fighting purposes, ready availability of fire-extinguishing appliances, minimization of the possibility of ignition of flammable cargo vapour. The requirement of Inert Gas Systems mandated under SOLAS has useful role in preventing major explosions involving ships. Another addition to these measures is Fire Safety Systems Code, which is made mandatory under the SOLAS convention for cargo ships to deal with detailed specifications for fire safety systems.[43] In respect of goods carried as cargo in package form and falling within the purview of IMDG Code, fire precautions have been made mandatory under SOLAS Convention.[44] MARPOL Convention also contains provisions on fire safety for specific cargo regulations attached in its annexes.[45]

But the existences of parallel measures in other international conventions to address fire safety aspects make its regulation complex and less understandable. Another addition to these measures is Fire Safety Systems Code, which is made mandatory under the SOLAS convention for cargo ships to deal with detailed specifications for fire safety systems.[46] In respect of goods carried as cargo in package form and falling within the purview of IMDG Code, fire precautions have been made mandatory under SOLAS

[43] See Amendment to SOLAS convention,2000

[44] Refer IMDG Code, 1996, Chapter,7 Reg.3

[45] See the MARPOL Convention, 1973, Annex I

[46] See Amendment to SOLAS Convention, 2000

Convention.[47] MARPOL Convention also contains provisions on fire safety for specific cargo regulations attached in its annexes.[48]

7.5 Indian Law governing Prevention of Accidental Pollution

The Indian law relating to construction and design for the purpose of ensuring general safety and prevention of marine pollution is contained in Merchant Shipping (Cargo Ship Construction and Survey) Rules, 1991. In enacting these rules the Ministry of Surface transport has been able to consolidate the various general construction and design regulations in a single instrument. The minimum international standards for construction, various types of equipments and stability required under SOLAS Convention, MARPOL Convention and LOADLINES Convention is made a legal obligation under these Rules. But specific construction requirements for construction and equipment for transport of dangerous goods in packaged form, solid bulk cargoes including deck cargo that in addition to ensuring safe carriage , are also relevant for prevention of marine pollution does not find place in these rules .They are dealt separately under the Merchant Shipping (Carriage of Cargo) Rules, 1995.

Unlike the slow attitude of Indian legislature towards implementation of other international measures the attitude towards adoption of construction, design equipment standards has been responsive. Unless Indian ships are

[47] Refer IMDG Code, 1996, Chapter,7 Reg.3

[48] See MARPOL Convention, 1973, Annex I

constructed and equipped in accordance with international standards they may be denied access to foreign ports. So India has been active in participating in international conventions and adopting legislations to give effect to them. It is a merit that Indian legislature has been able to codify international standards spread out in several measures and keeps the Merchant Shipping Act, 1958 updated in this respect. The Act was amended in 2003, and 2004 mainly to accommodate changes in this regard. But multiplicity of regulations has been a serious issue that affected Indian law also.

In India, the construction standards for ships involved in tranboundary movement of hazardous substances have been consolidated in rules adopted under the Merchant Shipping Act, 1958[49] Indian merchant shipping legislation has also adopted ship routeing systems in Bay of Bengal Arabian Sea and the Indian ocean requiring ships to report to report the ship's position once daily using the Indian Ship Position and Information and reporting System (INSPIRES) maintained by the Government of India as a precautionary measure to prevent accidents. The scope of the rules regulation ship routeing is also wide enough to adopt any of the ship routeing measures adopted by the IMO. Such measures can mean any system of one or more routes or routeing measures aimed at reducing the risk of collisions and groundings and may

[49] See the Merchant Shipping (Cargo Ship Construction and Survey) Rules,1974 as superseded by the Merchant Shipping (Cargo Ship Construction and Survey) Rules,1991. These rules are made under Sec.284 and 299 B , Merchant Shipping Act,1958

include traffic separation scheme, two way routes, recommended tracks, areas to be avoided, inshore traffic zones, precautionary measures and deep water routes as adopted y the IMO.

Manning Standards of Indian Ships also closely follow the international scheme. Maintaining the efficiency and welfare of Indian seafarers has not received priority under Indian law. Training of seafarers for prevention of pollution gained attention only with the adoption of rules to give effect to international standards in 1998.[50]The Rules accommodated the STCW Convention, 1978 as amended in 1995. The Rules incorporate special training requirements for crew depending on the special type of cargo carried in ships. Such training also focus on improving duties and responsibilities relating to cargo, equipments and fire fighting.[51]

7.6 Conclusion

Regulation of construction design, equipment and manning standards one area where due to practical reasons, it is imperative to have uniform standards UNCLOS has also accepted this in principle. The existence of uniform standards is highly essential for international shipping. This is to avoid difficulty that may be faced by ships if conditions for physical safety differs from one jurisdiction to another. But the practice of states shows a different

[50] Merchant Shipping (Standards of Training, Certification and Watch keeping of Seafarers) Rules, 1998.

[51] *Ibid.*, Chapter V, r. 30.

trend. Even though outward appearance of regulatory scenario in the domestic jurisdictions, seems to give weight to international standards but regulatory tactics adopted by states like the U.S. promotes double standard system. This will prove dangerous in the long run for maritime trade.

The implementation strategy in the European community and the states like the U.K. is notorious for adopting a unilateral strategy in this urge to accelerate implementation of international standards. There is also in disparity among states as to standards at a particular point of time. The implementation of double bottom standard and phasing out of single hull tankers itself is a live example this. Coastal states, even though they are bound by MARPOL standards are adopting unilateral approach and deviating from IMO standards. There must be proper sanctions to compel obedience on the part of member states.

The complex nature of international scheme which has developed in a piece meal fashion in reactions to major casualties is another draw back. As a result there is lack of uniformity in the development of norms. Under the current scheme, regulations are spread in a number of instruments developed with different objectives in focus viz., safety of life, marine pollution, safety of cargo, safety of ship, safety of navigation etc. Due to lack of holistic approach towards regulation for prevention of pollution these regulations remain separate and unrelated. This is also due to lack of proper planning and thorough understanding of the subject matter. In order to bring clarity it is necessary to

promote a study of regulations in this regard and take measures to codify the standards and prevent duplication and overlapping.

Chapter -8

CIVIL LIABILITY FOR ACCIDENTAL POLLUTION DAMAGE

The civil liability regime for marine pollution damage from ships carrying hazardous substances emerged as a reaction to many obstacles in claiming compensation by applying ordinary principles of civil law. The scheme enable victims of pollution damage to make financial claims against ship owning interests and the global cargo industry or producers of hazardous substances like oil, HNS and chemicals. The evolving and contested parameters of civil liability for accidental pollution damage set by the international pollution liability conventions needs a critical analysis in this context.

Even though the liability regime can be applauded for its equitable consideration of claims for environmental pollution damage, the scheme appears to be restricted due to narrow concept of pollution damage underlying the scheme.[1] Admissibility of claims to environmental pollution damage remains a key challenge to the liability framework in the absence of specific standards to determine cost of reinstatement and damage to ecological interests. Despite the search for a universally applicable frame work of liability and compensation regime, the maritime community continues to face

[1] Michael Mason, "Civil Liability For Oil Pollution Damage: Examining the Evolving Scope for Environmental Compensation in the International Regime", 27 *Marine Policy*, (2003),pp. 1–12

the dichotomy between the US approach and that adopted by the rest of the world due to different liability standards, limits and scope of pollution damage.[2] Recently, the stand of the European community is also to deviate from the international scheme. This makes the call for a relook at the entire scheme and to examine the problems with the existing concept of civil liability and in order to bring unified international regime applicable to nations alike.

8.1 Evolution of the Scheme of Civil Liability for Pollution Damage

Until the late 1960s, there was no international law to address the issue of liability for pollution damage and compensation arising out of transboundary movement hazardous substances.[3] Claimants for pollution damage had to rely on the ordinary principles of civil law, which was generally based on the fault of the responsible party. It was not at all easy for persons affected to prove such fault. The Common law principles till then applied to resolve liability issues approached pollution damage from ships by applying tortious principles of negligence, trespass and public nuisance which in practice proved difficult in its application to marine pollution cases.[4] There was no clear perception

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2 Inho Kim, "*A comparison between the International and US Regimes Regulating Oil Pollution Liability and Compensation"27 Marine Policy*, (2003), pp 265–279 at p.265

3 For a detailed review of Oil Pollution Regime see Chao Wu, "Liability and Compensation for Oil Pollution Damage: Some Current Threats to the International Convention System", *Spill Science & Technology Bulletin*, Vol. 7, Nos. 1–2, (2002), pp. 105–112

4 See also James F.Wall, "Intergovernmental Oil Pollution Liability and Compensation :Theory and Practice," *Marine Policy*, (1993), pp. 473-478

about the principle underlying responsibility for pollution damage, basis for liability, limitation of liability and scope of recoverable damage etc. Different legal systems followed different approaches and states were unwilling and at the same time incapable of remedying transboundary pollution damage. This, together with jurisdictional uncertainty arising from the international nature of transportation of hazardous substances, meant that many of those who suffered damage by pollution had no real hope of obtaining justice.

In 1967 the massive pollution caused by the *Torrey Canyon Incident* revealed to the world the extent of damage that might result from carriage of oil by sea and the injustice which claimants might suffer due to the absence of principles to decide liability for damage suffered pursuant to transport of hazardous substances in ships[5] This and similar maritime casualties have, in fact, been catalysts for the development of oil pollution liability regimes.

After much deliberations, the IMO created the first international regime establishing regime to deal with the liability and compensation arising out of oil pollution incidents .This regime consisted of the 1969 International Convention on Civil Liability for Oil Pollution Damage[6] and the 1971 International Convention on the International Fund for Compensation for Oil

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5 *Ibid*.

6 International Convention on Civil Liability for Oil Pollution Damage, November 29, 1969, 973 U.N.T.S. 3 (hereinafter called The Civil Liability Convention). The Convention entered into force on June 19, 1975.

Pollution Damage.[7] The CLC, 1969 places liability for oil pollution damage squarely on the registered owner of the ship from which the oil escapes or is discharged. Through this regime the IMO inducted the strict liability principle subject to limitation of liability, guaranteed by the financial guarantee to form the basis for addressing marine oil pollution damage from ships.[8] The scheme initially evolved to deal with oil pollution has thereafter become the basis for liability and compensation for other hazardous substances like HNS,[9] hazardous waste,[10] and radioactive substances.[11]

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[7] International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, December 18, 1971, 1110 U.N.T.S. 57 (hereinafter called The Fund Convention). The Convention entered into force on October 16, 1978.

[8] *Supra* n.2

[9] International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (hereinafter called the HNS Convention), (1996) . The text of the convention printed at 35 ILM 1406.

[10] 1999 Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Liability Protocol) UNEP/CHW.1//WG.1/9/2

[11] Two international regimes can be identified that deal with civil liability for radioactive pollution damage The first regime collectively referred to as the Paris regime, is regionally linked to European countries, and it comprises the 1960 Convention on Third Party Liability in the Field of Nuclear Energy (1960 Paris Convention), as amended by the 1964, 1982 and 2004 Protocols, and supplemented by the 1963 Supplementary Convention The second regime, the Vienna regime, rests on the 1963 Convention on Civil Liability for Nuclear Damage (1963 Vienna Convention) as amended by the 1997 Protocol.

After *the Amoco Cadiz* incident of 1978[12], recognising that liability limits of the ion pollution liability and compensation scheme was too low and inadequate to give compensation during major oil spills, IMO revised the liability limits of ship owners and cargo interests by adopting protocols to CLC and Fund Convention in 1984. In 1992, also the IMO created new protocols to the CLC and Fund Convention identical to the 1984 Protocols only to facilitate the fulfillment of the requirements for the entry into force of the 1984 Protocols.[13] Further amendments were made to raise the liability limits in 2000 by the IMO. And a third tier of compensation was introduced in 2003 by way of a supplementary protocol.

The stand of the U.S. and certain developments within European Community posed a blow to the International civil liability regime. The U.S. maintains a stand in contrast to the international one. In the U.S., the *Exxon Valdez* Incident,(1989) raised great concern about the adequacy of the international regime. The U.S. instead of becoming a party to the international scheme decided to take a go alone policy. The U.S. through the Oil Pollution

[12] On March 16, 1978, *the Amoco Cadiz* grounded on Portsall Rocks off the Brittany Coast of France, spilling 1,619,000 barrels (227,000 tons) of crude oil. The oil spill polluted approximately 200 miles of the Brittany coastline.

[13] Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, hereinafter called '1992 Liability Convention'. For text see [1996] ATS No 2, It is in force from 30 May 1996 and Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, hereinafter called '1992 Fund Convention' It is in force since 30 May 1996. For text see [1996] A.T.S No 3

Act, 1990[14] adopted a scheme which is substantially different from the international scheme in terms of its concept of liability, liability limits, responsible persons and recoverable limits.

The European Community, which originally placed complete reliance on the international scheme, after some major pollution incidents inside its waters like *ERIK*,(1999) and *Prestige* (2002), began to express dissatisfaction with the international scheme.[15] Not satisfied with the piecemeal approach towards environmental damage laws, EU adopted Environmental law directive aimed at establishing a common framework for remedying environmental damage. As part of this move towards common policy EU introduced criminal penalty for ship source accidental pollution discharges in to EU waters.[16]

This scheme of liability initially applied to marine oil Pollution damage from ships has later formed the basis for establishment of liability and compensation regime for pollution damage caused by other hazardous substances also. The Basel Convention adopted in 1989 establishes a liability and

[14] The Oil Pollution Act, 1990 hereinafter called OPA , Pub. L. No. 101-380, 104 Stat. 484 (1990)

[15] After *The Erika Incident (*1999), and *The Prestige Incident* (2002) EU introduced higher limitations limits and lobbied for the same among its member states.

[16] See Environmental Law Directive dtd., 21 April,2004, Directive 2004/35/CE. It came in to effect on 30 April 2007. See also O.G Anthony `Criminalization Of Seafarers for Accidental Discharge of Oil: Is there Justification in International Law for Criminal Sanction for Negligent or Accidental Pollution of the Sea?' 37 *Journal of Maritime law and Commerce*,(2006),p 226. Directive 2005/35/EC and Framework Decision 2005/667/JHA imposes criminal sanctions for accidental discharges.

compensation regime for Hazardous waste carried through sea. Similar scheme exists for Hazardous and Noxious Substances, and radioactive substances.

8.2 The Scope of Civil liability Regime for Marine Pollution Damage

Liability for pollution damage to marine environment from carriage of hazardous substances in ships was dealt under ordinary civil law. Civil law which based its remedies on the tortious principles of nuisance, negligence and trespass allowed remedy only if there was fault on the part of the responsible party. But it was not at all easy for persons affected to prove such fault. The traditional scheme dealt with personal and property damage and did not address environmental damage. This, together with jurisdictional uncertainty arising from the international nature of shipping, meant that many of those who suffered damage by pollution was left without any remedy and led to adoption of new scheme of civil liability and compensation.

The current civil liability scheme is significant for several radical and innovative features in its application to determining liability for pollution damage. For instance the fundamental principle underlying the CLC,1969 is that of strict liability. According to the scheme, the registered owner of the ship from which oil escapes is strictly liable for oil pollution damage.[17] This liability is strict in the sense that the claimant has to demonstrate that damage

[17] *Supra* n.13, Art. 3

was suffered as a result of the spill.[18] This dispenses the difficulty with the burden of proving fault on the part of ship owner and there is no need to prove the ship owners negligence.

Another major difficulty that has been done away with by the current scheme is the attempt to attract all litigation in a place where the pollution incident actually occurred.[19] The intent here is to facilitate prompt, and equitable compensation payments to victims for damage suffered in the territory, including the territorial sea, and EEZ of any contracting state.[20] In regard to geographical scope, the Oil Pollution Act, 1990 (U.S.A.) adopts the same criteria followed by the international scheme.[21] This consolidates at least a global recognition that marine pollution liability rules for oil pollution

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[18] *Ibid*

[19] Article 2 deals with the geographical scope. Initially under the 1969 CLC it was limited to territorial waters. At that time there was no international consensus as to limit of territorial waters . The 1992 conventions both CLC and Fund Convention extended it to EEZ. At the 1984 IMO London conference on maritime liability and compensation, developing states successfully lobbied for an amendment to the oil pollution liability conventions to recognize the EEZ rights accorded to coastal states by the LOS Convention, 1982 Moreover, Article 56(1) (b)(iii) of the Law of the sea convention recognized for the first time coastal state jurisdiction in the EEZ over protection and preservation of the marine environment. This broadened the geographical scope of the liability conventions at the 1984 conference extending it to EEZ which stood accommodated to 1992 protocols also.

[20] Churchill RR, & Lowe AV, *The Law of the Sea*, Manchester University Press, Manchester, (1999), pp. 160-161

[21] *Supra* n.14

damage accept a common standard. At the same time the geographical criteria adopted here is not without doubts. The limitation of geographical scope of the scheme promotes confusion in its application to the concept of marine protected areas. Designation of marine protected areas has gained great currency in the light of international urge towards protecting marine environment pollution from ships under UNCLOS, MARPOL and several other IMO initiatives.[22] And the different international norms allow coastal states to designate such areas despite distinction as to geographical limits. In this context there is need to re-examine the geographical scope of the pollution liability and compensation scheme and also the economic impact of the concept on this scheme which necessitates high reinstatement costs for pollution damage.[23]

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[22] See UNCLOS, 1982, Art. 211(6), The International Convention for the Prevention of Pollution from Ships (MARPOL), Annex I. The United Nations Environment Programme, and the Regional Seas Programme allows coastal states to designate special areas allowing them to prescribe particular standards in protected marine areas through protocols to its East African, Mediterranean, South-East Pacific and Caribbean Conventions. IMO initiative to designate Particularly Sensitive Sea Areas (PSSAs)-marine protected areas established to protect recognized ecological or socio-economic or scientific values also need attention here. The 1992 United Nations Conference on Environment and Development (UNCED), notably the Convention on Biological Diversity and Chapter 17 ('Protection of the Oceans') of the sustainable development programme, and Agenda 21. UNCED Rio Declaration also endorses the concept.

[23] Wonham J., "Agenda 21 and sea-based pollution: opportunity or apathy?" 22 *Marine Policy* ,(1998), pp.375–91.See also De La Fayette L, "The Marine

Another aspect of marine pollution liability scheme that limits its scope is its application to pollution damage occurring in marine common spaces like the high seas. Responses on the high seas to an oil spill would in principle qualify for compensation only if they succeed in preventing or reducing pollution damage within the territorial sea or EEZ of a contracting state.[24] This in effect restrict the liability scheme to pollution damage that create impact on national interests and removes the incentive for strict compliance with pollution prevention norms in marine common spaces. This materially goes against the general international trend in protecting the marine environment of the high seas from pollution from ships reflected in the UNCLOS, Intervention Convention, 1969 and MARPOL, 1973[25] So in this era where transnational environmental liability is keeping on expanding the civil liability regime for

Environment Protection Committee: The conjunction of the Law of the Sea and international environmental law", 16 *International Journal of Maritime and Commercial Law* ,(2001), pp.155–238.

[24] For a discussion see Micheal Mason, "Civil Liability for Oil Pollution Damage: Examining the Evolving Scope for Environmental Compensation in The International Regime", 27 *Marine Policy*, (2003), pp.1-12

[25] See UNCLOS, 1982, Art. 221(1). It affords coastal states the right of intervention on the high seas in the case of maritime casualties threatening harmful pollution Article 218 (1) dealing with the right of port states to take legal proceedings against visiting vessels alleged to have illegally discharged oil outside the state's own maritime zones, including the high seas. See also Keselj T., "Port state jurisdiction in respect of pollution from ships: the 1992 United Nations Convention on the Law of the Sea and the Memoranda of Understanding",30 *Ocean Development and International Law* ,(1999), pp. 127–60.

pollution damage will be questioned if it limits itself to damage occurring within coastal maritime zones.

The liability is also made subject to provisions for limitation of liability. Claimants are allowed to breach that limit and sue for more if the incident is a result of the 'actual fault or privity' of the owner. Generally the persons responsible is relieved of their liability if he can prove that pollution damage resulted from certain accepted exceptions viz., war, involvement of third party or the negligence or other wrongful act of an authority in its function of maintaining navigational aids.[26] The concept has been followed for other hazardous substances with slight variations as to the policy underlying them, responsible parties, and liability limits.[27]

The current international regime establishing civil liability is not uniformly followed among states. There exists conflict between norms adopted to fix liability for accidental pollution damage and criminal liability for marine pollution damage within the European community and states like U.S. Shortly after *ERIKA* and *Prestige* incidents acknowledge that international civil liability scheme lacks deterrence to check pollution of marine environment and

[26] The Civil Liability Convention, 1992, Art.10.

[27] See The Civil Liability Convention, 1992 Art. 5(2), Basel Protocol, Art. 5, Environmental Protocol Annex 6, Art. 9(3). The person responsible may change depending on the substance. In the case of Hazardous waste responsibility is thrust on importer. But basic policy remains same.

imposed criminal penalties for pollution discharges in to its waters.[28] The U.S. has a long history of criminal sanctions for violation of pollution standards.[29]In this context it is worth understanding that there is no legal basis for imposing criminal sanctions for accidental pollution damage under international law. In addressing this issue international instruments dealing with regulation of pollution discharge standards viz., MARPOL and UNCLOS may be looked in to. In the matter of marine pollution from ships the prohibitions for minimization of intentional pollution of marine environment and accidental pollution caused by oil and other harmful substances are laid down under the MARPOL 1973/78.[30] MARPOL as a general rule prohibit discharges of polluting substances subject to certain circumstances. In all other circumstances violation of MARPOL prohibitions attract penalties. But in regard to accidental pollution MARPOL follows a different approach. Most accidental discharges breach conditions prohibiting discharges of oil or spills

[28] See European Community Directive 2005/35/EC and Framework Decision 2005/667/JHA supplementing this Directive provide for criminal penalties.

[29] Statutes such as the Refuse Act of 1899 and the Clean Water Act as amended by OPA, 1990 provide criminal penalties for pollution of navigable waterways in the U.S. In the matter of , the *M/T World Prodigy oil spill* , 1989 , *Exxon valdez,1989* etc., criminal penalty was imposed on ship owner and master of ship violation for violating Clean Water Act, the Refuse Act, the Migratory Bird Treaty Act , the Ports and Waterways Safety Act , and the Dangerous Cargo Act.

[30] See MARPOL, 1973, Annex I , Regulations 9 and 10. It prescribes discharge prohibitions in relation to oil in special areas as specified in MARPOL. Similar restrictions apply in the case of Noxious liquid substances carried in bulk under Annex II, Regulation ,5.

of hazardous substances and hence could be prohibited. But those prohibitions do not apply where discharge is made for securing the safety of ship or life at sea or where the discharge result from damage to ship or its equipment.[31] In the case of accidental pollution damage MARPOL, lift the prohibitions in relation to discharges of oil and other harmful substances. In such circumstances reasonable precautions must have been taken after occurrence of the discharge or the damage for preventing the pollution by the owner or the master. They must not have in those cases acted with intent to cause damage or recklessly and with knowledge that damage would probably result. Hence accidental spill is not a discharge prohibited under the MARPOL. With regard to nature of sanction the MARPOL did not specify what form the penalty has to be imposed for violation of pollution discharges apart from merely stating that it must be severe enough as to be commensurate to the act of violation, and to discourage future occurrence. But MARPOL, no where says that it needs to be criminal.[32]

The third United Nations Convention on the Law of the Sea, also show same approach. Beyond the enforcement jurisdiction of the Port State to adopt reasonable measures to compel, induce compliance, or impose sanctions for

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[31] *Ibid*, Annex I, Reg.11, and Annex II, Reg. 6(b)

[32] Anthony, Olagunju G. "Criminalization Of Seafarers For Accidental Discharge Of Oil: Is There Justification In International Law For Criminal Sanction For Negligent Or Accidental Pollution Of The Sea?." *Journal of Maritime Law and Commerce,* (2006), p 143 For the article see http://www.highbeam.com.Site accessed on 11 Mar. 2010.

non-compliance with applicable laws, regulations, or enforceable judgments by means of administrative or executive action or judicial proceedings, no other penal sanctions can be imposed.[33] Even though enforcement jurisdiction under both MARPOL and the UNCLOS III extend to arrest and detention of the vessel, it is nowhere specified that criminal sanctions and deprivation of individual liberty may be prescribed except in the case of a "willful and serious act of pollution in the territorial sea."[34] Over and above this, the UNCLOS III clearly specifies only monetary penalties may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels beyond the territorial sea.[35]

The general intention of UNCLOS, III is to explicitly limit sanction to monetary penalties for violation of pollution discharge standards. But in the case of 'willful and serious act of pollution in the territorial sea criminal sanction may be imposed. In such cases, there must be evidence of a willful, intentional and deliberate act on the part of the accused. It undoubtedly means that it excludes accidental pollution situations. Therefore in the current international regime civil liability is the accepted norm for accidental pollution damage.

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[33] *Ibid.*

[34] *Ibid.*

[35] UNCLOS,1982, Art. 230(1)

The conflict of the EU Directive imposing criminal sanctions with international norms was raised before courts also. A case was filed by a group of organisations within the shipping industry before the Queen's Bench in the U.K.,[36]alleging that the EU's unilateral action introducing criminal penalties for intentional and accidental pollution departed from the international rules on enforcement of pollution discharge standard. The court observed that the directive potentially appear to hamper the right of Innocent Passage and gives scope for differing obligations under the EC law and the international regime and therefore promotes legal uncertainty. But the court referred the case for the decision of European Court of Justice. On reference, the European Court of Justice declared the directive valid by holding that it does not go beyond MARPOL Convention and that it does not violate the UNCLOS Convention.[37] But these decisions are rendered by judicial organs inside the European Community and represents a constrained attitude not allowing them being a member of the EC to be incompetent to invalidate its directives.

36 See *In the matter of The International Association Of Independent Tanker Owners (INTERTANKO), The International Association Of Dry Cargo Shipowners (INTERCARGO, The Greek Shipping Co-Operation Committee Lloyd's Register The International Salvage Union and The Secretary Of State For Transport*, [2006] EWHC 1577 (Admin).

37 *In the matter of International Association of Independent Tanker Owners & Ors* (Environment & consumers)[2007]EUECJC308/06_(20Nov.2007)Report of case available at URL:http://www.bailii.org/eu/cases/EUECJ/2007/C30806_O.html

But the EU is very well bound by the long established IMO mandate under the current civil liability and compensation scheme for pollution damage .All through the UNCLOS, regarding protection of marine environment from pollution by hazardous substances , the thrust is to give force to generally accepted international standards. It is also notable that criminal penalty only tends to penalize the persons and will tend to hinder the international trade adversely. This trend will also pose threat to the need to have uniform standards because maritime trade necessitates movement of ships from one country to another. Different standards will tilt the balance of trade also.

8.3 Definition of Pollution Damage and Marine Environmental Pollution Damage

The definition of" Pollution damage" under the Civil liability convention for Oil Pollution Damage, 1969 was limited in its inception to economic losses connected with personal injury or property damage.[38] There was no reference to environmental damage at all and it took long time before the concept of pollution damage formally recognized damage to environment .The issue of disregard for environmental damage gained attention only in 1984 IMO Conference on marine liability and compensation following diversified interpretation of pollution

[38] See The Civil Liability Convention ,1969,Art.I(6).It defines pollution damage as 'loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever, such escape or discharge may occur, and includes the cost of preventive measures and further loss of damage caused by preventive measures'

damage in national jurisdictions evidencing lack of uniformity.[39] By the addition of the new clause in to Article I (6) pollution damage was agreed to encompass not only consequential loss claims (loss of earnings by owners/users of property contaminated by oil) but also claims for pure economic loss (loss of earnings suffered by parties whose property has not been damaged, e.g. coastal hoteliers, and fishery concerns. This even though tends to provide for an extension of liability norms beyond their traditional restriction to property damage, it would restrict environmental damage claims beyond loss of profit and reasonable measures of reinstatement It rule out, claims for environmental damage *per se*. The same principle is followed in other international regimes that offer compensation for pure environmental harm.[40]

None of these regimes state what is implied by 'reasonable measures' act as the measurement for the level of available compensation for environmental reinstatement to qualify as pollution damage.[41] However, the 1971 and the 1992 Fund Claims Manuals, offer an interpretation of

[39] The IMO conference on marine liability and compensation ,1984 added following clause to Article 1(6).."provided that compensation for impairment of the environment other than losses of profit from from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken".

[40] Gauci G. M. *Oil Pollution At Sea: Civil Liability And Compensation For Damage*, Chichester, Wiley, (1997), pp. 55–56.

[41] See The Fund Convention, 1992, Art. 1(2); The HNS Convention, Arts. 1(6) (c)&(d), 2(2) etc., The Basel Liability Protocol, Art. 2(c) (iv),(v), (d), The Vienna Convention, (1997) , Art. 1.

'reasonableness'. But it is limited to oil pollution damage and does not apply to pollution damage caused by other hazardous substances.[42]

But the current definition of pollution damage in its application poses challenge to environmental pollution damage. The scope for quantification of environmental damage is mooted as an essential condition to qualify for pollution damage. There is also no accepted test to determine environmental reinstatement. Issues were also raised on the absence of criteria to avoid damage remotely connected with the casualty from being termed as pollution damage. These issues have been the centre of the problem faced by the IOPC fund in dealing with claims for marine pollution damage. The IOPC fund assembly had issued timely directions to address them still there have problems which requires to be addressed here. The practice of states especially the U.S and the U.K can of be of help in solving certain issues, though not all. .

8.4 Quantification of Environmental Damage

According to the International Oil Pollution Compensation (IOPC) Fund, it is a prerequisite for environmental damage for recovery that they must qualify as recoverable pollution damage. The economic loss under this head need also to be quantifiable.[43]The Fund has rejected use of "abstract

[42] Refer Fund Claims Manuals, 1992 and 1971, p.32. Manual available at *www.iopcfund.org/publications.htm* Site visited on 20 June 2005, 1992.

[43] Resolution No. 3 of the IOPC Fund Assembly, 1980. It was adopted following the Soviet claims for ecological compensation arising from the grounding of a tanker, the

quantification of damage calculated in accordance with theoretical models" employed to quantify environmental damage. Hence irreparable environmental damage is not compensable either as unquantifiable, i.e. because the components of the environment cannot be reinstated or as unreasonable because the overall costs of reinstatement or damage cannot be evaluated.

But the attempt of the IOPC funds did not act as a hindrance to courts. This is illustrated by *The Patmos*.[44] In this case Italy brought an action claiming compensation for environmental or natural damage to marine flaura and fauna of Italian territorial water s due to contamination from oil spill involving *Patmos* and another ship. After the claim was rejected by the court of first Instance, appeal was filed before the Court of Appeal.[45] Before the Court the IOPC reiterated the 1980 resolution which states that the assessment of compensation was not to be based on abstract quantification of damage calculated in accordance with theoretical models. It also stated that compensation could be payable if quantifiable loss was suffered with respect to the claims on behalf of the tourism and fishing industries. The fund's view was that such damage could only be claimed by the individual who had suffered damage and who was able to prove both damage and the amount of economic

Antonio in 1979,the IOPC Fund to deny the USSR government's attempt to recover estimated costs for environmental damage beyond demonstrated economic loss.

[44] *Ministry of Merchant Marine v. Patmos Shipping Corporation and United Kingdom Mughal Steamship Assurance Association,* 391 Com.Cas.(1986)

[45] *Ibid*. p.450.

loss sustained. Holding that the compensation for environment claimed by the Ministry was within the definition of pollution damage caused to the coasts and affected interests of coastal states, the court observed "Environmental damage has got economic value even if it does not correspond to an arithmetical value and were therefore difficult to assess, this was not a reason to deny the claim made".[46]

This verdict affirms that because environmental damage cannot be quantified it cannot be termed as irrecoverable nor such damage be beyond the purview of pollution damage. In this respect what is needed is to evolve, as in the case of the U.S., techniques to quantify environmental damage rather than reject claims on the ground that they are not quantifiable.

8.5 Cost of Reinstatement of Environment

Ascertaining reinstatement cost of environment is another stumbling block in claiming pollution damage. A monetary value cannot be placed on loss of aesthetic value or economic value of marine environment. The marine environment does not have a direct economic value'. The property rights in these resources and the costs and benefits they provide, are also difficult to define and prove.[47] This has remained a problem in the definition of pollution

[46] *Supra*.n.p. 452.

[47] M. Jacobsson and N. Trotz, "The definition of pollution damage in the 1984 protocols to the 1969 Civil Liability Convention and the 1971 Fund Convention", 17 *Journal of Maritime Law and Commerce*, (1986), pp 470-471 p. 467.

damage also. The international civil liability scheme for oil pollution damage defines 'pollution damage' to include reasonable costs of reinstatement of environment. But it is difficult to determine the cost of reinstatement of environment. Damage to property clearly does not present the same difficulties since there is a market value and most legal systems recognize the concept of *restitutio in integrum* with compensation for a diminution in value or for the necessary cost of repairs. However, this concept cannot be applied to non-economic environmental harm. The costs of restoration cannot be compared with the value of the damaged environment, as the environment has no market value as such'. No diminution in value can be recognized since no 'value' for the environment exists in the market place. 'Repairs', on the other hand, can be carried out and this is what is recognised as available under the international civil liability scheme.[48] The cost of reasonable measures of reinstatement is limited to the cost of reinstating those organisms actually damaged by the incident, provided that reinstatement does not result in exorbitant expenditure. But this does not offer a fair and reasonable approach as far as calculation of environmental damage is concerned.[49]

The U.S. law provide a more rational approach to the ascertainment of cost of reinstatement. The case of *Commonwealth of Puerto Rico v. The SS*

[48] *R* . Clark, *Marine Pollution,* Clarendon Press, Oxford,(1989), p 194.

[49] See also Catherine Redgdwel, "Compensation for Oil Pollution damage and Quantifying Environmental Harm", 14 *Marine Policy,* (1992), pp.91-99

Zoe Colocotroni involved cost of reinstatement made by state of Peurto Rica.[50] Here an action was brought against an oil tanker, its owner and under writers claiming pollution damage compensation from oil spill, The claim included cost of reinstatement of environment. In calculating such costs, court added together the number of organisms expected to be killed and multiplied this to the lowest replacement cost of such organisms and cost of replanting mangroves and restoring it to the pre spill condition.[51] On appeal the issue arose as to whether in choosing a remedy for injury to natural resources the measure of damages should be the diminution in value of the resource or the costs of restoration. The former derives from the traditional common law rule for the measure of damages where there had been tortious injury to property, namely the difference between the market value of the property before and after the event causing injury. However, the first circuit of appeals concluded that damages based on this measure would be inconsistent with the purpose of the legislation, which was to preserve the ecological, not the monetary, value of the resource. Finally the court accepted the test that 'appropriate primary standard for determining damages' in a case such as the SS Zoe *Colocotroni*, is the cost reasonably to be incurred by the sovereign or its designated agency to restore or rehabilitate the environment in the affected area to its pre-existing

[50] 628 F. 2d 652 (1st Cir. 1980)

[51] H. Wendel, "Restoration as the Economically Efficient Remedy for Damage to Publicly Owned Natural Resources', 91 *Columbia Law Review*, (No 2-1991), pp.430-450 at p. 430.

condition, or as close thereto as is feasible without grossly disproportionate expenditures. The focus in determining such a remedy should be on the steps a reasonable and prudent sovereign or agency would take to mitigate the harm done by pollution. Finally the case was remanded to the District court holding the calculation as amounted to abstract quantification. In holding this the, Court of Appeals held that restoration as a remedy must not be so 'disproportionately expensive that it would not be reasonable to undertake such a remedy".[52]

According to the U.S. Oil Pollution Act,1990,[53] the quantum of pollution damage will not be based upon market value but upon 'all reliably calculated use values' including non-consumptive values such as 'option and existence'. This explanation of environmental damage is in tune with the famous decision of the U.S. Court of Appeal in *Ohio v. United States Department of the Interior*[54] rendered after the decision in *Zoe Colocotroni.* This case involved an action by the environmental groups in the U.S challenging regulations made under the CERCLA[55] and the Clean Water Act[56] relating to compensation recoverable for harm to publically owned natural resources from spill or discharge of oil or other hazardous substances. Under that provision

[52] *Supra*.n.50 at p.676

[53] U.S.C. §§1001 (32).

[54] 880 F.2d. 432(DC. Dir. 1989)

[55] U.S.C. §§ 9601-9675 (1988)

[56] 33 U.S.C. §§ 1251-1387 (1988).

compensation for pollution damage was limited to lesser of the costs of restoration or replacement, or diminution of use values'. The court held that the 'lesser of' rule was contrary to policy of CERCLA which emphasises restoration as the primary remedy for damage to publicly-owned natural resources. The court required the Department of the Interior to take into account 'all reliably calculated use values' in assessing damage to natural resources, including 'non consumptive values' such as option and existence. This requires a valuation of the loss to every U.S. citizen of damaged habitat and wildlife, for the damage is viewed as depriving citizens of the right of future enjoyment of undamaged resources. Damages are recoverable for injury to, destruction of, loss of, or loss of use of natural resources, including the cost of assessing such damages. The measurement or quantum of damages to natural resources is the cost of restoring, rehabilitating, replacing or acquiring the equivalent of the damaged natural resources; the diminution in value pending restoration; and the reasonable cost of assessing those costs. Loss of subsistence use of natural resources is also recoverable. The definitions in the act are intended to be consistent with the decision of the U.S. Court of Appeals' decision in *Ohio v. Interior*, which means that the quantum of damages will not be based upon market value but upon 'all reliably calculated use values' including non-consumptive values such as 'option and existence.'[57] In other words, 'use value' - the worth of natural resources to those who use

[57] See A.F. Bessemer Clark, "The U.S. Oil Pollution Act of 1990," *Lloyd's Maritime and Commercial Law* Quarterly (1997), pp. 247-256

them calculated in accordance with what those resources cost them to use - is rejected in favour of 'option and existence value', which recognizes that natural resources may have value to the public even if not actually used.[58]

There is a fundamental difference in perspective regarding compensation for marine pollution. The problem in assessing environmental damage is the fact that a monetary value cannot be placed on loss of aesthetic value and economic value of marine environment as the marine environment does not have a direct economic value'. Theoretical models are viewed as necessarily arbitrary due to ascribing values to aesthetic qualities without recourse to the market value. That is why the international community has been consistently supporting the concept of restoration for determining compensation for ecological damage. The attempt of the international community have been to exclude non –economic value of environment from the concept of compensation by importing restrictions in the definition of pollution damage. On the contrary the U.S decisions *SS Zoe Colocotroni*, *Ohio* and Italian decision of *The Patmos* and Legislations like OPA and CERCLA attempt to put an economic value on the Non-economic value of the environment. This is in fact to create a strong duty to protect and preserve the marine environment. The international scheme by simply adding reinstatement costs with out any criteria to determine it tends to promote uncertainty. It is

[58] *Ibid* at.p.253

necessary for promoting better recovery for pollution damage to evolve a criteria to determine reinstatement cost internationally.

The scope of pollution damages is the arena of greatest divergence between the U.S. regulations and the international regime.[59] In contradiction to the vague meaning and scope of "pollution damage" under the international scheme, the OPA offers a clear and wider scope for meaning of pollution damage to facilitate complete recovery of damage to environment .The concept which is similar to pollution damage under the CERCLA and the National Marine Sanctuaries Act,1972[60] introduces a novel concept of natural resources and tends to elaborate by defining what constitutes natural resources. By doing so it tries to erase the ambiguity in the scope of pollution damages under the international scheme. Hence pollution damage under the U.S. scheme is not limited to economic loss and reasonable environmental damage. But it includes damage to natural resources including the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of, the damaged resources or the diminution in value of those natural resources pending restoration and also the costs of assessing those damages. This enumeration helps to restore the environment to the pre-accident state and hence is really an improvement over

[59] Edger Gold,"Liability and Compensation for Ship-Source Marine Pollution: The International System" in Helge Ole Bergesen, Georg Parmann, and Øystein B. Thommessen (eds.),Yearbook *Of International Co-Operation On Environment And Development, (*1999/2000),pp.31-37.

[60] Formerly the Marine Protection, Research, and Sanctuaries Act, 16 U.S.C. § 1443

the reasonable measures concept of environmental damage under the international law.

Further unlike international scheme, the U.S. statutes like OPA and other pollution liability statutes[61] make a difference between private property and public property and affords recovery of environmental damage claims by states treating states as public trustee or *parens patriae* and facilitate use of the money to compensate the public by restoring, rehabilitating, replacing, or acquiring the equivalent of the injured natural resources.[62] The provisions for restoration for the loss of natural resources and services by allowing acquisition of equivalent habitats away from the damage site, go beyond international scheme in regard to environmental reinstatement.

8.6 Direct Link between Pollution Incident and Pollution Damage

The requirement of causal connection between pollution incident and resultant loss is a general principle of recovery of loss. But the international civil liability scheme does not prescribe this clearly. The absence of such a

[61] The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, more commonly known as Superfund) 42 U.S.C. § 9607 and The National Marine Sanctuaries Act (formerly the Marine Protection, Research, and Sanctuaries Act), 16 U.S.C. § 1443.

[62] *Sierra Club v. Department of the Interior*, 376 F. Supp. 90 (1974). This case is an authority for these doctrines in the U.S. law . See also §§1006(b)(2)(A) of The OPA, 1990.These doctrines allow states to hold property property and natural resources in trust for the for the benefit of the public and allows states to assert a claim on behalf of its citizens.

requirement has thrown Oil pollution compensation funds to secondary damages before courts in the U.K. The Merchant Shipping Act,1995 also adopt the same definition of pollution damage. "Pollution damage" as defined under the Merchant Shipping Act,1995[63] adopted for other hazardous substances like Hazardous and Noxious Substances, and Hazardous waste. Such pollution damage include liability for the cost of preventive measures and damage caused by them where there is a grave and imminent threat of damage by contamination instead of actual pollution. In UK despite the absence of requirement of causal connection between pollution incident and resultant loss the attitude of judiciary has been to read in the requirement by proper interpretation of pollution damage by importing common law principles of causation and proximity.

The decision in *Landcatch Ltd v. International Oil Pollution Compensation Fund*[64] is a good illustration in this regard. In this case, secondary damages not directly resulting from pollution incident was

[63] The Merchant Shipping Act, 1995, Part VI, Chapters III-IV, implements the International Convention on Civil Liability for Oil Pollution Damage 1969/1992 and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971/1992. The Merchant Shipping (Oil Pollution) (Supplementary Fund Protocol) Order, 2006 adopts 2003 Protocol in the U.K. The Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea ,1996, extending Civil liability to HNS is implemented by the Merchant Shipping and Maritime Security Act, 1997 in the U.K.

[64] [1998] 2 Lloyd's Rep. 552

disallowed. Here the case concerned with the contamination caused by the grounding of *BREAR* resulting in spill of fuel oil. The resulted in imposition of a ban on fishing in an area around Shetland used for rearing and harvesting salmon. The pursuers' business, carried at about 500 kilometers from Shetland, was to rear salmon from eggs to smolt in freshwater conditions, and then to sell them for on growing to maturity in seawater conditions such as those off Shetland, which was their principal market. The claimant suffered loss from inability to make and perform the usual yearly contracts as a result of the ban. The court pointed out the limits placed in the general common law of negligence on the recovery for economic loss, incurred by persons without any proprietary or possessory interest in property suffering physical damage. Since there was only contractual relations with those having a proprietary or possessory interest in such property disallowed the claim. \

Alegrate Shipping Co. Inc. and Another v. International Oil Pollution Compensation Fund and Others (THE "SEA EMPRESS")[65] is another case decided by the Court of Appeal in the U.K following the grounding of the Sea Empress. Here the action was for recovery of loss of business profits as a result of a ban imposed on fishing and picking edible plants from the contaminated area of sea. Holding that loss is allowable only if it is directly or proximately connected with contamination disallowed the claim. In the U.K. courts fill the

[65] [2003] 1 Lloyd's Rep.327

gaps in the definition of pollution damage by reference to fundamental principles of common law.

8.7 Conclusion

The above discussion shows the scope of international liability regime to address the ability issues arising out of transboundary movement of hazardous substances through the sea. No doubt the scheme of civil liability has become a success in terms of its wide acceptance for addressing liability and compensation issues relating to pollution damage from seaborne movement of oil. A number of treaties that are not implemented or complied with respect to other hazardous substances like radio active substances and hazardous waste reveal inconsistency between actual state practice and the international scheme. The state practice also questions the credibility of international civil liability as the most appropriate means for redressing claims for pure environmental damage. The scheme suffers from several short comings.

The Scope of marine pollution damage is very narrow and do not answer all aspects of pollution damage. The meaning and scope of pollution damage and its recovery in international law and national legislations limit the environmental damage to economic damage i.e., lost profits and earnings and is devoid of any concern for environmental damage *per se*. Hence the definition of pollution damage and provisions dealing with them requires to be amended to strike a balance between remediation and restoration of environment.

The scheme of liability also requires introspection. There is no doubt that the channeling of liability concept if properly incorporated and strictly adhered to will facilitate prompt an effective redressal of pollution claims. At the same time several criticisms have been leveled against this provision under the Civil Liability Convention, 1992, stating that it will not serve as an incentive to insist duty of care on the part of persons like master, charterer, operator etc., who are closely associated with actual carriage. What is actually prevented by liability provisions is the channeling claims on to one single responsible party, at the same time leaving scope for recourse actions, in the event of their misconduct resulting in the damage. The real problem lies with other provisions giving force to channeling of liability. While channeling liability, it is necessary to clearly enumerate who are strictly liable for pollution damage and also who are excluded from primary liability for pollution damage to avoid actions against them and thus channel claims against responsible persons. Again the tendency to exonerate ship owner who is actually in control of the Hazardous substances when they are on board the ship during its transit has to be discouraged.

Strict liability as envisaged in the international maritime liability and compensation schemes, also lacks deterrence. The primary focus under the scheme is placed on providing compensation, rather than punishing or deterring the polluter .This together with the statutory exceptions that limits the imposition of liability weakens the scheme. Domestic environmental liability

regimes like that of the U.S. and in some cases regional ones, provide for stronger deterrent component as by employing unlimited fault liability, imposition of punitive damages, and even criminal liability for vessel-sourced pollution. This helps to overcome this weakness. The impact of unilateral measures as in the case of the EU criminal Penalty directive in making accidental pollution damage a criminal offence promotes uncertainty as to the law relating to accidental pollution damage. When accidental pollution offences are treated as a civil offences and dealt with by civil sanctions outside European community, criminal responsibility is faced for same pollution accidents inside European waters. This difference in approach will certainly promote uncertainty and lack of uniformity that is highly undesirable for the development of international shipping .So the proper method of doing it is only for the EU would be to Create international opinion about the shortcomings of civil liability scheme and mobilize international consensus on the need for criminal penalty. Without seeking international support, it is not fair on the part of the EU to impose criminal sanctions unilaterally. The present scenario will only tend to adversely affect international regulation of transboundary movement of hazardous substances.

Chapter -9

LIMITATION OF LIABILITY FOR POLLUTION DAMAGE

Limitation of liability for loss or damage caused by those involved in marine adventure is a long established principle in international maritime law. According to the concept, ship owners and their representative interests are entitled to limit liability arising out of the marine adventure, generally restricted to the value of ship's tonnage. This concept therefore was introduced with the object of providing an encouragement to enhance shipping tonnage and attract more investment in marine adventure[1].But with passage of time and change in circumstances limitation of liability, in general maritime law has now been referred to as "an anachronism'[2] and "a historical mistake"[3].

Limitation of liability for marine pollution damage is also an area which has been subjected to constant debate. This concept has been applied to the field of marine pollution damage from ships carrying hazardous substances without much enquiry in to its suitability for addressing pollution damage

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1 See *The Garden City*,[1982] 2 Lloyd's Rep.382 at p.398. In this case Lord Justice Staughton speaks about the rationale behind the introduction of concept of limitation of liability as an encouragement to ship owners.

2 See Gothard Gauci "Limitation of Liability in Maritime Law: an Anachronism?", 19 *Marine Policy* , (1995), pp.65–74.

3 See Michael Faure and Wang Hui, "Finacial Caps for Oil Pollution Damage : A Historical Mistake?", 32 *Marine Policy*, (2008), pp. 592–606,

claims. The shortcomings brought about by such adaptation together with the inherent drawbacks due to the unique nature of environmental damage, its non economic and no use value, make recovery a difficult task. Hence a critical study of the scheme for limitation of liability for pollution damage arising from transboundary movement of hazardous substances is undertaken.

For a systematic study, the evolution of law on limitation of ship owner's liability and major changes in this area is made. Compensation for pollution damage from hazardous substances was recognised in response to major pollution incidents involving ships carrying hazardous substances as cargo. In addition to addressing problems in this area it is also proposed to examine entitlement to limitation of liability, conditions subject to which the right is exercised and circumstances in which the responsible persons can be deprived of the right to limit. The methods for fixing liability and compensation limits are also addressed. The study focus on the need to device a alternative mechanism for limit fixation also.

9.1 Evolution of the Limitation of liability and compensation : The current regime.

The genesis of limitation of liability for general maritime claims has been traced by scholars to the tables of Amalfi, Italy of the 11th century.[4] The

[4] The tables of Amalfi were a commercial code compiled for the free and trading Republic of Amalfia, Italy containing the earliest evidence of the Ship owner's right to limit his liability. See Xia Chin, *Limitation of Liability for Maritime*

concept was also frequently in use since early 16th Century, the time of Grotius. In England, in response to concerns raised by the shipping community, English parliament gave recognition to the concept in 1734[5]. Legislation also existed in the United States providing for limitation of liability of ship owners[6]. Until 19th century limitation of liability remained a national concern addressed in national legal systems. The 20th century witnessed a shift from unilateral national legislation in favour of multilateral conventions. The most notable result of this change in the field of limitation of liability of ship owner for damage done by the ship is the International Convention for the Unification of Certain Rules relating to the Limitation of the Liability of Owners of Sea – Going Ships, 1924. The convention in the absence of a stipulation on the method for calculation of limitation resulted in divergent state practices. In the UK the limitation was based on tonnage but in European Community and the US value of ship determined limitation of liability.[7] The shortcomings of the 1924 Convention paved the way for the adoption of the International Convention on limitation of Liability in 1957 adopting the English concept of limitation based on the Tonnage of the ship for calculating limitation. The most recent update to

Claims, Kluwer Law International (2001) This treatise makes an intense study of the origin of the concept of limitation of liability of ship owners.

5 See the Responsibility of Ship Owner's Act, 1733, 7 George II, Ch.15 (1734)

6 The Limitation of Liability Act,1851, Title 46 U.S.C 181-189

7 See Griggs, "Limitation of Liability for Maritime Claims: The Search for International Uniformity", *Lloyds Maritime and Commercial Law Quarterly,* (1997),pp.369-378.

the international limitation of liability can be seen in the 1976 Convention on the limitation of Liability for Maritime Claims which strengthened the ship owner's right to limit.

As seen with regard to evolution of liability norms for marine pollution damage, the grounding of the *Torrey Canyon* in 1967 and the catastrophic damage to the UK's coast emphasized the need for special limitation of liability regime for pollution damage arising from maritime casualties involving hazardous substances.[8] The incident led to the introduction of measures through the IMO, to provide for compensation to victims of accidental marine pollution damage caused by oil, which initiated adoption of similar schemes for other hazardous substances. The International Convention on Civil Liability for Oil Pollution Damage 1969 (herein after called The Civil liability Convention), 1969[9] which was adopted to deal with the civil liability of registered ship owner for pollution damage caused by persistent oil spills also capped the liability of ship owners to a certain limit.[10] The delegates of the conference which adopted the Civil Liability Convention felt that due to the presence of the limits to liability adequate compensation might not be available to victims of pollution incidents. This resulted in adoption of a second tier of

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[8] Aleka Mandaraka Sheppard, *Modern Maritime Law and Risk Management*, Routeledge-Cavendish Publishing Co., London (2004) at p.953

[9] International Convention on Civil Liability for Oil Pollution Damage 1969, 973 UNTS 3 [1996] ATS No 2

[10] The Civil Liability Convention,1969, Art.5

compensation established under the International Convention on the establishment of an International Fund for Compensation for Oil Pollution Damage (hereinafter called the Fund Convention) in 1971. Thus the Fund Convention provides a secondary liability scheme[11] as observed by the Court in *Landcatch v. IOPC Fund,* and the victim is allowed to claim for pollution damage for which he has not been able to obtain full and adequate compensation under the Civil Liability convention[12]. In 1984, an increase in the limits of both the conventions were attempted to update the limits. But it did not enter in to force due to insufficient ratification and failure of the US to ratify the limits. So these changes were introduced in 1992 by drawing protocols to both conventions. As a reaction to *ERIKA oil spill* (1999), the 1992 limits were increased by fifty percent in 2000 to take effect from 2003. Later as a reaction to *the Prestige* Incident in 2002, a Supplementary Fund contributed by the oil industry was established in 2003 to provide a third tier of compensation.

Limitation of liability and compensation for damage caused by the carriage by sea of Hazardous and Noxious substances[13] is largely modeled on

[11] [1999] 2 Lloyd's Rep 316

[12] See Fund Convention, Art.4 Such reasons include absence of liability, insufficient financial security, damage above owner's liability under CLC etc.

[13] Hereinafter called 'HNS'

the Oil Pollution the Civil liability Convention or Fund regime.[14] It has been dealt under HNS Convention,1996 which Compensation payments to be made by the HNS funds is financed by contributions levied on persons who have received cargo of HNS after sea transport in a member state.[15] Similarly liability for pollution damage from carriage of nuclear substances stands limited under the Vienna Convention and Paris Convention.[16] Beyond the limit the state where installation is situated is authorised to constitute pubic funds. Therefore a study of the development of law civil liability for pollution damage from hazardous substances show that the scheme follows a uniform pattern with regard to all hazardous substances alike. It incorporates limitation of liability and the remedy of compensating the pollution damage, even though depending on the nature of damage posed by them there is some difference as to the limits to liability, amount of compensation and Funds available.

9.2 Limitation of Liability under General Limitation of Liability Conventions

Limitation of liability and compensation for pollution damage from transboundary movement of hazardous substances was addressed by the

[14] International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by sea (HNS Convention), 1996.

[15] *Ibid*, Art.16.

[16] Vienna Convention on Civil Liability for Nuclear Damage,1963 and Paris Convention on Third Party Liability the Field of Nuclear Damage,1960.

general limitation scheme established for maritime claims.[17] The general scheme addressed the issue of limitation of liability of ship owner for marine pollution as any other general maritime claim. The ship owner and persons connected with the ship like charterer, manager, operator of ship is liable for pollution damage.[18] The ship owner, salvor, any persons for whose act, neglect or default the ship owner, or the salvor is allowed to limit the liability under the convention.[19] The insurer of liability is also entitled to the benefit of limitation of liability to the same extend as the insured.

There is no additional fund established to provide compensation beyond the limit to which the ship owner or responsible person was held liable. This necessitated the adoption of more specific limitation of liability schemes to address pollution damage caused by spillage and discharge of hazardous substances.

This necessitated the adoption of specific schemes for liability arising out of carriage of hazardous substances like oil, nuclear substances separately after the *Torrey Canyon* Incident of 1967. Accordingly the latest convention in

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[17] The limitation of liability for general maritime claims stands dealt mainly under the International Convention for the Unification of Certain Rules Relating to the Limitation of Liability of Owners of Sea-going Vessels (Limitation Convention) 1957 as amended by the Convention on Limitation of Liability for Maritime Claims' 1976 (LLMC 1976) and its 1996 Protocol (LLMC 1996).

[18] See also Edgar Gold, "The 1976 Limitation Convention and Oil Pollution Damage", *Lloyd's Maritime and Commercial law Quarterly*, (1979), p. 21

[19] See The Limitation Convention, 1976, Art 1(2)

force viz., the 1976 Convention on the Limitation of Liability for Maritime Claims (LLMC) as updated by its 1996 Protocol excludes from its purview, pollution damage caused by ships carrying oil, nuclear substances etc., as cargo. Hence the general scheme gains only a limited discussion.

9.3 Legal frame work for limitation of liability and compensation

Limitation of liability and compensation for pollution damage from transboundary movement of hazardous substances was addressed by the general limitation scheme established for maritime claims.[20]Under the general limitation frame work the limitation and compensation amount available for pollution damage was very limited. The ship owner and persons connected with the ship alone is liable for pollution damage.[21] There was no additional fund established to provide compensation beyond the limit to which the ship owner or responsible person was held liable. But with increase in maritime transport of hazardous substances and extensive threat of pollution damage to the environment resulting from casualties involving ships necessitated separate and higher liability limits and compensation funds were established . Though

[20] The limitation of liability for general maritime claims stands dealt mainly under the International Convention for the Unification of Certain Rules Relating to the Limitation of Liability of Owners of Sea-going Vessels (Limitation Convention) 1957 as amended by the Convention on Limitation of Liability for Maritime Claims 1976 and its 1996 Protocol.

[21] See The Limitation Convention ,1957 , Art.1(2) See also Edgar Gold, "The 1976 Limitation Convention and Oil Pollution Damage", *Lloyd's Maritime and Commercial law Quarterly*, (1979), p.21

independent schemes were established for different hazardous substances like oil, HNS, hazardous waste etc. these schemes follow the same principle of liability, strict but limited. Of these the Civil Liability Scheme for marine oil pollution damage has become established on in terms of acceptance and implementation and lay the basis for all other hazardous substances. Most liability schemes envisage limits of liability and establish their own limitation amounts.[22]

The Limitation of liability and compensation under specific schemes addressing marine pollution damage from hazardous substances have been devised in a such a way as to act as a mechanism of cost sharing between all involved in and benefitting from the trade, rather than imposing all loss on single party. With that aim, the liability scheme not only cover ship owner or operator of the facility or installation handling hazardous substance but the cargo interests are also brought inside the liability and compensation framework. Hence the scheme as it started off with oil pollution damage establishes a multi – tiered approach in terms of liability and also for recovering compensation. The Civil liability Convention, 1969 as updated prescribes the primary liability of the ship owner subject to a limit fixed under the convention. To that extend ship

[22] The maximum level of liability for the ship owner in case of damage by oil under the Civil liability Convention when carried as cargo goes up to 89 million 770 thousand SDR, while the ship owner under the HNS regime may limit its liability to the maximum of 100 million SDR. This bar is further raised in the 2004 Protocols to the 1960n Paris Convention and the 1997 Supplementary Convention, reaching 617million SDR (€700 million).

owner or operator stands liable to pay compensation to victims. Ship owner or operator is under a duty to create a fund or show financial security acceptable to the court to the extend of his liability. As a supplement to the mechanism of liability of ship owner or operator, a purely financial scheme for covering loss from environmental pollution damage or the so called 'pollution compensation funds' exist. They are contributed by the cargo interests by providing additional monetary resources for ensuring prompt, adequate and effective compensation as well as realising the principle of fairness in terms of equitable sharing of the risk of pollution damage between carriers and cargo owners corresponding to their size of cargo and tonnage of ship. In the case of potentially hazardous substances like nuclear substances risk sharing is between the operator of the nuclear installation and the State where the installation is located, and ultimately all State parties to the liability regime. This is not typical for the maritime domain, as the nuclear liability conventions cover all nuclear incidents. Apart from funds contributed by the cargo interests, there also exists the possibility of State levied funds such as the public funds established at the domestic level contributed by states as in the case of nuclear substances[23] and oil[24].

[23] 2004 Protocol to the 1960 Paris Convention, Art. 10, 2004 Protocol to the 1963 Supplementary Convention, Art. 3 (b)(ii).

[24] Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1992, Art.14, full text of the Protocol available at www.iopcfunds.org Site visited 12 May 2009

The ship owner or responsible party is also entitled to limit his liability for marine pollution damage in an attempt to soften the harsh effects of strict liability for pollution damage thrust on him[25]. The condition for depriving right to limit which was based on personal fault or privity has undergone a change in recent times and has been equated to one of 'willful misconduct'[26]. This marks a shift in principle to make ship owner's or responsible party's right to limit liability 'unbreakable'. This change in effect made right to limit resemble the one under the 1976 limitation convention and practically intended to avoid a situation where ship owner's liability is unlimited thereby causing ship owner losing the insurance cover.[27] Even then an unbreakable right to limit, only favours the shipping interests and is not conducive to the prevent pollution of the marine environment.

In order to be entitled to exercise this right to limit one must establish a limitation fund by depositing the limitation amount with a court or by furnishing a guarantee for that amount acceptable to the court. Ship owners and other responsible persons are required to carry on board ships or maintain inside the facility certificate attesting insurance cover for the liability. State parties are required to verify them through port state control and other

[25] The Civil Liability Convention,1969, Art.V(2)

[26] M. Faure, H. Wang, "Financial caps for oil pollution damage: A historical mistake?" 32 *Marine Policy*, (2008), 592–606, at p.597. The right to limit which followed the principle of Personal fault under 1969 Civil Liability Convention came to be changed to one of wilful misconduct under the 1992 protocol to the CLC .

[27] *Ibid.*

mechanisms. Even though, the mandate of Compulsory insurance is intended to provide victims easy access to claim compensation, the actual working with the claim process for oil pollution damage under CLC presented a conflict between expectation and reality. The fact that following major incidents there will be many claims for different types of losses and the policy underlying the scheme that all claims should be treated equally caused dilemma for the IOPC Fund[28]. Because much time is spent in getting a clear picture of all the claims as demonstrated in the claim settlement of the *Aegean Sea and*

Sea Empress spills[29]. Another practical problem encountered is that limitation of liability is usually made in terms of fixed amounts. But with new incidents, the liability limits and amount of compensation fixed become obsolete leaving affected parties under compensated.

The recovery of compensation for marine pollution damage has also been subjected to lot of debates. There is no clarity as to the scope of the concept of pollution damage in its application to environmental damage under International civil liability scheme and national jurisdictions applying them. The definition of pollution damage, initially defined to encompass economic losses connected with personal injury and property damage, raised concerns in member states as to the need to refer environmental damage also. This led to

[28] John Wren, "Overview of the Compensation and Liability Regimes Under the International Oil Pollution Compensation Fund (IOPC)",6 *Spill Science & Technology Bulletin,* (No. 1), (2000), pp. 45-58, at p.47

[29] *Ibid.*

inclusion of a new clause on environmental damage under the Civil liability scheme for oil pollution damage. But the limitation of environmental pollution damage to reasonable measures of reinstatement with out expressly stating what constitute 'reasonable measures of reinstatement' again posed problems for determining compensation. Certain inherent problems with nature of environment also created hurdles in this area. The difficulty with ascertaining the monetary or economic value of the environment presented problem for determining compensation. And abstract quantification of damage to environment based on theoretical models have always been opposed by the IOPC Fund as not recoverable as occurred in the *Antonio Gramscii, the Haven, the Evoikos claims* etc[30]. In the absence of what constitute reasonable measures of reinstatement the claimants are left in the dark under the international scheme.

The concept of pollution damage under international civil liability scheme also does not take a broadened view of compensation for environmental damage considering it as a violation of states rights over its collective interests. But the U.S. law recognise the rights of states authorities

[30] See Michael Mason, "Civil liability for oil pollution damage: examining the evolving scope for environmental compensation in the international regime", 27 *Marine Policy*, (2003), pp. 1–12 at p.4 In claim settlement of all these spills IOPC Fund opposed environmental claims calculated on the basis of on abstract models

as trustee of public assets or *parens patriae*[31] and allow federal and state governments to pursue environmental liability actions on behalf of the public.

The basic framework for public damage claims under natural resource liability statutes including Oil Pollution Act, 1990 which apply the civil liability for oil pollution damage in the US assures full recovery of compensation for pollution damage to environment. In US both statutes and case law have evolved effective strategy to provide for complete recovery of environmental pollution damage pursuant to transboundary movement of hazardous substances. The term 'natural resources' perspective to pollution damage stands effectively defined under statutes in the U.S. And cases like *Ohio v. States Department of Interior*[32]has evolved the components of ecological restoration with the objective of providing full recovery of

[31] In *The Patmos Incident* this defect of the international scheme for oil pollution damage was raised In this case the Italian courts stated that CLC 1969 made no distinction between private property damages and public property damages: they found, moreover, that direct public ownership was not necessary to justify environmental compensation claims because the state as a trustee for national or local publics has a right of action beyond economic loss . For the case see *Ministry of Merchant Marine v. Patmos Shipping Corporation and the UK Mughal Steamship Assurance Association* Com. Cas. Reg. Nos. 391-450 (1986)

[32] F.2d 432 (DC. Dir.1989). The case involved an action brought by a number of environmental groups challenging regulations promulgated under the CERCLA and Clean water Act in the US. To get a general account of US position in this regard See Catherine Redgwell, "Compensation for Oil Pollution Damage : Quantifying Environmental Harm", 14 *Marine Policy*,(1992), pp.91-98.

compensation. The same approach has been adopted as the law under the OPA, 1990 for recovery of compensation for marine oil pollution damage in the U.S.

Liability and compensation limits established under the existing civil liability scheme are another area which is notorious for its defects. These limits are usually fixed become insufficient to absorb liability and compensation from the resulting pollution damage claims. The oil pollution compensation limits is a good example for this. The international regime, as it had been established in 1969, could not provide compensation in a satisfactory way. Even more recently new incidents that hit the coasts of Europe, more particularly with the *Erika* in 1999 and the *Prestige* in 2002, necessitated introduction of new protocols to the scheme to update the limits. And as on now the existing limits will stay on as a new incident causing pollution damage may make it obsolete. This is applicable to schemes for other hazardous substances also. Therefore, present scheme does no offer coverage for extensive pollution damage .

9.4 Scope of Limitation of liability

The general trend underlying international measures towards limitation of liability for pollution damage is to deny the right to limit to those who exhibit a blame worthy conduct. Ever since the adoption of the concept under general limitation of liability for maritime claims in maritime law the test for

breaking the liability of ship owner has been undergoing change33.In the early stages ship owner was deprived of the right to limit his liability if the incident causing the pollution damage occurred as a result of the owner's personal fault -actual or privity. Hence it was possible to break the right to limit of ship owner if his servant was at fault and the ship owner was privy to that fault.[34] A substantial departure form this standard occurred and the test to break limitation now stands changed one where ship owner is deprived of this right only on proof that loss resulted from his own personal act or omission committed with intent to cause such loss or recklessly with knowledge that such loss would probably result. This change stands accepted in to recent versions of civil liability and compensation regime for hazardous substances.[35] As a result the burden of proof also stands shifted on to the claimant who has to prove that the ship owner's conduct deprives him of his right to limit his liability. A practical draw back of the scheme, to mention here, is that even if owner's fault or privity is proved circumstances peculiar to nature of shipping adventure make the chance of breaking ship owner's right to limit

[33] The general scheme of limitation of liability arising out of general maritime claims is dealt under the 1957 and 1976 conventions. See also Xia Chin, *Limitation of Liability for Maritime Claims*, Kluwer Law International, Boston (2001).

[34] See *The Alleta* [1973] 1 Lloyd's Rep. 375, *The Marion* (1984) A.C. 563, *The Eurysthenes*, [1976] 21 Lloyd's Rep. 171 etc.

[35] See The Civil Liability Convention, Art.5, and The HNS Convention, 1996, Art. 9.

very remote . In an English case *The Salem*,[36] interpreting provisions applying the Civil Liability Convention, even though there was wilful misconduct on the part of the owner the decision was rendered against the claimant. Because the claimant could not prove that there was intention to cause pollution damage or recklessness or knowledge that such damage would probably result since the ship was sunk in to the sea. As seen from recent decisions[37] of the English courts limiting the right to limit under the 1976 Limitation Convention, it will be difficult to break the right to limit for marine pollution damage also.

But at the same time there is another case decided in the U.K. that shows some sign of relief. In *Loic Ludovic Margolle and another v. Delta Maritime Company Limited and others* [38] the claimants right to limit liability under the general limitation Convention, 1976 was put to challenge. The right to limit under the 1976 convention closely follow the CLC's test to determine ability to limit liability. Court observed that the burden of proof required for breaking the limit requires exceptional proof of personal act or omission" , and also relevant knowledge that "such loss" would probably result on the part of party entitled to the right . The judge agreed that it was a rare case and

[36] [1983]1 Lloyd's Rep. 342. The case involved conspiracy between the ship owner and the crew to scuttle the ship.

[37] In cases like *Mediterranean Shipping Co. S A v. The Delumar BVBA, (The MSC Rosa M),* [2000] 2 Lloyd's Rep 399, and *Schifforhrtsellschaft MS. Merkur Sky Gmbh and Co. kg (The Leerort),* [2001] 2 Lloyd's Rep 291 inadequate proof of intention to cause loss disallowed the claims for pollution damage.

38 http://www.onlinedmc.co.uk/margolle_v__delta_maritime.htm site visited 11/3/2012

inferred that Ship owner had the relevant knowledge that a collision would probably result as he had navigated the vessel through the same route several times earlier . So even if he was sleeping at that time of collision he had relevant knowledge of chance of a collision and held that his conduct barred the right to limit. But the U.S. law how ever adopts a standard more convenient and favourable to the victims. The right to limit liability is lost where the spill has been caused by, among other things, "gross negligence". It is widely considered that, to put it elegantly, if the amount spilled is "gross" then the courts will consider that "gross negligence" has been involved. Therefore it is considered that in practice in the U.S.A. ship owner's right to limit can be broken easily.

9.5 State's Right to Claim Environmental Damage

The Concept of civil liability for marine pollution damage from hazardous substances does not make any distinction between private property damages and public property damages. The concept of compensation for environmental damage as a violation of states rights over its collective interests also does not seem recognised under the current scheme. The possibility of a state's right to environmental compensation as parens patriae of collective interests that is, as representative of its affected public as a national community also stands ignored This is another hurdle in the recovery of compensation for environmental pollution damage.

The possibility of states right to environmental compensation was highlighted in several claims for pollution damage before the IOPC Fund. As early as in *The Patmos case* the need to distinguish between private property damages and damages to public property was mooted. The possibility of state's right to claim environmental compensation as a representative of affected public was also raised in this case. The Italian court which decided this case stated that CLC 1969 made no distinction between private property damages and public property damages. The court found that moreover, direct public ownership was not necessary to justify environmental compensation claims because the state as a trustee for national or local publics has a right of action beyond economic loss. While the IOPC Fund has recognized that public bodies can be legitimate claimants under the oil pollution liability regime, it has not accepted trusteeship claims divorced from quantifiable elements of economic damage.

The right of a state as public trustee to claim environmental compensation was again championed by the French government following the ERIKA incident of 1999. French delegation recommended incorporating into the IOPC Fund 1992 Claims Manual a concept of compensation for environmental damage as a violation of state rights over its collective marine assets. However, the French public trustee proposal failed to receive significant support within the Working Group, as it was judged to fall outside the scope of pollution damage defined in the CLC 1992. The Fund continues to maintain that such theoretical formulations of public or collective environmental damage

would open up liability determination to arbitrary decisions in national courts, perhaps even hindering private victims in their own claims for compensation.

But full recovery of pollution damage to environment and states right to claim it as a custodian of public property was long established under U.S. legal system. In the U.S. the Oil Pollution Act, 1990 and several environmental liability legislations recognise compensation for environmental damage to public property.[39] The Oil Pollution Act, 1990 which lays down the civil liability for marine oil pollution damage, adopts the concept of natural resources and define it broadly to include "land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources" belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States, any state or Indian tribe or any foreign Government[40]. These federal laws also gives thrust to the common law

[39] Federal Water Pollution Control Act (Clean Water Act), 1972,33 U.S.C. § 1321(f)(4) & (5); Deepwater Port Act,1974, 33 U.S.C. § 1501 (authorizing the trustee to recover for all damages for oil spilled at or in connection with deepwater ports, and to use recoveries to restore or rehabilitate the injured natural resources); Outer Continental Shelf Lands (Amendment),Act,1978, 43 U.S.C. § 1813 (authorizing the trustee to recover damages for injury to or destruction of natural resources and to use the money recovered to restore, rehabilitate or acquire the equivalent of such injured resources); and Trans-Alaska Pipeline Authorization Act, 43 U.S.C. § 1653 (allowing public and private parties to recover for damages from spills of oil transported through the Trans-Alaska Pipeline). TAPAA still covers liability for spills of Alaska North Slope crude oil along the pipeline right-of-way.

[40] 33 U.S.C. § 2706.

principle of public trust doctrine and *parens patriae* principle and create obligations on the part of sovereigns to protect and preserve the environment[41].These statutes also call on the President and State governors to designate officials in natural resource management agencies to serve as trustees for natural resources on behalf of the public[42]. The trustees are to claim damages and use the recovered monies to compensate the public by restoring, rehabilitating, replacing, or acquiring the equivalent of the injured resources.

The component of recoverable compensation for damage to natural resources also marks an innovative step in this regard. Compensation for natural resources comprises of three components. Compensation is available for primary restoration, interim losses and reasonable cost of assessing these damages. The measure of damages includes the costs of restoring the injured resources to baseline *plus* compensation for the interim loss of resources from the time of the injury until full recovery. The interim loss component is designed to compensate for the reduction in the public's enjoyment of natural resources, in non-market uses as well as market uses.

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[41] The public trust doctrine provides that the government hold in trust property and natural resources for the benefit of the public. *Parens patriae* is similar to the public trust doctrine and provides the legal basis for a state to assert a claim on behalf of its citizens when their health or welfare is threatened *See* Ward, Kevin & John Duffield, *Natural Resource Damages :Law & Economics*, (1992), at 11-23 for a discussion of these doctrine.

[42] See *Sierra Club v. Department of the Interior*, 376 F. Supp. 90 (1974)

9.6 Compensation for Reinstatement of Natural Resources

The concept of pollution damage under the international civil liability scheme is brooded in ambiguity. The scope of the concept is limited and narrow in its approach to provide full compensation for damages to natural resources. The aspect is again an area where the Oil Pollution Act,1990 tries to score more in terms of its broad and rationalised scheme to address all aspects of marine ecological restoration. The Act also introduce the concept of natural resources, offers a definition of natural resources and advocates restoration of natural resources as the test to determine compensation for environmental damage.[43]

The narrow concept of 'pollution damage' embodied in the civil liability and compensation scheme poses a major constraint to the recovery of compensation for environmental damage pursuant to carriage of hazardous substances in ships. As seen with respect to civil liability scheme for marine oil pollution damage, 'pollution damage' was restricted to loss or damage outside the ship resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, and includes costs of prevention measures and further loss or damage caused by preventive measures.[44] The IOPC Fund viz., the authority administering the scheme issued several

[43] Carol Adaire Jones, **"**Compensation for Natural Resource Damages from Oil Spills: A Comparison of USA Law and International Conventions" Copy available at *http://ssrn.com/abstract=1656.*

[44] The Civil Liability Convention,1969, Art.1(6)

guidelines regarding its implementation. As articulated by the Fund guidance document, the first component of damages is limited to costs of cleaning or replacing property damaged as a consequence of the spill and to lost earnings or profit "suffered by those who depend directly on earnings from coastal or sea-related activities." The "preventive measures" covered was also limited to "reasonable" post-spill expenditures designed to prevent or minimize pollution damage, and typically w include clean-up operations on shore and at sea as well as measures to prevent physical damage. This measure of pollution damages reflected only claims for damage to private property and removal costs but did not cover damages to natural resources in the public domain.

Later developments made through the 1992 Protocol amended the definition of pollution damage to incorporate a reinstatement -based calculation of compensation for environmental pollution damage. The new definition included costs of reasonable measures of reinstatement actually undertaken or to be undertaken" also recoverable as compensation for pollution damage.[45] But the absence of a definition or explanation to what constitute reinstatement costs again created brought in ambiguity Even though IOPC Fund Assembly working group met to arrive at a consensus in this regard not much result followed . An IOPC Fund Working Group met during 1994 to establish guidelines for implementation of the reinstatement cost provisions. Even after the amendment there was no consensus arrived as to costs of recoverable

[45] The 1992 Protocol to Civil Liability Convention, Art. 2(3)

compensation for restoration. was confusion as to whether reinstatement measures should refer not only to restoration of the injured or destroyed resources themselves, but also to replacement of injured or destroyed resources or acquisition of the equivalent when restoration is not feasible. The final report does not provide explicit guidance on the issue. The Working Group agreed on the following criteria for admissibility of reinstatement claims: the costs should be reasonable, should not be disproportionate to results achieved or reasonably expected to be achieved, and should be appropriate and offer reasonable prospect of success.

But the position under the U.S. system is in contrast to the international scheme and provides a clear view of how to address compensation for marine environmental pollution damage. The OPA, the primary federal statute in the US establishes liability for injuries to loss of or use of natural resources due to discharge of oil. The Act also defined the term natural resources. It tries to combine the common law principles of Public trust doctrine and *Parens Patriae* and thrust responsibility on the sovereign of the state to protect and preserve the marine environment. The Act also calls up on sovereign to designate officials in natural resource management agencies to serve as trustees for natural resources on behalf of the public. Under the Oil Pollution Act, the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce was designated to write the implementing regulations. Accordingly the natural resource damage claims under the Act have been stated to have three basic components viz., cost of restoration, the diminution in value of

those natural resources pending recovery of the resources to baseline, *but for* the injury (compensation for interim losses) and the reasonable cost of assessing those damages. Therefore costs incurred on restoration of injured resources to the baseline (*but-for* the spill) conditions including natural recovery, removal costs of contamination, restoration or rehabilitation on-site, or off-site replacement and or acquisition of equivalent resources are all recoverable . Costs for impairment of ecological services during the interim period from the injury until full recovery like of loss recreational facilities like swimming aesthetics can also be claimed. Finally the Act also provides for the recovery of reasonable assessment costs incurred by trustees. The statute also specifies several other elements of damages on account of the net loss of taxes, royalties, rents, fees or net profits due to the injury, destruction or loss of real property, personal property, or natural resources[46]. This component again is recoverable by the Government of the U.S.A., as trustee. This is in addition to liability for removal or clean up costs.

Until 1996, the two major international conventions addressing oil spill liability, the 1969 International Convention on Civil Liability for Oil Pollution Damage and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage did not hold the responsible party liable for damages to natural resources, except to compensate for lost profits and earnings of commercial users of the resources. However, the

[46] 33 U.S.C. § 2702(b).

1992 international Convention Protocols, which entered into force in May 1996, include the costs of resource "reinstatement" measures. A clear definition of the scope of reinstatement has not yet been provided by the International Oil Pollution Compensation Fund 1992, the international organization administering the compensation regime.

The basic framework for public damage claims under natural resource liability statutes in the USA is the cost of restoring the injured resources, plus compensation for the interim loss of resources from the time of injury until their full recovery. The inclusive measure of public damages in the U.S. law, the Oil Pollution Act of 1990, captures the social losses due to the reduction in the public's enjoyment of natural resources. Consequently, Oil Pollution Act can provide the affected public with effective compensation for natural resource injuries, while at the same time providing incentives to responsible parties to invest in pre-spill preventive activities to reduce future injuries.

Precedent exists in other international conventions for a broad interpretation that is consistent with the U.S. statute. An interpretation of "reinstatement", along the lines of the resource compensation concepts in these regulations, could provide an inclusive measure of compensation for injuries to the public from spills such as the *Sea Empress* spill. At the same time it would provide incentives to invest in pre-spill preventive activities to reduce future injuries Furthermore, such a measure would not contravene the policy

previously articulated by the IOPC Fund Assembly that only losses quantifiable in financial terms may be claimed.

9.7 Compensation for Extensive Environmental Pollution Damage

The extend of compensation for marine pollution damage caused during transport of hazardous substances is limited by two aspects, limitation of liability provisions and Compensation limits set by the Funds available for pollution damage. This makes recovery of accidental pollution damage to marine environment beyond the limits of funds as in the case of *Exxon Valdez*, *Erica*, *Prestige* etc, unrecoverable. The unpredictability about the happening of a major casualty in future and the extend of damage that may be caused to marine environment questions the legitimacy of the current scheme.

The general principle under tort law for ascertaining loss and awarding of compensation is '*Restitution in integrum'* which means that victim shall receive full compensation. But there are certain exceptional situations where the liability may be capped to a certain amount which is known as 'limitation of liability' or 'financial caps'. This principle has come to occupy a long tradition under general maritime law for limiting the liability of ship owner for maritime claims.[47]There are also several other areas where the principle have

[47] Internationally, there have been conventions on the limitation of liability of the ship owner and its representatives, for general maritime claims like the International Convention for the Unification of Certain Rules Relating to the Limitation of Liability of Owners of Sea-going Vessels(Limitation Convention 1924), International Convention relating to the Limitation of the Liability of

been used to provide for the right of limitation of liability like liability for the carriage of goods by sea, the carriage of passengers by sea, and for the transportation of hazardous substances.[48]

Since the limitation of liability principle was a long traditionally established practice for limitation of liability of ship owners, there was little debate at at international level while accommodating this principle for fixing liability of ship owner for marine accidental oil pollution damage from ships. The concept was mainly justified in order to obtain insurance and as a mechanism to counter balance the harsh effects of strict liability. Deliberations at the international conference to adopt the Civil Liability Convention, 1969 centered only on the adequacy of compensation, insurability of amounts, costs of clean up etc.

As a result limitation of liability came to be established as an aspect of the scheme for civil liability for oil pollution damage under the CLC,1969,

Owners of Seagoing Ships 1957 (Limitation Convention 1957), Convention on Limitation of Liability for Maritime Claims 1976(LLMC 1976) and its 1996 Protocol (LLMC 1996) etc.

[48] These conventions include, the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading of 1924 and its 1968 Protocol, United Nations Convention on the Carriage of Goods by Sea 1978, the Convention relating to the Carriage of Passengers and their Luggage for the carriage of passengers by sea; the, Convention for the Unification of Certain Rules relating to International Transportation by Air, known as the Warsaw Convention 1929,Paris Convention on Third Party Liability in the Field of Nuclear Energy, 1960 all contain similar provisions.

which thereafter served as the basis for other hazardous substances also. But the financial limits introduced were usually challenged by major pollution casualties making the limits inadequate with happening of new incidents with ever increasing pollution damages. For instance the limits of liability and compensation amounts that was fixed by the Civil liability Convention for oil pollution damage,1969 and the Fund Convention, 1971 which came in to effect in 1975 and 1978 respectively became inadequate to provide compensation resulted out of Amoco Cadiz incident in 1978. Because the damage caused by the incident exceeded the limits prescribed under the scheme. This triggered adoption of 1984 protocols to revise the limits. But the 1984 limits proposed did not enter in to force due to non ratification by the US. Again the *Exxon Valdez* (1989) incident that hit the US waters posed a threat to the existing limits under International scheme. But the US since it was not a party to the international scheme for oil pollution damage, adopted a unilateral scheme by adopting the OPA in 1990. As a reaction the 1992 protocols were adopted to the international scheme to adopt limits originally agreed under the 1984 protocols. Again after the occurrence of *ERIKA* (1999) and the *Prestige* (2002) demonstrated that then existing limits under international scheme is inadequate. Additionally the European Community also condemned the limitation and compensation amounts as insufficient and proposed to set up a regional fund for Europe. Threatened by this, the IMO increased the limits by more than fifty percent in 2000. In 2003 IMO also adopted the supplementary protocol to provide for third tier of compensation to deal with damages above the limits

covered under the Fund Convention. The principle to limit the liability of the ship owner was easily accepted at the 1969 conference while drawing the civil liability scheme without discussing its legitimacy to suit needs of marine pollution damage. Compared with the prior situation where the liability of the ship owner was based on general tort principles or fault, the strict liability if imposed on the ship owner would bring harsh results. The limitation of liability was also welcomed as a mechanism of cost sharing between all those involved and benefiting from the maritime adventure, rather than imposing all the losses on one single party. The interest in making the claims insurable and thereby bring predictability also was a reason behind adoption of limitation of liability. But the uncertainty attached to quantum of damage, as experienced with the casualties that occurred, since the adoption of CLC in 1969, makes it clear that liability limits become unpredictable with new incidents. The changing limits to keep pace with new liabilities make new insurable limits also. At the same time financial caps allow the industry to pay only part of the damage thereby leaving a certain amount of loss as not redressed. Naturally this state of affairs leads to the argument for lifting limitation of liability for pollution damage[49]. But again considering the historical reasons for which limitation of liability is

[49] The need for scrapping the concept of limitation of liability from maritime law in general and marine oil pollution damage in particular have been advocated in modern era by several authors.

See Michael Faure,Wang Hui , "Finacial Caps for Oil Pollution Damage : A Historical Mistake?" 32 *Marine Policy*, (2008), 592–606, Gauci G. "Limitation of liability in maritime law: an anachronism?" 19 *Marine Policy*, (1995), 65–74.

introduced, that necessarily is not an apt solution. At the same time inherent uncertainty attached with accidental marine pollution damage is not a reason to disallow compensation for environmental damage. Therefore it is submitted that within the existing scheme may be accommodated to suit the peculiar needs of marine accidental pollution damage. An open ended Fund with out any limits contributed by taxes as in US may be adopted as an alternative at international level.

Liability limits are also prescribed for hazardous and noxious substances and follow the same pattern as that of civil liability scheme for oil pollution damage. While the HNS Convention, 1996 lays down limitation of liability HNS fund established under the convention provides for limitation amounts[50]. Pollution damage and liability aspects arising out of transboundary movement of hazardous waste is addressed under the Basel Convention whereas financial limits for liability have been fixed under the protocol to Basel Convention[51]. Similar provisions exist in relation to liability arising out of nuclear substances[52].

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[50] See International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea,(HNS Convention), 1996,Art.9 deals with limitation of liability, Art.14 HNS Fund limits

[51] Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, Art.4& Annex B for limitation of liability and Compensation limits.

[52] The operator of the facility is liable for the damage. Civil liability aspects for pollution damage is dealt under the Paris convention 1960 and Vienna convention,

But a major criticism levelled against fixation of compensation limits for pollution damage from hazardous substances is the impossibility to gain full compensation for pollution damage suffered. And the compensation limits may prove outdated with happening of another damage pollution that may be far above the limits fixed under law. Before that cause attempting to carve out a solution it is better to have a glimpse of state practice. UK has played a lead role in implementing the compensation schemes for pollution damage adopted at international level.[1]A notable feature of the U.K. position is that their regulation does not exclude tortious remedies available under common law. As a result this criticism cannot be accepted in full under UK system and the scope for claiming compensation does not accept of these limits. India also follows an accommodative attitude towards internalization of international compensation limits relating to oil pollution damage. In regard to Hazardous waste, even though India is a party to Basel Convention, 1989 it has not implemented Basel protocol that lays the limits. The liability for nuclear damage is also not dealt with in India. But the U.S. takes somewhat different approach and is conservative towards the concept of limitation of liability itself. The U.S. is not a party to most of the measures discussed here and has its own independent regulations. The U.S. adopts higher limits of compensation and attempts the victims to gain complete compensation. An additional level of compensation is provided out of SUPER FUND for compensation claims for

1963 supplemented by the Brussels Convention and linked by the 1988 Joint Protocol .

HNS including hazardous waste in the U.S. There the Oil Pollution Act, 1990 prescribes unlimited liability on ship owners for marine pollution damage pursuant to carriage of oil in ships. The U.S. judiciary's attitude towards the concept of limitation of liability as exposed through cases like *Mary Land Casualty Co. Et al v. Cushing Et al*[53] shows appears antagonistic. Lord Black J. equating the concept to a measure of congress to subsidise shipping observed that "….if subsidies were needed they should come from the public purse and not at the expense of injured persons"[54]. The U.S. judiciary in *Pettus v. Johnes and Laughlin Steel Corporation* called limitation of liability an 'anachronism' in the modern business world.[55]

9.8 Indian law on Limitation of Liability

Indian law has incorporated both the general limitation of liability frame work and the specific regimes for limitation of liability arising from incidents involving pollution damage[56]. The general framework for limitation of liability established under the 1957 Convention has been incorporated in to its merchant shipping law.[57] Pursuant to the 1976 Limitation Convention,

[53] 98 L. Ed. 2d.806 (1954)

[54] *Ibid*

[55] See 322 F. Supp. 1078 at p.1082

[56] For an analysis of limitation of liability for general maritime claims refer Samareshwar Mohanthy, *Maritime Jurisdiction and Admiralty Law in India*, Universal Law publishing Co. Ltd., Delhi, (2011), pp.121-126.

[57] See The Merchant Shipping Act,1958, part XA,

Indian Merchant Shipping Act, 1958 was amended in 2002 to update its provisions. Accordingly, ship owners liability arising out of maritime claims pursuant to collision and accidents of ships stands limited subject to the limits and tonnage of ship without regard to the actual value of the ship.[58]The owner of a sea-going vessel may limit his liability in respect of any occurrence to his vessel resulting in loss of life of personal injury or loss of property or damage to cargo either in respect of persons or property carried on his vessel or on another vessel as also any liability in respect of damage to a vessel. The owner is entitled to limit his liability in respect of all such claims arising from one occurrence, provided that the occurrence giving rise to the claims did not result from the actual fault or privity of the owner.[59] The limitation of liability provisions is sufficient to covers damage done by ship including pollution damage to property, harbour works port amenities and consequential losses.[60] The persons entitled to limit liability is also in conformity with international norms.[61] Very few cases on limitation of liability have been moved before our courts. Among them, in *World Tanker Carrier Corporation v. SNP Shipping Services Pvt. Ltd.*,[62] the Supreme Court successfully prevented forum shopping

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58 *Ibid.*

59 *Ibid*.,s.352 A

60 *Supra*.n.56, s..352A (1) (a).

61 *Ibid.*

62 A.I.R.1998 SC 2330. In this case SNP services Ship managing Company brought a suit for limitation of liability by invoking arrest of the vessel through the Bombay High Court wit respect to a collision which occurred in Portugal.

under the guise of invoking jurisdiction. There are also specific provisions under the MS Act to limit the liability of the ship owner in the case of oil Pollution damage. As seen in the International scheme, if the incident occurred as a result of the actual fault or privity of the owner, the right to limit will be lost. But limitations of liability for pollution damage arising from other hazardous substances have not been addressed specifically. In its absence the general rules in this regard have application.[63]

9.9 Conclusion

The conclusion that can be drawn from this analysis of limitation of liability and compensation is clear and simple. The concept of limitation of liability, that came to be justified for protectionist and historic reasons for limiting maritime liability, which has been made the basis for limitation of marine pollution damage pursuant to carriage of hazardous substances does not appear to be suitable . But it seems to be a mistake made by the international community.

After happening of new pollution incidents with increasing damage to the marine environment, the adaptation of the liability limits and amount of compensation becomes inevitable. The result has been a cascade of protocols, amendments and the pressure on the IMO to update the limits with happening of

[63] See The Merchant Shipping (Prevention of Pollution by harmful Substances carried by sea in Packaged Form) Rules, 2010, and the Merchant Shipping (Control of Pollution by Noxious Substances in Bulk) Rules,2010 in this regard.

new incidents. This has led to a proliferation of limitation limits under international and domestic norms. The existing anomaly is further perpetuated by lack of uniform and consistent ratification of these instruments by states. The existence of multiple regimes is contrary to the intention of international conventions to promote trade through single regime and therefore support forum shopping. This has made the law in this area unpredictable and in a state of flux.

There is need to refine the limitation of liability norms in such a way as to make it cover any extensive environmental damage through an open ended fund. The limitations of the scheme in articulating the scope of pollution damage leaves the existing scheme insufficient for recovery of environmental damage. Even though the practice followed under US regulation seems to be a better adaptable strategy to provide for full recovery of environmental damage. The natural resources restoration and ecological rehabilitation concept if adapted in to international scheme can cure it of its defects and will also bridge the gap between International scheme and the U.S. law in this regard.

Chapter -10

MARINE POLLUTION CONTINGENCY PREPAREDNESS

Many coastal states are located near to the sea routes through which for carriage of hazardous substances take place. India is also geo-strategically located in the central part of the Indian Ocean through which international sea routes lie. A good number of countries, are increasingly dependent on the Indian Ocean for their foreign trade, including oil and petroleum products mainly from the Gulf, and other hazardous substances.[1]The connectivity offered by the Indian Ocean to international straits like Malacca , Hormuz, Red Sea and the major shipping routes for transport of crude oil and other petroleum products destined for Japan, America, Europe, and South Korea from the west Asia makes this area world's most important 'oil choke point'. In addition to this, the narrowness of the sea lanes and sea routes make this area prone to accidents. The main highlight of the increasing movement of oil and hazardous substances through sea in ships is the impending pollution of the coastline, and facilities making them bear the brunt of marine degradation. The UK and the US also have become pray to many such incidents along its shores and waters.[2]

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[1] For details see Project Review and Monitoring Committee for oil spill Management, *Road Map for Oil Spill Management for India,* (2003).

[2] The UK have experienced several major oil spills like *The Brear* (1993), *The Sea Empress (1996), Torrey Canyon (1967), Rose bay (1990)* etc, the worst oil spills

The experience with seaborne carriage shows that maritime casualties are to some extend beyond our control whatever stringent the regulations are. The occurrence of such incidents poses environmental pollution damage to waters of coastal states and may also pose a potential hazard to the safety of navigation, contamination of amenities like ports, terminals, beaches etc. It is not possible to avoid accidents completely. But it is possible to remain prepared to deal with such casualties. So Marine Pollution Contingency Response Mechanism have been evolved as an application of the precautionary principle that set in since 1970's.[3] This chapter is an analysis of this scheme to deal with maritime casualties involving ships carrying hazardous substances. The chapter also examine the legal mechanism under Indian Law in order to see how far it is in consonance with its international counterpart on a comparison with that of other coastal states like the US, and the U.K..

The Marine Pollution Contingency Scheme in vogue suffers from several limitations. It is doubtful if the current scheme comprehensively address all the aspects of response and counter pollution measures vital to

that the world have ever witnessed, along its coast. Similarly it was also was prey to *MS Napoli(2007*), *ECV(2006)* involving HNS substances. It was actually following *Exxon Valdez*, the US adopted Oil Pollution Act,1990 which implements the OPRC scheme in the US.

[3] See Benedi'cte Sage, "Precautionary Coastal State's Jurisdiction", 37 *Ocean Development & International Law*, (2006), pp 359–387

prevent or mitigate pollution from a maritime casualty and adopt a holistic approach towards the concept. And it is also a matter of concern if the Scheme over looks the relevance of salvage measures, intervention powers of coastal state, place of refuge in responding to a pollution incident.

The very nature of hazardous substances and nature of the scheme involving several authorities also makes hurdles in its effective implementation. The study also examines what are the problems encountered in effective implementation of the scheme in national legal systems. With too many authorities may also give scope for multiplicity of regulations and constraints with effective co-ordination of the scheme.

10.1 Evolution of the Scheme of Marine Pollution Contingency Planning

The current regulatory scheme for marine pollution contingency preparedness has not been evolved internationally all on a sudden. The obligation of ships to plan and prepare for contingencies in order to prevent resulting pollution has evolved through several measures before an attempt to consolidate such duty was made under the International Convention on Oil Pollution Preparedness, Response and cooperation, Convention in 1990.[4]With increasing incidents involving ships carrying hazardous substances and the

[4] The International Convention on Oil Pollution Preparedness, Response and Co-operation, London, 30 November, 1990, hereinafter called "the OPRC Convention". Text of the Convention is printed at 30 I.L.M 733 (1991).

need for contingency planning as a tool to reduce marine pollution became a specific duty, at international level, under the International Convention for Prevention of Pollution from Ships, 1973.[5] But the scope of the responsive mechanism was limited to measures for ensuring reporting of pollution contingencies by coastal states to other states likely to be affected by such pollution incidents and the duty of the master of the ship or other person in charge of the ship to report the particulars of such incident without delay to the Coastal states.[6] But the UNCLOS, 1982 that followed, created a positive duty on the part of states to contribute towards contingency planning. It in addition to reiterating the duty of states becoming aware of existing or imminent pollution likely to cause damage, to immediately notify other states as well as competent international organizations and insists that the affected states initiate measures in eliminating the effects of pollution and preventing or minimizing the damage.[7]But the UNCLOS provisions, once again reiterating its umbrella nature, lacked details of contingency planning. The *Exxon Valdez* oil spill of 1989 that occurred in the waters of the U.S. brought to the limelight the absence of sound and clear principles establishing a uniform legal duty

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5 Herein after called "the MARPOL Convention", London, 2 November 1973, as amended by the Protocol signed at London, 1 June 1978. For the Text of the Convention see 12 I.L.M 1319 (1973).

6 *Ibid*, Art.8.

7 The United Nations Convention on the Law of the Sea, 1982. The text of Convention reprinted at 12 I.L.M (1982) 1261. Art.199.

for contingency planning on the part of coastal states and other interests at international level. The outcome was the adoption of OPRC convention by the IMO to comprehensively deal with marine pollution contingency planning.

Even prior to this, for over three decades since the *Santa Barbara Channel Oil Spill (1969)* efforts have been underway in the U.S. for prevention of oil spill into its waters from shipping casualties.[8] The US Coast Guard had evolved Oil Spill Prevention, Preparedness and Response measures to prevent pollution of its seas from maritime casualties. Throughout these years the coast guard has achieved notable success in reducing and avoiding oil spills through this planning .The Oil Pollution Act, 1990 which was adopted in US, has expanded the scope of Coast guard's programme through funding and broad array of regulations adopted in response to OPRC convention.[9]

The requirement of Contingency planning has received strong legal support under the British legal system. Unlike India, the International Contingency Scheme has received immediate response on the part of the U.K. legislature. The Contingency scheme in existence in Britain is rooted on well established norms mainly developed in the context of merchant shipping and supplemented by National Contingency plan and other administrative

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[8] George Burns, Robert Pond, Peter Tebeau & Dagmar Schmidt Etkin, "Looking to the Future - Setting the Agenda for Oil Spill Prevention, Preparedness and Response in the 21st Century" 7 *Spill Science & Technology Bulletin*, (2002)pp. 31–37, at p.32

[9] *Ibid.*

measures evolved by the Maritime and Coast Guard Agency.[10] The Great Britain is a party to both UNCLOS and the OPRC Convention that lays down the legal obligation to protect and preserve the marine environment by planning for maritime casualties that may result in pollution.[11] Even though Hazardous and Noxious Substances Protocol to OPRC Convention was formally adopted by the U.K., it did not ratify the protocol.[12] In the U.K., the Merchant Shipping rules implementing OPRC came in to force in 1998. In these rules there is requirement for ports, harbours, and offshore installations to prepare oil spill response contingency plans approved by the Maritime and Coast Guard Agency to maintain preparedness as specified by the plan. There is also a sound scheme of regulatory control thrusting duty on harbour authorities to hold contingency plans to prevent marine pollution of the harbour

[10] The Merchant Shipping Act, 1995, s. 293as amended by Merchant Shipping and Maritime security Act,1997 gives the secretary of State for the Environment ,Transport and the Regions the general power to initiate measures to prevent , reduce and minimize the effects of marine pollution including pollution response mechanism .

[11] See the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations ,1998

[12] Report on progress made by the U.K. in developing a methodology for implementation of new Planning and response requirements for HNS submitted by the UK to the IMO dtd 14 May 2007. See also Policy and Operational Capacity for HNS Marine Pollution: UK issued by European Maritime Safety Agency available at *http://www.emsa.europa.eu/docs/opr/ppr_hns_inventory_20-08-08.pdf.*

environment from dangerous vessels[13] and dangerous substances[14]inside harbour areas. The implementation of these duties is co-ordinated through the Port Marine Safety Code in addition to supervision by the Maritime and Coast Guard Agency through the National Contingency Plan. Since most pollution casualties inside UK controlled waters have resulted in shoreline contamination, much emphasis is placed on local contingency planning and improvement of preparedness through local action groups.[15] The U.K. has also extended its co-operation in this respect by becoming part of several regional contingency plans.[16]

Even though OPRC Convention was adopted by the IMO in 1990, the Government of India ratified it only in 1997. After that no efforts were made by the Indian legislature to provide legal basis for the OPRC convention.[17] But in accordance with the provisions of OPRC, a National Oil Spill Disaster Contingency Plan was prepared by the Coast Guard, the enforcement authority for prevention of pollution within the Maritime zones of India, in 1996. But no

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[13] See Dangerous Vessels Act, 1985

[14] Dangerous Substances in Harbor Areas Regulations ,1982

[15] Local Government Act, 1972, s.138.

[16] The U.K. is a party to Bonn Agreement ,Anglo French Joint Maritime Contingency Plan (MANCHEPLAN), Norway –UK Contingency Plan ,(NORBIT),n, The Anglo/Isle of Man Operating Agreement etc.

[17] The Merchant Shipping Act, 1958, Part 10 B, Part 11 A dealing with prevention of oil pollution from ships Could have been amended to introduce pollution Emergency plan. But no efforts were taken.

measures were taken to amend the provisions of the Merchant shipping Act dealing with prevention and containment of oil pollution from ships to adopt rules under the said Act in order to provide compliance with the OPRC Convention. There have been enough studies made addressing the issue of lack of legal basis for marine pollution contingency mechanism under Indian legal frame work.[18] Even then, for more than two decades of adopting the convention Indian legislature maintained apathetic attitude towards implementing marine pollution contingency planning. Finally in 2010 Ship board pollution emergency plan was made mandatory for ships carrying hazardous substances like oil, Noxious liquid substances in bulk by adopting the Merchant Shipping (Prevention of Pollution by Oil from Ships) Rules, 2010.[19]

[18] In view of the above and related aspects, the office of the Principal Scientific Adviser to the Government of India and the Oil and Natural Gas Corporation Limited brought together all the stakeholders in the Government and the industry to discuss the way to an adequate system for oil spill management for India. It was concluded that an "Entity", with autonomous powers, is required to be formed as per declaration of the Goa Workshop on Oil Spill Management during July 19 and 20, 2002. Accordingly a Project Review and Monitoring Committee (PRMC), having representatives from the Government and Public and Private sector oil companies was constituted to prepare a Road Map for Oil Spill Management for India.

[19] See *Merchant Shipping Act, 1958* universal Publications, New Delhi,(2011) at p.413.

10.2 Marine Pollution Contingency Planning: Meaning and Scope

The concept of Marine pollution contingency planning implies remaining prepared and planned for a maritime contingency[21]. It presupposes the existence of a Contingency plan containing the details of measures to be adopted to check the pollution of the seas in the event of a maritime casualty involving ships carrying hazardous substances. A maritime casualty may necessitate measures to be taken depending on the location of the ship, inside ports, terminals, offshore installations or near to shoreline etc. During casualties it is essential to be determined as to who is to respond to such measures and what kind of action is required, based on nature of casualty and kind and amount of hazardous cargo involved. This will help to speed up response actions and minimise the amount of pollution. The plan should also consider the availability and resources, equipments and funding to deal with response and counter pollution measures and have local, national and regional arrangements among adjacent states and pooling of resources.

Since coastal states are immediately available and exercise control over waters within its jurisdiction, the OPRC convention which lays down the scheme mean to impose extensive legal obligations and responsibility on the coastal states for showing preparedness and responding to pollution incidents through proper planning.[20] The marine pollution contingency preparedness scheme requires coastal states to develop and maintain a National

[20] Road Map on Oil Spill Management In India,(January 2003)

Contingency Plan to form the basis for showing preparedness and response capabilities towards incidents occurring inside waters within its jurisdiction.[21] Coastal states should also ensure that facilities within its jurisdiction like ports, terminals, offshore installations and ships plying its waters develop and maintain plans in conformity with national Plans.

Accordingly contingency plans in national jurisdictions tend to provide guidance about reporting of a contingency in the first instance. In the case of pollution incidents occurring on board ships, facilities , ports, guidelines suggest the person who should report, and to whom to report. On receipt of information the next step involves establishing level of response- national, regional or international making use of pooled resources. After that nature of counter pollution measures will be determined. Such measures can take the form of counter pollution measures like use of dispersants or other methods of dealing with the hazardous substances spilled for averting the pollution. The plan is expected to have details of authorities and procedures to address these issues.

In laying down the scope and meaning of the MPCP, the OPRC convention appears to be vague in detailing with preparedness and the nature of responsiveness.[22] Shipping casualties necessitates exercise of extraordinary

[21] Paul Nelson, 'Australia's National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances Overview and Current Issues' 6 *Spill Science & Technology Bulletin*, (2000), pp. 3-11

[22] *Supra*. n. 4, Art.3.

powers suited to prevent the pollution of the seas like intervention, salvage etc. But neither International scheme under the OPRC Convention nor Indian Merchant Shipping Act, 1958 tend to include them.

10.3 Salvage and Refuge Measures under Contingency Mechanism

Salvage operations and refuge measures play a crucial role in prevention of marine pollution from ships during maritime casualties. But the existing marine pollution contingency mechanism has turned a blind eye towards these aspects. This point to the need to take account the environmental concerns raised by the denial of salvage and refuge arrangements, the required place under the contingency scheme. Contingency planning can offer better results if adequate provisions are made to create obligation to plan for salvage operations and refuge measures by coastal state and ship owners.

10.3.1 Salvage Operations

Several incidents involving oil tanker ships occurred where prompt intervention of salvors had averted massive pollution of the seas.[23] Services of salvors not only help in reducing the pollution damage caused by shipping casualties but also serve the interests of the owners and their underwriters by protecting them from liability for pollution damage.[24] But marine pollution contingency planning does not mention any thing about planning for salvage

[23] Brian Makins, Peter Mc Queen & Brian White, "Salvage and the Environment"4 M.L.A.A.N.Z. (1987) pp.17-28

[24] *Ibid.*

operations that is to be undertaken in the event of a maritime casualty. The arrangements made by entering in to agreements with salvers in relation to salvage operations that may be undertaken in the event of casualties that may be encountered during the carriage of hazardous substances will necessarily help in prevention of marine pollution from ships carrying hazardous substances. Because adoption of speedy measures to arrest pollution will be easy if there is a plan and an existing agreement for availing salvage services between ship owner and salvor depending on the kind of cargo carried in the ship.

The environmental awareness saga that gained international support since 1970's and the changes that occurred in the UNCLOS, and adoption of specific international measures like the Intervention Convention,1969, the Civil Liability convention , and the limitation of liability Conventions etc., have brought to the mainstream the need for protection of marine environment in global scenario. A significant reflection of this was seen in the salvage norms for protection of the environment. The traditional salvage norms put much limitations for protection of marine environment due to prevalence of 'no cure – no pay' principle under the 1972 and 1910 Salvage Conventions.[25] But

[25] Two graphic examples of the inequitable results promoted by this approach are The Atlantic express and The Aegean Empress incidents where salvors, even though, could by their efforts prevent pollution damage, could not gain remuneration as ships were lost by explosion due to the strict application of 'no cure – no pay' principle to pollution damage cases. Refer also Peter Coulthard, "A New Cure for Salvors? – A

the new Salvage Convention, 1989 has introduced innovative provisions to encourage salvors undertaking salvage operations to receive full compensation in respect of their efforts to protect the marine environment. Due to these aspects and concern of international community for protection of marine environment, and the boost given to the salvage industry, there is a dilution of the No-cure No- pay Principle.[26] This part focus on the necessity to include planning requirements for salvage operations as part of pollution contingency planning.

10.3.2 The Role of Salvage Measures under English Scheme

The role of Salvage measures in preventing pollution from shipping casualties stands specifically discussed and planned under the U.K. scheme.[27] In the case of pollution incidents and threat of pollution damage from ships in to the English waters, the coast guard is the competent authority to deal with salvage operations. In the first instance it seek information from the master or owner of ship. and salvor, if already engaged, to make an assessment of the

Comparative Analysis of the LOF 1980 and the CMI salvage Convention" 14 *J. Mar. L. & Comm.*,pp. 51-55.

[26] See George Tsavliris (International Salvage Union), "Safe Havens from a Salvor's Point of View," and Steve Lewis, "Making Decisions for Ships in Distress—A Risk Based Perspective," papers presented at the conference "Clean Seas," London, 12 June 2001.

[27] See Appendix- H, The UK National Contingency Plan For Marine Pollution From Shipping And Offshore Installations (2006). Appendix- H deals with salvage requirements that have been made part of salvage arrangements to be planned.

situation. Based up on this information the Secretary of Sttate's representative[28] will decide whether existing salvage arrangements are sufficient or intervene and set up a Salvage Control Unit to take control of the situation and deal with the casualty for initiating pollution prevention measures.[29] SOSREP uses all the information available to assess whether the actions proposed are in the public interest. SOSREP also considers what should happen if the current salvage plan goes wrong or the incident escalates in severity. He is empowered to exercise intervention powers to what ever extent is required in the public interest and may take control of the salvage operation, by issuing directions. If SOSREP takes control of a salvage operation, all those involved will act on his directions. In other cases, the salvors operate by agreement with, or with the tacit approval of, SOSREP. The SOSREP may also establish an onboard salvage team. SOSREP strictly monitors and, if necessary, controls access to the casualty.

[28] Hereinafter called the "SOSREP".

[29] The members of the SCU in U.K are: SOSREP; the Salvage Manager from the salvage company appointed by the ship owner; the harbour master, if the incident involves a harbour or its services, a representative nominated by agreement between the ship owner and the insurers a PCPSO, an Environmental Liaison Officer, nominated by the Chair of the Environment Group, and if SOSREP decides to appoint one, SOSREP's personal salvage adviser. DMO, or HOO, controls the salvage operation from the Marine Emergencies Information Room at MCA headquarters while SOSREP is en route to an MRCC, a Marine Rescue Sub-Centre (MRSC), or other appropriate forward base, and until he has established the SCU. DMO or HOO also activate all members of MCA Counter Pollution Branch necessary to assist in the response.

10.3.3 Ship Board Emergency Plan in India

The significance of Salvage measures for preventing pollution from shipping casualties does not make any reflections under the Indian law. Merchant Shipping Act, 1958 refer to salvage for saving cargo and wreck and does not specifically deal with salvage or salvage remuneration for preventing pollution damage.[30] Even though in 2010, Ship Board Emergency Plan has been made mandatory for ships carrying hazardous substances like oil, hazardous and other Noxious Substances, it is not clear whether Salvage arrangements need to be made. The Rules merely refer to the "procedures" and does not convey any idea as to what are the different types of procedures for prevention of pollution.

10.3.4 Refuge Measures

Another important facility vital to mitigation of pollution from casualties let out of contingency planning mechanism is planning for "Place of Refuge" for ships carrying hazardous substances. The availability of a place of refuge for ships in distress often enhances the options for pollution control. In cases where the ship involved in the causality is loaded with hazardous cargo, as it happened with *the Castor*, the cargo need to be discharged first to prevent pollution. In such circumstances and place or port of refuge often may serve as

[30] See The Merchant Shipping (prevention of Pollution by Oil from Ships) Rules, 2010 , r.37. It imposes duty to carry Ship Board Emergency Plan for oil and HNS on board ships.

a better option in the attempt to prevent pollution from casualties involving ships carrying hazardous substances. For instance in the case of *The Castor*, the Tanker involved in the accident was fully laden with gasoline at the time of the casualty.[31] But the ships was refused refuge to safe waters and unload the cargo to undergo repairs, by seven coastal states. Hence the stricken ship had to navigate with the hazardous cargo as a "leper ship" posing the threat of pollution for 30 days. Similarly, *The Erika* sank in bad weather in the Bay of Biscay and causing catastrophic damage to French coastlines after its call for refuge was refused by port authorities in France.[32] In all those instances a timely refuge offered to the ship might have saved the cargo and adverted pollution of the seas.

The issue of place of refuge for ships carrying hazardous substances has not received a positive nod from coastal states, because of the environmental risk attached to them in giving such refuge. So what is needed is a different attitude by coastal states that reflects a more genuine balance between coastal and marine security interests and the need to assist such ships, in distress. Coastal states should be assume more responsibility to assist such vessels as part of their integrated ocean management responsibilities in their maritime zones, rather than passing on the problem[34]. The OPRC convention should also

[31] For more details see Aldo Chircop, "Ships in Distress, Environmental Threats to Coastal States, and Places of Refuge: New Directions for an Ancient Regime?," 33 *Ocean Development & International Law*, (2002) ,207-226.

[32] *Ibid.*

make it obligatory for coastal states to plan for places of refuge in its waters where ships carrying hazardous substances may be sheltered, unload cargoes and repaired if they are in distress. In fact, this policy has been followed by the U.K. The National Contingency Plan in the U.K. also refer to its obligation to arrange for Place of refuge for ships.

10.3.5 Coastal states power to Intervene

Coastal states power to intervene is another inevitable aspect of marine pollution contingency planning scheme. Coastal states power of intervention allows it to initiate measures adequate enough or proportionate to prevent or minimise pollution damage or threat of such damage following a maritime casualty. This power has been exercised for the first time by the U.K. during the *Torrey Canyon* Incident in 1967 to bombard the oil tanker ship and set the oil spilled to prevent contamination of its shoreline. Following this incident the Intervention Convention was passed by IMCO in 1969 to provide for the coastal states power of intervention in to maritime casualties.[33] This part examines legal basis of intervention for the purpose of marine pollution contingency planning.

[33] The International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties 1969, its Protocol relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, 1973. Article 221 of UNCLOS may be looked in to in this context. All these together confer power of intervention under international law

Coastal states right of intervention in maritime casualties occurring in waters within the jurisdiction of coastal states is not addressed directly under international law. The Law of the sea Convention also does not contain any direct provisions giving coastal state right to intervene during pollution casualties. However, the UNCLOS III provides that it is not to "prejudice the right of states pursuant to international law, both customary and conventional" to intervene in the manner prescribed "beyond the territorial sea"[34]. But whether coastal state possesses power of intervention on the high seas under customary international law is controversial.[35] According to some authors, there must have been some doubt about this question otherwise it would not have been necessary to have concluded the intervention convention. According to them, it can be argued that the British action against *Torrey Canyon* would have constituted an emergency rule of customary international law which was clarified by the intervention convention.[36] Even if Intervention Convention could be taken as the customary law in this regard still it is doubtful whether

[34] The UNCLOS III, Art. 221, states 'Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences'

[35] Robin Rolf Churchill & Vaughan Lowe, *The Law of the Sea*, Manchester University Press,(1998), p.26

[36] *Ibid.*

there is clarity as to the right of coastal states to intervene in maritime casualties occurring inside waters within the jurisdiction of coastal states. The limitation of Intervention convention to the high seas would mean that coastal state could not rely on the Convention in such a case. This is because the scope of these measures as per the convention and its protocol is limited to pollution casualties occurring on the high seas.

As far as power of Coastal state to intervene is concerned the customary international law in this regard stands crystallised under the Intervention Convention,1969.[37] Under this convention coastal states can issue directions and take measures in respect of ships and its cargo in order to prevent or minimise pollution or threat of pollution following a maritime casualty. The Convention also prescribes several safeguards to ensure proper exercise of this power and to prevent its misuse by coastal states like liability to pay compensation, need for consultation with affected interests, flags states, and cargo owners before resorting to intervention etc. One problem with the Intervention Convention, 1969 and its 1973 Protocol is that they apply only to intervention measures against casualties, taken on the high seas. The limitation of Intervention convention to the high seas would mean that coastal state could not rely on the Intervention Convention and its protocol to take action related to casualties occurring inside waters within the jurisdiction of coastal state.

[37] The Intervention Convention, Art.3& 4.

But practice of states like the U.K. shows that despite its limitation to high seas, the intervention convention form the basis for exercise of power to intervene into maritime casualties under its merchant shipping laws both waters within in its jurisdiction and on the high seas.[38] Separate law addresses the power of intervention for ships inside the U.K. waters and outside it's pollution control zone. Same criteria is applied to determine whether there is right to intervene in accidents, threat or actual pollution that may reasonably result in major harmful consequences. In the U.S., power to intervene stands recognised both with in its waters and on the high seas.[39] India is not a party to Intervention Convention. Indian law has neither accommodated this precious right into our scheme nor does it form part of India's National contingency Plan adopted by the Coast Guard. Therefore the marine pollution contingency planning scheme can not be treated as comprehensive. International scheme has to undergo a change in this regard.

[38] See the Merchant Shipping Act, 1995 ss. 137 & 138A, regulates power inside the U.K.'s Territorial waters and its Pollution Control Zone. And foreign ships outside its pollution Control Zone are governed by the Merchant Shipping (Prevention of Pollution)(Intervention)(Foreign ships) Order 1997. The section 100C inserted by specifically deal with UK's right as a coastal state UNCLOS. See also the Maritime security Act, 1997.

[39] Intervention on the High Seas Act, 33 U.S.C. §§ 1471-1487, § 1479.

10.4 Authorities for Implementation of the Marine Pollution Contingency Mechanism

The implementation of marine pollution contingency planning mechanism is entrusted to many authorities. The very nature of hazardous substances with its differing characteristics necessitates separate response measures and involvement of authorities for its implementation. Additionally the nature of waters within which the pollution incident occurs viz., port, offshore installation or shoreline also determine which authority to initiate response measures. Finally the kind of response required viz., salvage or intervention etc also have a say in this regard. But this state of affairs, in the absence of effective co-ordination can result in overlapping of jurisdiction and multiplicity of rules and regulations which are neither inter-related nor is capable of providing a comprehensive scheme to address all aspects of contingency response.

In most of the jurisdictions coast guard authorities are vested with enforcement authority. It has overall authority to implement the marine pollution norms in maritime zones. The Maritime and Coast Guard Agency (MCA), is the national competent authority responsible for enforcement of contingency preparedness and response mechanism in the U.K. The Indian[40]

[40] The Indian Coast Guard Act, 1978, s.17 allows Coast Guard to enforce marine pollution norms within India's Maritime Zones.

and the U.S.[41] schemes follow the same pattern. But under Indian scheme, the implementation of scheme fall within the competence of different ministries and authorities due to the dichotomy of operational from functional responsibility and legal from administrative responsibility for marine pollution contingency response.[42]For instance, the Coast Guard is entrusted with the operational aspects of pollution response mechanism inside the maritime zones. But the legal and administrative aspect fall under the purview of Ministry of Shipping. Functionally the Coast Guard falls within the competence of Ministry of Defence. This dichotomy tends to affect the smooth implementation of pollution response scheme.[43]

Again the enforcement of pollution response measures inside ports is the responsibility of Indian Coast Guard, whereas legislative competence in relation to prevention of pollution inside the ports falls within the purview of the Ministry of shipping. Since port authorities have complete jurisdiction within port limits, the implementation of National Oil Spill Disaster Contingency Plan by Coast Guard which falls under Defence Ministry can result in some conflicts. Coast Guard being an authority beyond the purview of

[41] See the Oil Pollution Act, 1990, U.S. Coast Guard is the leading federal agency for responding to oil and hazardous material spills and releases in to it's Coastal and Marine Environment.

[42] Dr.Sangeetha Sonak, Report of Project on Review of marine and coastal policies in India , The Energy and Resources institute , GOA Report available at http://www.teriin.org/teriwr/projects/tbtpresentations/sreviewmarine.pdf

[43] *Ibid*.p.4

Ministry of Shipping, implementation of this plan is often faced with challenges like lack of co-operation on part of ports in providing information about pollution incidents occurring within port's limits,[44] non adoption of Port pollution response plan on coast Guard's recommendation etc.[45]

In areas like the coastal waters and shoreline, the local administration of the concerned state, exercises jurisdiction through the state pollution Control Boards. The state pollution control boards and local authorities are required to render all possible assistance to the Local Action Group in giving effect to the Contingency Planning measures. The state pollution Control Boards are working under the Ministry of Environment and Forests which regulate use of dispersants during contingency measures. A reference to the British practice shows that a similar scenario is in vogue there also. But the Department of Environment, Transport and Regions which has been thrust with primary policy responsibility for these issues have several divisions to address different issues related to marine pollution. Its shipping policy division takes care of marine pollution from ships where as the port's division addresses the

[44] This issue has been point for discussion in several pollution preparedness meetings organised b y the Coast Guard. See Proceedings of 16th Nos-Dcp and Preparedness Meeting,2011 , available at *http://www.indiancoastguard.nic.in/Indiancoastguard /NOSDCP/NOSDCP%20Publications_files/NOS%20DCP%202011.pdf*

[45] See Proceedings Of 14th Nos - DCP And Preparedness Meeting 2009 convened by the Indian Coast Guard available at *http://www.indiancoastguard.nic.in/ Indiancoastguard/NOSDCP/NOSDCP%20events_files/14THNOSDCP/14th%20 NOSDCP_files/NOC%20DCP.pdf*

pollution incidents inside ports. But the Maritime and Coast Agency control and monitor[46] the involvement all other agencies through its National Contingency Plan by clearly streamlining each authority's area of action in implementing the scheme at the same time vesting the control within itself through the National Contingency Plan. The Maritime and Coast Guard Agency is entrusted with the duty to adopt the national Contingency Plan for responding to pollution casualties occurring inside the UK's waters and plans of all other facilities are required to be in conformity with National Contingency Plan.

Similar to the U.K. and the U.S., Indian Coast Guard has also adopted National Oil Spill Disaster Contingency Plan to give effect to international contingency mechanism for prevention of pollution from ships. The receipt of information by MCA of marine pollution or threat of pollution sets in action by the Coast Guard authorities in the U.K. The PCPSO decides what level of response -national, regional or local, the incident warrants and initiate counter pollution measures as necessitated by the incident depending on the nature and location of incident. Depending on decision of PCPSO Counter pollution measures are made through three separate but inter linked response units created under the NCP. Salvage operations are handled by the Salvage Control Unit, Marine Response Centre deal with response action at sea and action on

[46] Refer Maritime and Coast Guard Agency, National Contingency Plan (UK), (2006).

the shore and harbour is dealt with by the Shoreline Response Centre . But the Plan adopted by Coast Guard did not provide for any salvage control unit. In the case of incident requiring salvage operations, the Secretary of State's Representative takes over the control under the U.K. scheme. The Plan also takes account of associations like P&I clubs, Cargo associations, Pollution liability associations and Non-governmental environmental organisations and clearly streamline their role in regard to marine pollution contingency planning and response.[47] But such a hierarchical system with superintendence to Coast Guard is absent under Indian system. The National Oil Spill Disaster Contingency Plan also not contain any provision to streamline the duties of departments at the same time ensuring co-ordination of authorities.

In addition to sharing of responsibility for contingency planning by shipping ministry , coastguard and port authorities, Central and State government also wield some responsibility depending on whether a port is major or minor port. Since major ports come under the Central government it influences adoption of contingency planning in these ports. The state pollution control Boards and Maritime boards has similar influence over minor ports. Several authorities like Department of Ocean Development, Department of Agriculture and Co-operation, and Mercantile and Marine Department which assist the local action groups in giving effect to the scheme. There is apart from cargo interests other interests directly or indirectly associated with

[47] *Supra* n.26

implementation of this scheme. In the U.K. and the U.S. the local plans are also subject to control by Maritime and Coast Guard Agency.

Hence it must be accepted that the nature of the scheme itself admits too much authorities in functional and administrative capacity. This will necessarily have repercussions in terms of multiple norms and overlapping of authority. Hence the situation demands a judicious allocation of authority without overlooking the object underlying the OPRC scheme. In this regard the NCP of the U.K. can be of help to India. Regulations under Indian scheme should take account of the need for co-ordination between the coastguard and other departments connected with the scheme in their official capacity. Coast Guard can be accorded lead role in this regard as in the U.K. provided merchant shipping laws implementing OPRC should clarify and make explicit its monitoring capacity. It is submitted that Merchant Shipping Act, 1958 primary umbrella legislation regulating merchant shipping in India may be amended to give effect to provisions of OPRC Convention and its protocol. Additionally role of Coast Guard in this regard may also be clarified in this respect in order to enable it to exercise supervisory control over all authorities and agencies assisting the implementation of the scheme.

10.5 Marine Contingency Planning: A Critical Appraisal

The current scheme for marine pollution contingency planning evolved over years through a number of instruments. As a result there is no single comprehensive legislation providing the legal basis for the obligations of ships

and coastal states relating to marine pollution contingency planning, despite the attempt to consolidate was made under the OPRC Convention. The multiplicity and overlapping of different instruments stands reflected in the national schemes including India because marine pollution from ships falls under the realm of international law national regulations have to closely follow international norms.[48] In addition to this, the go slow approach of Indian legislature towards implementation of OPRC scheme has led to absence of legal basis for the scheme for two decades after India ratified the same.[49] Prior to the accession of OPRC Convention in India, the National oil spill Disaster Contingency Plan had been evolved in 1996 by the Coast guard. The coast guard was also designated as the central authority for spill response activities inside the maritime zones of India. After that no legal basis for marine pollution contingency response mechanism has been created until 2010.[50] The rules adopted under the Merchant Shipping Act only refer to the need to have Shipboard Pollution emergency Plan for ships carrying Oil and other noxious liquid substances and does not mention about Coastal states obligations under

[48] Road Map for Oil Spill Management for India,(January 2003).Coast Guard, Implementation of OPRC Convention in India –A Report (1999) Also see Indian Coast Guard, Blue Waters,(January 2011), p 1-20 to get details of pollution incidents in Indian waters.

[49] *Ibid.*

[50] The Merchant Shipping (Prevention of Pollution by Oil from Ships) Rules,2010

OPRC convention.[51] The absence of a fool proof statutory provision laying down the legislative policy regarding contingency planning standards, adopted by the Coast guard is a major issue. The present scheme has the status of an administrative direction only. It is submitted that in the absence of provisions under Merchant Shipping Act, 1958, the National Contingency Plan is only an administrative measure that does not have sufficient legal basis. Hence, in order to cure this defect it is necessary to raise these administrative measures to the status of legal obligation. It is proper to introduce Rules under the Merchant Shipping Act to give effect to the OPRC convention.

The contingency scheme that started with oil pollution has achieved great acceptance among international community and a great deal of uniformity have been achieved in the adoption and implementation of plans to deal with oil pollution incidents.[52] Even though oil carried as cargo can be of different types, the hazard and danger posed by oil is relatively low. Therefore equipment and options to deal with oil remained standard. This is one reason why OPRC Convention gained good compliance.[53] But it is doubtful if similar level of acceptance has been achieved with respect to norms dealing with other hazardous substances. The varying degree and type of hazard due to the wide

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[51] *Ibid*, Chapter 5 deals with Prevention of oil pollution from pollution incidents.

[52] See Generally Patricia Charlebois (IMO), Report on Preparedness, Response and Cooperation for Oil and Chemical Incidents, OPRC & HNS - Recent Developments and New Challenges, (June 2006).

53 *Ibid*

variety of substances and the potential threat to human beings handling them remains a constraint. Lack of expertise and knowledge about HNS, and the equipment and techniques to deal with pollution incidents involving them also posed great challenges in the implementation of pollution contingency and response underlying the OPRC Convention and its Hazardous and Noxious Substances Protocol.[54] This, in fact, has slowed down its ratification and implementation of H.N.S. protocol among world community. The expense and expertise with adoption of new plans makes it wise to update the existing plans for oil pollution incidents to accommodate H.N.S. also as in the U.K. and the U.S. Indian Coast Guard have also tried to accommodate H.N.S. plans with existing National Contingency plan. On the legal front an important issue that still remains is that India has not ratified the H.N.S protocol.

Absence of a wholesome approach towards marine pollution contingency planning is a pressing issue. No marine pollution contingency plan can be complete unless it touches up on all aspects vital for dealing with marine pollution control. In the absence of salvage arrangements to be resorted to in the event of pollution casualty the scheme will remain ineffective in addressing pollution contingencies. Similarly the place of refuge to provide for

54 See Proceedings Of 16th Nos - Dcp And Preparedness Meeting 2011, The Report is available at *http://www.indiancoastguard.nic.in/Indiancoastguard/NOSDCP/NOSDCP%20Publications_files/NOS%20DCP%202011.pdf* . This issue has been point for discussion in several pollution preparedness meetings organised b y the Coast Guard.

discharging cargo in order to facilitate repairing of ship will go a long way in augmenting the object with which the current OPRC Convention has come in to being. Even though regulations in countries like the U.K. makes it obligatory to maintain details and capacity of places of refuge inside its territorial waters and waters within its jurisdiction, Indian law lacks such provisions.

Therefore, lack of concern for Place of refuge act as a major hindrance to the scheme. Coastal states power to intervene in to maritime casualty is a powerful weapon as far as prevention of pollution from spreading it to coast is concerned. The same stands specifically addressed under the Intervention Convention also. Absence of specific plan to be exercised, depending on the type of hazard posed by the substances carried, the power may tend to be useless. This is another grey area in the present scheme. Specific issues pertaining to marine pollution contingency Scheme like the scope for multiplicity of rules and overlapping of jurisdiction under Indian legal system is a lacunae existing under Indian system.

10.6 Conclusion

The Marine pollution contingency Planning mechanism is no doubt capable of making great contribution for prevention of pollution from ships involved in carriage of hazardous substances. The scheme as laid down under the OPRC convention and given effect to in national legal systems, need modification to serve the purpose. It has proved to be effective and successful in dealing with oil spills. But in the case of other hazardous substances the

scheme has not evoked universal acceptance. This points to the need for more initiatives at the level of IMO to make states to ratify the OPRC-HNS Protocol. There need to be more exchange of information, training, and studies into the nature of hazardous substances and ways of dealing with them.

Another aspect to be given thrust is the need to make the scheme address all aspects of pollution preparedness and response. Considering the role of salvage measures, intervention powers and place or port of refuge in aiding prevention of pollution from maritime casualties it is highly necessary. Absence of clear cut provisions under the Indian merchant shipping law to address marine pollution Contingency planning is a serious defect to be rectified.

The scheme places much reliance on Coastal states in offering the framework and facilities for the Marine pollution Contingency scheme. Its role is pivotal in formulation of a national response system like national contingency Plan, designation of national authorities, identifying national operational focal points and showing response capacity to deal with pollution incidents. Despite several obligations current scheme lacks provision for enforcing duties. Moreover methods to enforce them are limited to mere reporting of information to the IMO.

Chapter -11

SAFETY MANAGEMENT SYSTEM

Ships involved in transboundary movement of hazardous substances, is required to fulfill several conditions regarding physical safety, design, equipment and manning conditions for ensuring safe carriage of hazardous substances and for avoiding and reducing pollution of the seas. But majority of these standards are purely technical in nature and did not address the problem of human errors or human element. Enquiries conducted in to several recent maritime casualties involving ships carrying oil and other hazardous substances have affirmed that existence of voluminous technical standards for safety of ships and pollution prevention alone is not sufficient to achieve the purpose.[1] But what is actually required to put these standards into effect is the competence, commitment, attitude, and motivation on the part of persons responsible for fulfillment of these requirements. Hence existence of a safety management system to monitor operational and functional management of ships to ensure proper compliance with existing standards for physical safety and prevention of pollution plays an important role in the prevention of pollution of the sea from ships carrying hazardous substances. Since 1989, the

[1] Antonio J. Rodriguez ,Mary Campbell Hubbard Fowler, Rodriguez, Kingsmill, Flint, Gray & Chalos, *The International Safety Management (ISM) Code: A New Level of Uniformity*, L.L.P., New Orleans, Louisiana,(1998), at p.4

IMO's policy since 1989 has also been focusing on measures to address ship safety by prescribing mandatory ship management schemes that ensure compliance with existing safety and pollution prevention norms.[2]

Ships involved in transboundary movement of hazardous substances have to comply with the Ship safety management scheme established by the International Ship Safety Management Code.[3] Under the scheme the ship owning company is placed at the centre of the International safety management scheme for prevention of pollution from ships.[4] Every company operating ships involved in carriage of hazardous substances is given the responsibility of

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[2] See Guidelines on Management for the Safe Operation of Ships and for Pollution Prevention, 1989.These Guidelines were introduced following the request of UK after the *Herald of Free Enterprise Incident.* Initially IMO's maritime Safety Committee passed a resolution No. A.596(15) entitled "Safety of Passenger Ro-RoFerries" proposing to develop guidelines regarding shipboard and shore-based management of Ro/Ro ferries. Refer also Alexandra Mandaraka-Sheppard, *Modern Maritime and risk management law*, Cavendish Publishing Ltd., London,(2007) ,p.299

[3] International Ship safety Management Code, 1989 herein after called as the *'ISM Code'*. For text see Guidelines on Management for the Safe Operation of Ships and for Pollution Prevention, 1989 adopted by the IMO available at *http://www.imo.org/ourwork/humanelement/safetymanagement/pages/ismcode.asp x. site visite*d 3/3/2010

[4] *Ibid*, Para.1.1.2 defines "company" as the owner or any other organization or person such as the manager or bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all duties and responsibility imposed by the International Safety Management Code.

planning for safe management of functional and operational aspects of its ships. The responsibility to develop, implement and maintain a Safety Management System[5] is the most important among them. This SMS should deal with all aspects related to functional and operational aspects of ships, in order to continue the transboundary movement of hazardous cargo without causing any risk of pollution to marine environment. The safety management system should include a plan for safety and prevention of pollution from ships in to the seas tailored to match the type of cargo carried in the ship, emergency preparedness, procedures for safety operations and reporting of accidents, internal audits and reviews of the plans. The company has to actually define the responsibility, authority and interrelation of all crew on board the ship who perform various functions relating to prevention of pollution. It should also designate a person called the "designated person" in charge of implementation of Safety Management System and to monitor its proper functioning. The company is also responsible for ensuring that adequate resources and shore based support are provided to enable the designated person who is in charge of safety. The company should also clearly define the role of master regarding prevention of pollution and safety of the ship. A "Safety Management Manual" incorporating the safety management plan for environmental protection and safety of ships involved in maritime carriage must form the part of documents carried on board of the ship.

[5] Hereinafter called "the SMS"

The ISM received good acceptance among the international community. The European Union implemented the ISM Code in December 1995, following the loss of *the Estonia* in 1994.[6] The U.K., immediately after the '*Herald of Free Enterprise'* disaster of 1987, initiated proposal for development of guidelines on safe management of ships at IMO. Specific merchant shipping regulations implementing ISM were made in the U.K. in1997 for ships carrying hazardous substances like oil tankers, chemical tankers, and gas carriers.[7] The Government of India has adopted Merchant Shipping Rules to give effect to ISM for ships registered in India and to Indian shipping companies operating ships involved in carriage of hazardous substances like oil ,chemicals, gas , and other hazardous substances in addition to passenger ships.[8]The position in the U.S. is also not different in this regard. Rules for safe operation of vessels and safety management systems

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6 See European Council Regulation (EC) No. 3051/95 dtd 8 December 1995. This implements safety management scheme for roll-on/roll-off passenger ferries in European Union wef., 1 July 1996.

7 See the Merchant Shipping (ISM Code) (Ro-Ro Passenger Ferries) Regulations, 1997 (S.I. 1997 No. 3022). These regulations implement European directive relating to ISM in UK legal system.

8 The Merchant Shipping (Management for Safe Operation of Ships) Rules, 2000 as amended in 2002 and 2003 implement safety management system in India. See also Indian Coast guard, "International Management Code for the safe operation of ships And for Pollution Prevention (ISM Code) in Safe Waters", News Letter on Maritime safety and Security, Vol. VI Issue 2, (sep 2006) p.11

have been incorporated in to the US code of Federal Regulations.[9]It is obligatory for all vessels carrying hazardous cargo calling at US ports as well as the U.S. vessels engaged in foreign trade to meet the ISM standards.

Even though the international ship safety management scheme has been found to have invoked good response internationally, a thorough study of the scheme and its implementation shows that several key aspects remains unattended. A major hurdle in the effective enforcement of the scheme is soft nature of the Code itself. This brings forth the question whether ISM Code could be used as criteria for determining seaworthiness of ships engaged in the trade of carriage of hazardous substances. Its non- mandatory nature for vessels carrying hazardous substances has reduced it to the status of a good practice. Another issue is the impact created by shadowing of the role of the master of the ship in prevention of marine pollution from ships under the ISM. The problems with the newly introduced concept of 'Designated person' and the limitations of the post for checking contamination caused during shipping casualties requires serious discussion. A review of the implementation of the international ship safety management scheme in India is necessary to examine whether the Indian practice is comparable with that of other maritime countries.

[9] See the Safe Management of Vessels 46, U.S.C, Chapter 32 and Rules for the Safe Operation of Vessels and Safety management Systems, Title 33 C.F.R Part 96

11.1 International Ship Safety Management System and Seaworthiness of Ships Carrying Hazardous substances

Since the adoption of international safety management system for ships by the IMO, and its incorporation in to the Indian merchant shipping law, the concept of seaworthiness of ships carrying hazardous substances has undergone significant changes. Ships are said to be seaworthy only if they fulfill the ISM requirements in addition to conditions for ensuring physical and maritime safety, manning and equipment standards. The scheme for safety management system is related to the concept of seaworthiness of Ships carrying Hazardous substances.

11.1.1 The Concept of Seaworthiness Underlying ISM

The background study of ISM Code shows that majority of maritime accidents are due to human errors.[10]Hence ISM was introduced in order to reduce the risk of human errors through a safety management system. And the preamble of the code states that it aims to provide an international standard for safe management of ships and thereby reduce risk of maritime accidents and marine pollution. A comparison of this objective of the ISM code with the concept of seaworthiness show that both have the same purpose viz., increasing the maritime safety of ships at sea, reducing damage or loss of cargo or property and loss of life at sea caused by accidents and the pursuant marine

[10] The ISM code, 1989, Rule I states the objectives with which code has come in to being.

pollution of the seas. The Code, in addition to maritime safety also emphasizes prevention of marine Pollution, which in a way could result from the lack of seaworthiness.[11] The duty of due diligence on the part of the carrier or the ship owner to provide a seaworthy ship also emphasizes the same objective with which ISM has been drawn. It requires the carrier to take all reasonable means and measures in the light of the available knowledge in order to provide a seaworthy vessel. The ISM Code, in fact, states those reasonable means, viz., creating safe practice on board the vessel and ensuring that the crew are prepared to face emergencies. This would mean that the crew should be competent, trained, and provided with all necessary information essential to carry out their duties. It also requires the ship owners to identify all the risks their vessels may encounter and see that their ships are prepared to face them. Furthermore the Code provides the means and methods that should be followed in order to comply with its requirements.

In a nutshell, the International Ship Safety Management Code aims at raising the shipping standards in order to create safer shipping environment and eventually to reduce maritime accidents. Furthermore, as the ISM Code sets the minimum standards required to eliminate human error, it can therefore be considered as a frame work to set high standards of seaworthiness[12]. In

[11] Lord Donaldson of Lymington, "The ISM Code: The road to discovery?" *Lloyd's Maritime and Commercial Law Quarterly*, (1998), 526. at p527

[12] In *The Eurasian Dream*, [2002] 1 Lloyd's Rep. 719, Captain Haakansson, an expert in the case, said that:". . .the ISM Code is a framework upon which good

other words, it can be said that a prudent ship owner would follow the ISM Code in order to provide a seaworthy vessel. Consequently, the ISM Code can be considered as a framework for a good practice to provide a seaworthy vessel.

11.1.2 ISM as a Condition of Seaworthiness

Initially when ISM was adopted by the IMO in 1993, it was not mandatory.[13] With passing of a resolution in 1994 adding ISM to the SOLAS Convention, management of ships safety became mandatory condition for ensuring seaworthiness of ships and for prevention of pollution from ships.[14] The adoption of domestic regulations in states in states like the U.K , the U.S.A, and India made the ISM a mandatory condition for ships carrying hazardous cargo. Even though international regulation of safety management in ships and drawing of domestic regulations to implement it is a concern of recent origin, the concern for safety management in ships as such is not of recent origin. Even prior to the adoption of ISM Code many procedures and practices constituting the functional aspects of present safety management

practices should be hung. Even for companies - or for that matter vessels -who have waited until the last minute to apply for certification the principles are so general and good that a prudent manager or master could very well organize their companies or vessels work following those (at present) guidelines - unless hindered to do so by other instructions that has yet not been withdrawn"

[13] See Resolution A 741(18) adopted by the IMO assembly in 1993.

[14] See The SOLAS Convention 1974, Chapter IX - Management for the Safe Operation of Ships and Pollution prevention as amended.

scheme were insisted on the part of ship owners to make the ships seaworthy under common law. The obligation to follow certain precautionary procedures and instructions during carriage of cargo like safety manuals, charts, plans and the inevitability of having a Ship Plan on board the ship to ensure the operational safety onboard ships had been insisted by judicial decisions since early times.[15] And in instances of lack of competence and familiarity with the vessel on the part of crew , such manuals help them as to safe course to be taken be it for ensuring safe carriage of cargo or for prevention of pollution.[16] Considering the widely accepted fact that the vast majority of shipping accidents are attributable to human errors, the ISM has placed great thrust in avoiding and reducing accidents caused by human element. The scheme has initiated several measures aimed at augmenting human seaworthiness of ships, not necessarily limited to technical soundness.

This issue was also seriously addressed by common law courts from early times. They had been showing a tendency to treat those measures as affecting seaworthiness of ships. Even though the ship is physically seaworthy,

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[15] In *Robin Hood Flour Mills, Ltd. v. N. M. Paterson & Sons, Ltd., (The Farrandoc),* [1967] 1 Lloyd's Rep. 232, The ship owner appointed a second engineer on the ship on the date of its sailing without making any enquiry as to his work experience. The vessel did not carry on board plans for the engine-room piping system and the ship owner also did not attempt to instruct the engineer regarding this. In the absence of any plan to guide, the engineer opened a wrong valve and allowed water to enter cargo holds.

[16] See also *The Makedonia***,** [1962] 1 Lloyd's Rep. 316.

it might not have sufficient or competent crew. Considering the fact that the vast majority of shipping accidents are attributable to human errors, the ISM has placed great thrust in avoiding and reducing accidents caused by human element. The scheme has initiated several measures aimed at augmenting seaworthiness of ships, not necessarily limited to technical soundness. The ship owner is under an obligation to employ crew who is not only technically sound but also competent and familiar with the vessel and its equipment and possess the ability to deal with emergencies that may arise during the course of voyage.[17] This is the reason why eminent jurist Roger White has opined that :

"Competence includes the ability to deal with an emergency situation: such a situation might only occur many years after qualification"[18]

The seaworthiness has not only been interpreted to mean presence of sufficient number of technically qualified seamen required to perform the voyage but also sufficient crew required to carry out emergency procedure.[19]

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[17] See *Manifest Shipping & Co. Ltd. v. Uni-Polaris Insurance Co. Ltd. and la Réunion Europeene, (The Star Sea),* [1997] 1 Lloyd's Rep. 360. *The Farrandoc,* [1967] 1 Lloyd's Rep. 232. *Papera Traders Co. Ltd. and Others v. Hyundai Merchant Marine Co. Ltd. and Another, The"Eurasian Dream".* [2002] 1 Lloyd's Rep. 719 etc.

[18] Roger White, "The Human Factor in Unseaworthiness Claims", 12 *LMCLQ,* (1996), at p. 25.

[19] See *Burnard & Alger, Ltd. v Player & Co.* (1928) 31 Ll. L. Rep. 281. In this case the vessel met with bad weather which led to the hatchway being uncovered and the cargo being damaged . The cargo owners claimed that the vessel was not seaworthy due to insufficient manning and to non-attention to the adequate tightening of the wedges which held the battens holding the tarpaulin in place over

Since competence of the crew had also been held to include the ability of the crew to handle vessel during emergencies, therefore if a new member of the crew is not familiar with the vessel this could affect his/her competence especially if there was no sufficient means, e.g. ship manuals and charts for them to familiarize themselves with the ship within reasonable time. This would mean that, even if the crew had long experience and training, their lack of specific information could mean that they are incompetent to navigate a particular ship.[20]

In situations where the crew is competent and has all the required skills but the carrier failed to communicate to them certain key information about the vessel the awareness of which is important to avoid endangering the ship, its crew and cargo , the vessel had been termed to be 'inherently unseaworthy'[21]. "There cannot be any difference in principle between disabling want of skill and disabling want of knowledge. Each equally renders the master unfit and unqualified to command, and therefore makes the ship he commands

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the hatches of the ship. The court found that the vessel was unseaworthy due to both causes and that the absence of one of the ship mates made a difference which led to such a result. p. 248

[20] *Standard Oil Company of New York v. Clan Line Steamers Limited*. [1924] A.C. 100. p. 120-121. *Robin Hood Flour Mills, Ltd. v. N. M. Paterson & Sons, Ltd., (The Farrandoc),* [1967] 1 Lloyd's Rep. 232. See *also Papera Traders Co. Ltd. and Others v. Hyundai Merchant Marine Co. Ltd. and Another, (The Eurasian Dream).* [2002] 1 Lloyd's Rep. 719. *Manifest Shipping Co. Ltd. v. Uni-Polaris Insurance Co. Ltd. and la Réunion Européene , (The Star Sea),* [2001] 1 Lloyd's Rep. 389

[21] *infra* n.23

unseaworthy".[22] The ship owner should also ensure that his ship is manned with adequate crew for the voyage and to carry out emergency procedures during maritime casualties. So proceeding on the voyage with insufficient and incompetent crew has been declared as amounting to unseaworthiness in *the Hongkong Fir*.[23] This duty would extend even to replacing the crew who left the voyage and whose presence is so important to the successful completion of the voyage.[24] Judicial decisions regarding adoption of ISM as a condition of seaworthiness related to marine pollution is limited. Therefore ISM related cargo carriage cases decided by the courts both prior to adoption of ISM and afterwards firmly establish that obligations related to safety management of ships form the basis of seaworthiness. Among them, the requirement of documentary seaworthiness and human seaworthiness, are two issues that received utmost attention. As seen from most of these decisions common law courts have been constantly upholding compliance with these standards considering them as fundamental to ensure seaworthiness of ships. One such

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22 *infra* n.23

23 *Standard Oil Company of New York; v. Clan Line Steamers, Ltd.*[1924] A.C. 100. p.120-121 the ship-owner did not communicate to the captain the information he received from the builders of the ship, regarding the amount of water that should be kept in the ballast tanks and the best way of loading the ship. The captain ordered the crew to empty two ballasting tanks, and that led to the ship capsizing and consequently it was lost. The House of Lords said that even a skilful and experienced captain would not have known this fact about the vessel without instruction.

24 *ibid*

case where the concern for safe management of ships as an inevitable condition to ensure seaworthiness of ship has been made clear is *The Eurasian Dream*. The impact created by the transboundary movement of hazardous substances to the marine environment also warrants such a stand.

Issues related to safety management of ships have been treated as forming a condition for seaworthiness for ships carrying hazardous cargo in the European Community and countries like the UK.[25] The ISM concept had been applied by courts in the UK as a condition for seaworthiness even before regulation of human factors under IMO took its roots. For instance in *The Toledo*[26], the failure to set up a proper system for inspection of vessels had been regarded as amounting to want of due diligence in making the ship seaworthy and failure to properly manage the ship. The failure by the crew to report was attributed to the absence of a system in place requiring the reporting of defects, was the issue in *The Lydia Flag*[27] The merchant shipping regulations in the U.K. also makes provisions for suspension or cancellation of documents of compliance and safety management certificates for non

[25] After the loss of *the Estonia* in 1994 the Council of the European Union adopted Council Regulation (EC) No. 3051/95 of 8 December 1995 on the safety management of roll-on/roll-off passenger ferries implementing ISM wef., 1 July 1996. The U.K. adopted the Merchant Shipping (ISM Code) (Ro-Ro Passenger Ferries) Regulations 1997 (S.I. 1997 No. 3022) to provide for the enforcement of this Council Regulation.

[26] [1995] 1 Lloyd's L aw Reports, 40, p. 5

[27] [1998] 2 Lloyd's L aw Reports, p. 652.

compliance with the Code. The Secretary of State is authorized by the Merchant Shipping regulations in the UK to do so after giving notice in writing and reasonable opportunity of being heard where he has reason to believe that the certificate was issued on false or erroneous information. The certificate can also be cancelled if the management structure of either the company or ship was changed substantively since the audit or where any audit of a company or ship has revealed a failure to comply with the regulation.[28] There is also liability for the contravention of the ISM requirements regulations by the company, master of the ship or the designated person prescribed under the regulations. They can be held viz., criminally liable for fine and imprisonment. The regulations also provides for defense, that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offence. This makes the UK regulations a comprehensive one. If ships do not comply with the Code, they will be detained. After their detention, the ISM code non compliant ships are prevented from proceeding to other European ports until the company that operates such ship could demonstrate that complies with the ISM Code and proper certification.

Ship safety management system has been regulated and enforced as a condition for ships entering Indian waters through the merchant shipping laws

[28] The Merchant Shipping (International Safety Management) (ISM Code) Regulations, 1994(S.I. 1998 No. 1561) as amended by The Merchant Shipping (International Safety Management) (ISM Code)(Amendment)Regulations, 1999 (SI 2001/3209)

implementing them in India at the time of entry of vessels in to Indian ports.[29] Indian Coast guard authorities conduct necessary inspection and verification of certificate of compliance prior to affording entry to ships. Shipping Companies operating vessels are required to develop, implement and maintain a safety management system approved by the Government of India through the Director General of Shipping. The Rules requires the system to achieve safety at sea, and also prevention of pollution of marine environment by promoting safe practices, establishing safeguards against identified risks and improving safety management skills of crew including emergency preparedness.[30] The Director General of Shipping, Mumbai is authorized to issue a document of compliance to a Company after an initial verification of compliance of ISM Code and requirements as to safety Management System (SMS) by the Auditor which will be valid for five years subject to annual verification by the Auditors. 'Safety Management System' Requirements under the Rules requires every shipping Company operating vessels to develop, implement and maintain a Safety Management System approved by the Government of India through the Director General of Shipping, and shall include safety and environment

[29] The 2000 Rules were amended twice to accommodate changes brought to ISM Code at international level by the IMO. Accordingly Merchant Shipping (Management for Safe Operation of Ships) Amendment Rules ,2002 and Merchant Shipping (Management for Safe Operation of Ships) Amendment Rules, 2003 amended the 2000 Rules.

[30] See Merchant Shipping (Management for the Safe Operation of Ships) Rules 2004, Rule 4 and 5.

protection policy. The Rules requires the system to achieve safety at sea, and also prevention of pollution of marine environment by promoting safe practices, establishing safeguards against identified risks and improving safety management skills of crew including emergency preparedness. The Director General of Shipping, Mumbai is authorized to issue a document of compliance to a Company after an initial verification of compliance of ISM Code and requirements as to safety Management System (SMS) by the Auditor which will be valid for five years subject to annual verification by the Auditors.[31]

The lack of effective and systematic implementation of ISM standards is treated as a major non- conformity affecting the seaworthiness of ships under US law.[32] The identification of such a major non-conformity, during Port state inspection, enable the Captain of the Port to detain the ship until the defects are cured.[33] A vessel can be considered to be ISM compliant only if all the major non-conformities are cleared prior to departure. Such vessels will also be targeted as priority I ships boarding at US ports if a major non-conformity remains outstanding after the vessel is released from detention. The US Supreme Court had also emphasized the importance of ISM as a condition for seaworthiness in cases related

[31] Ibid see Rule 5

[32] See "Safe Operation of Vessels and Safety", 33 CFR § 96.100 Part 96.

33.See Guidance on PSC of ISM Code enforcement Navigation and vessel inspection Circular No.4-98 and PSC control guidelines for enforcement of Management for Safe Operation of Ships (ISM code) issued by the US Coast Guard Navigation and Vessel Inspection Circular No.04-05*http://www.uscg.mil/hq/cg5/nvic/pdf/2005/NVIC%2004-05.pdf.*

to cruise ship in few cases.[34] Substantial differences exist in the enforcement of condition for seaworthiness underlying the ISM code by the coast guard in the U.S. The flag state enforcement adopts similar criteria and certification process that is followed in other major flag state jurisdictions like verification and issue of certificate of compliance and its maintenance. But Port state control for enforcement of ISM Code in US follows a different procedure for effective exercise of control. US Coast Guard's Pre- arrival Screening of ISM compliance is one step in this regard. Foreign vessels in advance to their arrival are required to give a notice of arrival containing details of DOC/SMS and name of Flag state administration to enable the Coast Guard to verify its validity. The Coast Guard can deny entry, if validity of certificates are not confirmed. The identification of a major non-conformity with ISM Code during Port state inspection is considered a sufficient ground for initiating enforcement actions like detention of the ship, issue COTP orders imposing restrictions on the movement of the ship for safety or security reasons or notifying the classification society or recognized institution regarding deficiency of ISM requirements. Power to expel ships from ports for non compliance with ISM exists under the Ports and Water Ways Safety Act, 1972.[35] Non compliance with ISM also attracts civil remedy under US law.[36]

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[34] *Rinker v. Carnival Corp.,*753 F.Supp.2d 1237, 1243 (S.D.Fla.2010), *Lapidus v. NCL America LL.C. Slip Copy*, 2012 WL 2193055 S.D.Fla.2012 etc.

35 See 33 US Code $$ 1221-1236 and also Safety Management System Manual Guide book.

36 25.See 33 CFR 96.380(c) and 46 US Code 3205(d)

Therefore, the International Ship Safety Management Code as it stands now is an effort by the IMO to raise the standard of seaworthiness of ships carrying hazardous substances and aims to create safer shipping environment and eventually to reduce maritime accidents and improve maritime safety. The main drawback of ISM at its inception is its soft nature. Its compliance was not mandatory. This defect was sought to be cured by the IMO by amending the SOLAS convention and adding Chapter 9 to deal with management for safe operation of ships. The ISM code as part of SOLAS Convention has entered in to force for member states as a condition of seaworthiness for ships flying its flag. The state practice of the U.K, the U.S.A. and India have been to treat it so. But the legal frame work evolved internationally is not free from defects. The scheme lacks forcefulness to ensure its compliance. There exists no penalty under the ISM Code to oblige member states to obey them. Therefore, the status of ISM is merely is that of a good practice.

11.2 Role of "Designated Person"[37] for Prevention of Pollution under the Safety Management System

The designated Person occupies a pivotal position under the safety management system for prevention of pollution from ships carrying hazardous substances. The primary function assigned to the newly introduced DP to achieve the object of controlling pollution is to provide a link between the company and those on board the ship during ship's operations, especially while

[37] Hereinafter referred to as the "DP"

encountering maritime casualties.[38] The role of designated person as envisaged under the scheme appears to be to resolve many issues faced during maritime casualties. Due to lack of communication between those on board and ashore, speedy decisions are to be taken to prevent spread of pollution can be taken by him.[39] Hence the requirement tend to get good results during casualties for preventing pollution from ships carrying hazardous substances because the DP act as a conduit pipe between the Company and the people on board the ship and facilitate communication between them . It helps in expediting the modus operandi to be adopted to prevent the spread of pollution, containment of cargo and clean up operations following a pollution incident. The responsibility and authority of the designated person or persons in monitoring compliance with the safety and pollution-prevention norms also add to the role of designated person.

It is the duty of the Designated Person to conduct audits to show that the vessel comply with the ISM requirements. He should also recommend training for crew if the audit reveals any deficiency in the kind of training

[38] The ISM Code, Art.4. states "To ensure the safe operation of each ship and to provide a link between the Company and those on board, every Company, as appropriate, should designate a person or persons ashore having direct access to the highest level of management. The responsibility and authority of the designated person or persons should include monitoring the safety and pollution- prevention aspects of the operation of each ship and ensuring that adequate resources and shore-based support are applied".

[39] *Ibid.*

received by the crew in regard to fulfilment of ISM standards as to emergency preparedness, maritime safety and prevention of marine pollution.[40] Besides ensuring preparedness of the crew, he also remains responsible for keeping the vessel properly maintained and free of repairs. If the D.P. comes to know any defects existing in the vessels machinery and equipment, either during audit or through masters report he has to initiate repairs or seek the advice of the management to rectify it. The overall effectiveness of ISM code depends to a great extent on the documents that the vessel should have on board to show vessels compliance with it like the Document of Compliance, S.M.S, Safety and environmental protection policy and Emergency plans.[41] Hence the D.P. is seen as the person responsible to ensure all these documents on board the vessel regularly updated.

The I.M.O. also considers the role of D.P. as highly important for ensuring safe operations and for prevention of pollution from ships.[42] But the ISM code does not clearly state who a designated person should be or what qualifications he or she should have? In this regard the Code stops by saying

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[40] *See Papera Traders Co. Ltd. and Others v. Hyundai Merchant Marine Co. Ltd. and Another, (The Eurasian Dream).* [2002] 1 Lloyd's Rep. 719. *The Star Sea*, [2001] 1 Lloyd's Rep. 389.

[41] See *The Torepo,* [2002] 2 Lloyd's Rep. 535, *The Marion* [1983] 2 Lloyd's Rep. 156. *Demand Shipping Co. Ltd. v. Ministry of Food Government of the People's Republic of Bangladesh and Another, (The Lendoudis Evangelos II),* [2001] 2 Lloyd's Rep. 304. etc.

[42] ISM Code, Art.4.

that a designated person must have direct access to the highest level of management in the company. But efficient working of the safety system demands that DP must be well known, trusted and respected by those on board the ship and in the company. At the same time, How will the D.P. be able to discharge his function of monitoring compliance with the international norms without having knowledge and experience in working with such ships? The major defect is that there is no guidance in the existing law regarding the qualification he should have to make him competent to discharge his duties related to overseeing ship's operations and ensuring compliance with pollution prevention norms .

This vague approach in defining the role of DP has been followed in Merchant Shipping Rules, 2000 in India also.[43] But considering the strategic role of designated person under the ISM scheme, the Director General of Shipping in India has sought to clarify the role of designated person as specified in Article 4 of the Code. In a Circular issued for the guidance of shipping companies, the DG Shipping asserts that the choice of the designated person and his competency are fundamental for the success of the implementation of the Code .Therefore, the company should select a person having shipboard experience as chief engineer officer or master who can gain the respect of the personnel at sea. He should also have a good knowledge of how the company works and should be aware of his responsibility to

satisfactorily deal with reporting of casualty, near misses, non-conformities, and hazardous occurrences.[44]

It may also be noted that any fault of the designated person in the implementation and maintenance of the SMS, could have legal consequences and the owner may lose his right to limit his liability. In practice in states like the U.K., this issue has received more attention. In merchant shipping regulations implementing ISM in states like the U.K., the motivation behind the introduction of designated person, is more clear . Merchant Shipping Rules, 1998 relating to ISM in the U.K. insists that Designated Person should have appropriate knowledge and sufficient experience in the operations of ships at sea to fulfill to fulfill the purpose of the ISM code.[45] European

593.See the Merchant Shipping (Management For Safe Operation of Ships) Rules, 2000.See r.2(J)

http://india.gov.in/allimpfrms/allrules/983.pdf accessed on 3rd March,2009

[44] Guidance notes to the Shipping Companies on the role of the Designated Person, importance of Training and concept of SMS Apex manual with respect to ISM Code Engineering Circular No. 43,Dated Dec 23,2004,.

See *http://www.dgshipping.com/dgship/final/notices/engcir43.htm , accessed on 3rd March 2009*

[45] See the Merchant Shipping (International safety management) (ISM) Regulations (UK),1998, SI 1998 No. 15615. s. 8(1) The company shall designate a person who shall be responsible for monitoring the safe and efficient operation of each ship with particular regard to the safety and pollution prevention aspects.

(2) In particular, the designated person shall-

community also adopts same stand.[46]The regulations adopting the ISM code in to European Community also insist on background knowledge and experience to oversee the safety management system. Designated person should also have suitable qualifications and experience in the safety and pollution aspects in addition to access to the highest level of management ashore and aboard. But the regulations in the U.S. also place great reliance on experience and qualification of people to be appointed as the Designated Person.[47] The Designated person is required to have appropriate qualification to achieve the purpose of the ISM code viz., safety of ships and prevention of marine pollution.

It can be concluded that the concept of designated person occupies a key position in a safety management system for ships to provide it with the

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(a) take such steps as are necessary to ensure compliance with the company safety management system on the basis of which the Document of Compliance was issued; and

(b) ensure that proper provision is made for each ship to be so manned, equipped and maintained that it is fit to operate in accordance with the safety management system and with statutory requirements.

(3) The company shall ensure that the designated person-

(a) is provided with sufficient authority and resources; and

(b) has appropriate knowledge and sufficient experience of the operation of ships at sea and in port,to enable him to comply with paragraphs (1) and (2) above

[46] See Council Regulation (EC) No. 3051/95 of8 December 1995

[47] See Title 33 and 46 0f US Code and U.S.Coast Guard, Safety Management System Manual Guide Book

required support and structure. Hence a clear explanation of his responsibilities, experience as well as qualification of DPA having due regard to the regulatory requirements and prohibitions, is inevitable for prevention of pollution from ships carrying hazardous substances. Therefore it is submitted that the ISM code need to be amended to clarify this.

11.3 Role of master of Ship under the ISM Code

Christopher Hill explains the role of ship's masters taking account of all aspects of master's duties.[48] The position of Master under ISM Code is a key element in the safety management of ships and adds more to the general responsibility of masters. Maritime safety and prevention of marine pollution are the main tasks of the master as far as the ISM code is concerned. It is his overall responsibility to implement safety and pollution prevention policy of the shipping company in accordance with the internationally accepted conventions, codes and national legislations of states through which the transboundary movement of cargo occurs.[49] In achieving this objective master has to motivate the crew by issuing instructions and appropriate orders to put these policies in to effect apart from constantly reviewing them. All emergency procedures are to be defined and maintained through training and exercise with a view to minimize the consequences of pollution casualties to marine environment. He also has the responsibility to inform the ship owner of any

[48] See Christopher. Hill, *Maritime Law,* LLP Publications, London, (1995), at p.245

[49] See Article 5 of I.S.M code.

defects existing in the ship, its equipments that can pose a risk of pollution and get it rectified.

He also remains in command of the vessel. He has over riding authority and responsibility to decide issues involving prevention of pollution and safety management on board ships. This overriding authority vested with master has won him the status of "…..a legal representative of the company and a front line manager".[50]The master's authority for taking measures for prevention of pollution from ships at sea is very crucial for prevention of pollution from ships involved in transboundary movement of hazardous substances due to his presence on board and in control of the ship . However, the I.S.M. Code has given due respect to this position of the master under the code. But the Code has left the task of defining masters responsibility and authority for implementation of safety and environmental protection to the company . The code merely requires the company to clearly establish that master has overriding authority and responsibility to take decisions with respect to safety and pollution prevention and does not provide any guidelines in this regard. According to the requirements of the Code, the master remains in command, and his position or duties are not, in any way, overridden. This situation is to a great extent understandable, given the fact that the master needs to keep certain degree of freedom to deal with any unexpected situation that might require rapid action. This does not mean that, due to his position to command of the

[50] Anderson P., *I.S.M Code a Practical guide to the legal and Insurance Implications,* Lloyd's Practical Shipping Guides, London,(1998), at p.108

ship, the master can do whatever he decides. He can be compelled to explain and give justifiable reason for any action falling outside the procedures established in the SMS manuals.

In actual practice this requirement has not found required response in domestic regulations. With management having been given new responsibilities for safety management and the Designated Person being put in charge of overseeing the SMS, it appears that the master's authority has been undermined, even though explicitly the ISM Code tries to safeguard master's authority. There is a need for reinforcement of master's authority by specifying his areas of control.

11.4 Conclusion

The need for formulation and implementation of a safe system of management and operation of ships that takes care of existing norms for prevention of pollution and increasing maritime safety assumes importance for ships engaged in carriage of hazardous cargo.

The traditional concept of seaworthiness which was primarily concerned with physical conditions of ships have undergone significant changes since the international ship safety management scheme has been adopted. The need for formulation and implementation of a safe system of management and operation of ships that takes care of existing norms for prevention of pollution has been recognized as forming part of the duty to exercise due diligence underlying the concept of seaworthiness. The time is ripe to say that a ship

which is not safely managed or operated in accordance with the terms of the safety management scheme is not fit to encounter the perils of the sea and is unseaworthy. It is suggested that the ISM Code may be usefully employed to serve as an essential criterion for the determination of the seaworthiness of a ship. But the current ISM scheme lacks force to ensure its compliance. There exists no provision under the ISM Code to oblige member states to obey them. Therefore, the status of ISM is merely is that of a good practice and its enforcement as a condition of seaworthiness has remained difficult.

Another problem underlying the I.S.M Scheme is the prescription of norms for the designated person. The role of Designated Person in the working of the scheme is far reaching and extend to all aspects of safety. It serves as a link between the shipping company and those on board, in conducting audit and ensuring compliance with the Scheme. But the ISM Code does not provide any guidelines for the qualifications of a designated person to discharge the functions assigned to him under the scheme. Similarly there is also need for reinforcement of master's authority by specifying his areas of control.

Chapter -12

CONCLUSION AND SUGGESTIONS

This study pertain to legal control of pollution from transboundary movement of hazardous substances through sea. It is an emerging area in international maritime law. The development of law in this area appears to be haphazard. There is need for evolution of a comprehensive scheme. Achieving such a system in a single leap, though appears to be illusory, has not been attempted at international level and also under domestic legal systems like India. Within European Community and states like England where such sincere attempts have been made, the regulatory scheme has recorded significant improvements. This study has tried to examine the legal intricacies in this area and make a critical evaluation of them. It is believed that the study will help to evolve a better regime for containing pollution from ships carrying hazardous substances. In the light of the discussions in the previous chapters following are the conclusions and suggestions arrived.

Codification of Hazardous Substances Regulations

The legal control of transboundary movement of hazardous substances through sea is characterised by lack of a comprehensive and unified law. The development of law in this field has been driven by socio- economic and political conditions underlying international trade involving hazardous substances. The inherently heterogeneous character of hazardous substances

added to the evolution of different strategies and methods underlying these norms. In addition to this, laws were evolved with other interests in focus such as safety of life at sea, maritime safety and prevention of marine pollution. This has resulted in multitude of regulations developed through international, regional and national initiatives. Therefore the regulatory scheme is characterised by lack of coherency and consistency. The existence of multiple standards makes it difficult for promoting sustainable conduct of transboundary movement of hazardous substances through sea without posing risk to marine environment. At the same time it is difficult to bring a sea change by reformulation of legal strategy which has taken centuries to bring it in present form. Clarity and awareness about rules can not be compromised as far as control of pollution is concerned. So an instrumental change can be brought in this area if the regulations governing transboundary movement of hazardous substances is collected together and presented in a codified manner. In this regard the Hazardous Materials Regulations (HAZMAT)[1] that codifies the regulations for hazardous materials in the U.S. system can be used as a guide. Such a code is inevitable both in international and Indian scenario.

Coastal State Jurisdiction and UNCLOS, III

Deficiencies implicit in the jurisdictional frame work under the international law of the sea regime for prevention of pollution from ships is a major reason for improper implementation of international pollution standards

1 See the Federal Hazardous Materials Transportation Law 49 U.S.C § 5101.

by coastal states. The scope for exercise of concurrent jurisdiction over foreign vessels by both the flag state and coastal sate while inside internal waters, and territorial sea is a trauma of the UNCLOS regime for prevention of pollution. In the absence of guidance provided under the UNCLOS framework the practice of states is streamlined according to the "*Effect Doctrine.*" But the restrictions of this doctrine prevent coastal states from invoking jurisdiction in pollution discharge cases occurring inside its internal waters. The doctrine also has not been uniformly applied among states. Judicial acceptance of this doctrine in Indian context has received a set back in *Capt. Subash Kumar v. Mercantile Marine Department, Madras*.[2]

The study also throws light in to practice of imposing higher standards of entry for ships carrying hazardous substances. In the absence of right of access to ports under customary international law, the exclusive territorial sovereignty enjoyed by the coastal states inside its internal waters and ports prove detrimental to international trade involving hazardous substances.

Place of Refuge is another aspect where the UNCLOS frame work has to undergo a change. The concept of 'place of refuge' plays a pivotal role in prevention of marine pollution from casualties. But its importance for prevention of marine pollution has not gained attention under international law. The UNCLOS, 1982[3] and the Salvage Convention, 1989[4] which refer to place

2 1991 SCR (1) 742

3 The UNCLOS Convention,1958,Art.18(2)

of refuge also does not create any positive obligation in this regard. The case law pertaining to 'place of refuge' also restricts its availability for humanitarian reasons rather than economic reasons like saving of cargo.[5] The practice followed in the recent years also supports the view that a distinction has been emerging between the humanitarian right to save life and save the ship or cargo. 'Place of refuge' has been denied to several ships facing the threat of marine pollution due to the hazardous nature of cargo carried during the time of distress as in the case of M,*V.Toledo, The Attican City*, and *The Long Lin.* But European Community has adopted robust policy in this regard. It imposes responsibility on its member states to plan for facilitating 'place of refuge' to ships in distress carrying hazardous substances. Accordingly the U.K has identified places of refuge along its coastline. The regulations in England authorise the SOSREP with authority to direct ships in distress to places of refuge. They have also evolved criteria for granting refuge. The model adopted by the U.K. and European Community in this regard can be a model for development of international norms and regulations in states like India. The IMO should initiate measures in this regard to motivate member states and create legal obligation to grant place of refuge for cargo ships in distress.

There are also problems with the jurisdiction of coastal states. The concept of Contiguous Zone under the customary international law does not

4 The Salvage Convention,1989, Art.11

5 See *the Eleanor,* (1809)195 ER 1058-1068

recognise the importance of coastal states jurisdiction for protection and preservation of marine environment. This aspect has also gained importance in the study. It is suggested that in this area the territorial sea jurisdiction may be extended to empower the coastal states with adequate jurisdiction to enforce its pollution norms. Laudable attempt has been made by the UNCLOS in the EEZ by conferring coastal sates with jurisdiction to adopt special mandatory measures.[6] But these powers are brooded in uncertainty. The prescriptive and enforcement jurisdiction in these areas[7]requires more clarification under the UNCLOS. The imbalance created by the flag state pre emption of action initiated by coastal and port states against vessels violating pollution prevention norms is another issue that besets the balance underlying the jurisdictional provisions in the maritime zones of states. The exclusive flag state jurisdiction in the high seas remains vulnerable due to the prevalence of flags of convenience. This also requires to be addressed. In the light of these shortcomings, the jurisdictional framework under UNCLOS, III needs to be renegotiated. The peculiar problems faced by India due to lack of comprehensive admiralty regulations also require a speedy remedy.

6 See the UNCLOS,Art.234

7 The Admiralty Bill,2005 has Lapsed. See also Law Commission Report, (India) No.151 in this regard. It is available at Http://Law commissionofindia.nic.in/101-169/Report151.pdf

Clarification for Intervention Powers of Coastal State

An important aspect of coastal state jurisdiction is the overriding jurisdiction to control marine pollution from casualties involving ships. But the law on coastal states power to intervene in maritime casualties is restricted in its scope and application. The lack of clarity in the law governing this aspect can be seen as a serious defect. The general provision under the UNCLOS, 1982 which guarantee the power of intervention is vague and couched in general terms.[8] The Intervention Convention is limited in its application to pollution casualties occurring on the high sea.[9] The Convention that determines the scope and ambit of intervention powers of coastal states also lacks clarity. The scope of directing power of coastal states that forms the crucial aspect of intervention powers also do not find a place in the convention. In contrast to this, the powers to give directions are clearly addressed under the U.K [10]and the U.S[11] legislations implementing the Convention. Similarly need for place of refuge during intervention in to casualties also is included these state laws. This point to the need that the IMO should initiate measures to clarify the intervention powers of coastal state. The provisions in the Indian Merchant Shipping Act, 1958 in this regard is insufficient and is vague. It is suggested

8 See UNCLOS,1982, Art.221.

9 See Intervention Convention, Art.1

10 See the Marine Safety Act,2003,s.3, the Merchant Shipping Act,1995,s.137-141 and the Merchant shipping and Maritime Security Act, 1997

11 Intervention on High Seas Act, 33 U.S.C.§§1471-1487.

that specific Rules are required under the Merchant Shipping Act to give effect to the Convention in India.

Conditions of Seaworthiness of Cargo ships and Need for Uniformity

The role that Seaworthiness and cargo worthiness of ships play in promotion of safe carriage of cargo without pollution of the marine environment has been the accepted principle since time immemorial. Since shipping is international in character it is imperative that these standards of physical safety of ships and competency of crew need to be uniform throughout the world. But the practice of environmentally ambitious states does not seem to acknowledge this universality principle. Regulation of Construction, Design, and Equipment standards for ships carrying hazardous substances necessitates uniform standards due to practical necessity implicit in marine adventure. The UNCLOS regime has also accepted this in principle and imposed necessary limitations on states insisting on the need for adoption of uniform and internationally accepted standards for its ships carrying hazardous substances. But practice of states like the U.S. in this regard is against the international policy. The Oil Pollution Act, 1990 is a concrete example of the U.S. policy showing this trend. Several problems were created by the over riding authority given to states under its environmental statutes to prescribe higher standards of physical safety for ships . Such a practice on the part of states was condemned by the U.S Supreme Court in decisions like *Ray v. Atlantic Richfield Co*[12] *and*

12 435.U.S. 151(1978)

U.S.v.Locke[13]. But these decisions does not guarantee that this practice has come to an end. Coastal states, even though they are bound by MARPOL and SOLAS standards, are adopting unilateral approach and deviating from its basic norms. This also points to a defect with enforcement authority of IMO, which lack proper sanctions to compel obedience on the part of its member states. The complex nature of regulations affecting these standards contained in a number of international conventions, codes and national regulations implementing them also pose a risk to adoption of uniform standards.

Limitations of Civil Liability Scheme for Accidental Pollution Damage

International Liability and Compensation scheme for pollution damage evolved as an innovative tool to overcome technical difficulties and limitations with application of tort remedies to maritime accidents. But the scheme could not prove successful due to its narrow scope. A major challenge of the scheme is its inefficiency to address all sorts of pollution damage[14]. Unlike damage to persons and property, damage to marine environment is overlooked in civil liability regime. The scope of marine pollution damage is very narrow and do not answer all aspects of pollution damage. The meaning and scope of pollution damage and its recovery in international law and national legislations limit the environmental damage to

13 529U.S.89(2000)

14 See The Civil Liability Convention, Art 1(6). This definition form the base for defining pollution damage under regulations for other hazardous substances like Hazardous Waste, nuclear substances, and other HNS

economic damage ie., lost profits and earnings. It is devoid of any concern for pure environmental damage or environmental damage *per se*. Hence the definition of pollution damage requires to be amended to strike a balance between remediation and restoration of environment. Regulations implementing this scheme in the U.K. and India also suffer from same defects. But the scope of pollution damage under the U.S. Oil Pollution Act, 1990 offers a clear and wider scope to facilitate recovery of all sorts of damage to marine environment. The concept of pollution damage under the U.S. law is capable of restoring the environment to pre accident state. Unlike international scheme, statutes in the U.S[15] and judicial decisions like *SS Zoe Colоctroni*[16] *and Ohio Case*[17] attempts to put an economic value on the non-economic value of the environment. By doing so the U.S law create a strong duty to protect and preserve the marine environment and envisage a scheme of liability for reinstatement of the environment through compensation. It thereby facilitates full recovery for pollution damage caused during transboundary movement of hazardous substances through sea.

The concept of pollution damage under the U.S. scheme also introduce a novel concept of natural resources and defines it under the CERCLA,1980 and Marine sanctuaries Act, 2000. The definition of natural resources by

15 Oil Pollution Act,1990, the Comprehensive Environmental Response, Compensation and Liability (CERCLA),Act, 1980 , and the National Marine Sanctuaries Act, 2000

16 *CommonWealth of Peurto Rico v. The SS Zoe Colоctroni*, 628 F.2d 652

17 *Ohio v. The United States Department of the Interior*, 880.F.2d.432

clarifying the concept has expanded the scope for pollution damage under U.S law. Further the scope of states action as *parens patriae* is also one of its merits. Decisions like the *Alegrate Shipping Co. Inc . and Anr* [18] *v. IOPC Fund (the SEA EMPRESS)* and *Land Catch Ltd. v. IOPC Fund* [19]have also pinpointed the absence of a direct link between pollution incident under the international scheme and has exposed its vulnerable state. Considering all these aspects it is suggested that the concept has to be revamped by adopting a proper definition of pollution damage.

At the same time liability and compensation laws in the U.S. tends to be in disharmony with its international counterpart. Indian law on civil liability is incomplete and backed by heterogeneous laws not developed in shipping context. The Merchant shipping Act, 1958 is confined to International civil liability and compensation for pollution damage from oil and hazardous and noxious liquids. It also allows states to freely legislate their own pollution regulations with wider terms of liability and may also impose unlimited liability. Further an emerging concern in this area is the emerging trend in European Community that shows a tendency to migrate from the concept of civil liability to criminal liability for pollution damage. Even previously certain American state's regulations imposed criminal liability. But European

18 [2003] 2 Lloyd's Rep.327

19 [1998] 2 Lloy'ds Rep.552

Community's stand raises a question whether there is a need for IMO to make a relook in this regard.

The most uncertain part of the compensation scheme is the limitation of liability by imposing financial limits. It lacks a scheme to provide for recovery of full compensation. There is need to refine the limitation of liability norms in such a way as to make it cover any extensive environmental damage through an open ended fund. The limitations of the scheme in articulating the scope of pollution damage leaves the existing scheme insufficient for recovery of environmental damage. The practice followed under the U.S regulation seems to be a better adaptable strategy to provide for full recovery of environmental damage. The natural resources restoration and ecological rehabilitation concept followed in American scheme can be accommodated in to international scheme. Such an attempt can cure the current scheme of its defects.

Problems in Contingency Planning and Response Mechanism

Contingency planning and response mechanism is another legal device to mitigate the pollution hazard caused by maritime casualties. Lack of sound legal backing for the obligation to remain prepared to face pollution incidents and initiating response measures is a major drawback. The OPRC Convention adopted in 1990, offered to present a comprehensive scheme in this regard. But the existence of pollution emergency preparedness under MARPOL Convention , UNCLOS etc., has led to overlapping of laws. Another major defect is inability to cover all hazardous substances, because OPRC

Convention and its protocol has not received good acceptance among world community. Its protocol extending obligation for contingency preparedness for other hazardous substances has not entered in to force. States like the U.S., the U.K. and India are not parties to the protocol. A major positive aspect that requires to be noted under the U.K system is existence of SOSREP[20] to take expedient operational decisions to put the scheme in to operation during casualties. Actually it was an addition made under the U.K. following *Sea Empress* oil spill, which demonstrated the need for such an authority. SOSREP's role in managing emergency operations in the UK waters has been a success. Hence it can be proposed that provision may be made for a legal obligation to appoint such a person in Indian law.

The importance of planning fro salvage measures and place of refuge to deal with casualties are two aspect ignored by both international and Indian scheme. But the systems in the U.K. attaches much importance to these aspects and has included legal obligations in this regard. In order to improve the working of OPRC scheme the planning for salvage is to be included as a requirement for contingency plans. The Coastal states duty to arrange for and remain prepared with a list of places of refuge and repair facilities for ships and unloading of cargo must also be included.

The coastal states powers of intervention also assume importance in this context. Intervention jurisdiction is powerful weapon to be used in

20 Secretary of State Representative

conjunction with contingency mechanism to prevent marine pollution from spreading. But with out proper planning as to how it is to be exercised, by whom it is to be put in to effect, it is difficult, this power remains useless. It is time for India to sharpen the merchant shipping regulations by adopting rules in this regard. As suggested the Government of Indian should adopt Merchant Shipping (Intervention Powers), Rules under the Merchant Shipping Act, 1958 to serve this purpose.

Managing Ship Safety Through ISM and Scope for Improvement

Human Factors and its contribution towards causing accidents have been proved beyond doubt with the latest *Exxon Valdez* and *Herald of Free Enterprise* incidents. Enough attempts have been made by international community through STCW convention, SOLAS Convention and several ILO measures. The law in this regard has not addressed the real cause of accidents due to lack of plans to manage the operational and functional safety of ships until the ISM Code was adopted. The Code if properly implemented can prove to be an effective tool to prevent pollution from ships carrying hazardous substances.

States like the U.S and the U.K have been vigilant in sharpening its implementation through proper enforcement of ISM standards. But international regulations do not contain any force to ensure its compliance by the member states. In the absence of penalty provisions under the international scheme, it retains the status of a good practice. Another major defect with the

ISM is the lack of importance attached to the role of master of the ship under the Code. The master is the person who accompanies the ship during the voyage and is in full control of the ship during its voyage. The concept of designated person introduced under the ISM is a welcome step. The requirement of designated person augments the options for communication with ship owner and facilitates speedy dispensation of information and initiation of apt measures to contain pollution. But it would have been better if this object is achieved without ignoring the role of Master. There is also need to stipulate for the qualifications of the designated person, who occupy a crucial position in the success of ISM scheme.

The study has dealt with many of the problems encountered by the international and national legal framework in this area. I hope that this work has focused its attention on many grey areas of law. The suggestions given in the study, if properly carried out will be helpful in evolving a better legal regime for control of pollution from transboundary movement of hazardous substances through sea.

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LEGAL REGULATION OF CARRIAGE OF HAZARDOUS SUBSTANCES THROUGH SEA - A CRITICAL APPRAISAL

*Binu Mole. K**

Abstract: The maritime Industry offers an essential medium for transport of substances through sea in ships, since it is convenient and economic for bulk carriage. But most of these substances carried through the sea are hazardous in nature and is also harmful to marine environment[1]. Even though the carriage of hazardous cargo like oil, Chemical, waste, radioactive substances are vital for international trade and useful to humanity, it has resulted in the growing risk of pollution of world's oceans and seas. At the same time it is undeniable fact that the mankind is both directly and indirectly dependant on the marine environment for their subsistence and hence is interested in its protection and preservation.

Key Words: Hazardous Wastes, Sea, Indian Laws.

Introduction:

The risk attached with the transport of these substances through the sea, the international nature of waters surrounding states and the limitations of national jurisdictions to exercise control over ships plying through maritime zones within and beyond its jurisdiction have sought the need for development of law to protect the marine environment at the international level. Efforts are also made at regional and national levels to prescribe and enforce this right to protection of marine environment from carriage of hazardous substances through the sea. The paper makes a sincere attempt to critically evaluate the current regime for protection of marine environment in the light of major developments of law in this regard made at international and national level to secure the socio-economic right to clean marine environment.

Hazardous Substances or Cargo: Concept and Meaning

Hazardous substances for the purpose of this paper are substances that may cause loss or damage to the marine environment, if escaped in to the marine environment when they are carried through the sea in ships[2]. Such loss or damage may be to human life, property at sea, or living and non-living organisms of the marine ecosystem. Some substances like explosives, radio active substances etc have inherently dangerous characteristics that make them fall under the purview of the term "hazardous substances". Certain other substances even though not inherently dangerous or hazardous in nature, they tend to pose threat to marine environment if they escape in to sea. Substances like oil and bulk cargo like grains, coal etc can also be harmful to marine environment and can be termed as hazardous substances for maritime transport. Other substances like chemicals, gases etc also exhibit properties that can tend to be hazardous or dangerous if they escape in to the sea. Since the nature of these substances and the hazard posed by such substances is different for different substances, there are no uniform criteria available in regulations to decide what constitute a hazardous substance from maritime transport point of view.

Maritime Transport of Hazardous Substances and International Law:

* **Assistant Professor, Government Law College and Part time Research Scholar, School of Legal Studies, Cochin University of Science and Technology, Cochin, Kerala, INDIA.**

[1] See Focus On IMO – "IMO and Dangerous Goods at Sea", IMO, May 1996 t p.2.

[2] For more discussion on meaning of hazardous substances see, Furquan Ahmad: "A Conceptual analysis of Hazardous substances in India", Chartered Secretary, September, P.379 (2002).

Major developments in regulation of maritime transport of hazardous substances through the sea occurred closely related to industrialization of 20th Century after the II world war. Until then environmental awareness among nations was very less and transport of hazardous substances was also negligible compared to that of the present century. The *'freedom of the sea'* concept of Hugo Grotius and the prevalent philosophy underlying the regime of the seas that its resources are generally inexhaustible and could sustain permanent injury from human activities gave environmental concerns least priority at international level[3].

The League of Nations, the predecessor of the International Maritime Organization (IMO) also could not secure international consensus on the issue of environmental pollution damage from carriage of hazardous substances through sea in ships[4]. Customary international law also lacked specific principles for protection of marine environment. Only guidance was provided by general principles of international law developed in the context of international relations[5].

The international control of carriage of hazardous substances through the sea started in its real sense only after the IMO came in to existence in 1948[6]. International efforts initially concentrated on improving safety of navigation by preventing Collisions and regulating routing of ships made Under the earlier SOLAS and International regulations for Prevention of Collisions'. But the increase in the seaborne transport of oil and its potential to pollute the marine environment began to concern international community. At the initiative of United Kingdom, International Convention on Prevention of Pollution of the seas by Oil was adopted in 1954. The Convention, at its inception dealt with only operational discharges. Its Inadequacy to prevent accidental oil pollution led to adoption of the International Convention for prevention of marine Pollution *viz*., MARPOL, 1973. The MARPOL attempted for the first time to deal with construction, design and Equipment standards that represented a major regulatory tool to prevent marine pollution from ships carrying substances harmful in general.

Regulation of liability and Compensation for marine pollution damage was late to be addressed by the IMO[7]. The lack of liability and compensation scheme received attention of IMO only after the catastrophic Torrey Canyon Incident of 1967which, till then was dealt with by common law remedies that proved to be inadequate to address environmental pollution damage. Under the current civil liability scheme, the shipping and cargo interests is made strictly liable for marine pollution damage arising out of maritime casualties subject to certain limitations and backed by compulsory insurance. This scheme initially introduced for oil pollution damage has now come to be the basis for dealing with liability and compensation arising out of maritime carriage of other hazardous substances like Radioactive substances, Hazardous and Noxious Substances (HNS), Hazardous waste etc[8].

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[3] Ian Brownlie, "A Survey of International Customary Rules of Environmental Protection" in Teclaff, Ludwick .A, Utton Albert .E, Edt., International Environmental Law (Praeger Publishers), Newyork, 1979, P.1.

[4] League of Nations failed to gather international consensus on this issue .Efforts to adopt SOLAS in 1914 and 1929 also failed.

[5] Principle of state responsibility for pollution damage usually evolved through Trail Smelter Arbitration,3R.Int'l Arb.Awards1905(1941), the Corfu Channel case,1949 ICJ Rep.4, Lake Lanoux Arbitration 12 R.Int'l Arb. Awards281 (1957) etc appeared too general in its applications to issues of marine pollution damage.

[6] Lawrence Juda, *'IMCO and the regulation of ocean pollution from ships'* , ICLQ,V.26,(1997) p 558-584.

[7] Principle of state responsibility for pollution damage usually evolved through Trail Smelter Arbitration,3R.Int'l Arb.Awards1905(1941),the Corfu Channel case,1949ICJ Rep.4,Lake Lanoux Arbitration12R.Int'l Arb.Awards281(1957) etc appeared too general in its applications to issues of marine pollution damage .

[8] See Civil Liability Convention, 1969, Protocol to the Basel Convention, 1989, Protocol to The HNS Convention 1996.

In an effort to prevent spreading of marine pollution resulting from shipping casualties, efforts were also made to evolve contingency and preparedness mechanism to make an early response to pollution incidents on the part of coastal states. This duty created on the part of coastal states and shipping interests tends to redefine the right to prevention of marine pollution from ships. The Oil Pollution Preparedness and response Convention, 1990 adopted by the IMO together with its 2000 Protocol extending it to other hazardous and noxious substances is another addition in this regard. This scheme in addition to obliging emergency preparedness and response mechanisms by flag states for ships under its flag also mandates a duty on the coastal states to prepare and implements National Contingency Plan to deal with casualties in a bid to minimize pollution. Also mandates a duty on the coastal states to prepared and implement National Contingency Plan to deal with casualties in a bid to minimize pollution.

Protection of Marine Environment from Carriage of Hazardous Substances and Indian Law

The Merchant Shipping Act, 1958 is intended to deal with all aspects of merchant shipping including the regulation of pollution from ships carrying hazardous substances in the Indian scenario. But In actual practice it does not comprehensively deal with all aspects of regulation for prevention of pollution from transport of hazardous substances. Among those provisions included are construction, design, equipment, manning and safety of navigation standards adopted by the IMO under SOLAS Conventions and MARPOL Conventions for prevention of accidental pollution damage.

Indian legal system is not responsive to developments made in the international scenario in this regard. In the matter of liability and compensation for marine pollution damage, the Indian Merchant shipping Act confined itself to regulation of pollution pursuant to carriage of oil. Even though civil liability principle has been accommodated to address liability and compensation issues arising out of maritime casualties involving ships carrying hazardous substances by IMO in 1969, India did not initiate measures till 2008[8]. Till then Liability and Compensation issues arising out of pollution damage from other hazardous substances was dealt by regulations not specific to maritime transport like Public Liability insurance Act, 1991, Environmental Tribunal Act, 1995 etc[9]. Another dark area in Indian Merchant Shipping Act is the provisions on marine pollution contingency preparedness and response mechanism mandated under the OPRC Convention, adopted by the IMO in 1990. A glaring issue is whether a legal obligation if at all exists under Indian legal system that warrants a duty to provide for such a mechanism. Even after the adoption of OPRC Convention and its protocol, nothing has been done to implement it in Indian Scenario. Nothing has been done to amend the Merchant Shipping Act to include similar provisions and current provisions rest on administrative directions issued by Coast Guard. The latest entry in to the array of norms for prevention of marine pollution viz., the International Ship Safety management Code also has also been adapted in to Indian scheme after a decade of its adoption by the IMO in 1998.

Right to Clean Marine Environment: A Critical Appraisal:

The evolution of law in this regard show that public control of marine pollution has grown in response to several eventualities like increase in seaborne transport , introduction of new hazardous substances and in response to major casualties[10] involving ships carrying hazardous substances. There has never been a candid attempt at international level to study the issue in a broader perspective to evolve a comprehensive system. The Coastal states, lying adjacent to international sea routes are most vulnerable to the risk of marine pollution arising from the trans-boundary movement of hazardous substances through the sea. But the jurisdiction

[9] See Also Kiran , R Bhanu krishna, '*Law of liability for maritime Accidents in India*' , The Journal of Maritime Law and Commerce , (2007).

[10] See generally Abecassis : Oil Pollution from ships , Stevens and Sons, London ,(1985).

bestowed on coastal states under UNCLOS and other International measures adopted by the IMO to regulate and enforce right to clean marine environment of waters under its jurisdiction is inadequate and uncertain. The existing jurisdictional provisions tend to perpetuate conflicting jurisdiction over ships by different coastal states. Coastal states right to intervene in maritime casualties also remains controversial owing to lack of clarity as to exercise of right of intervention under the Intervention Convention and UNCLOS provisions.

The regulatory tool to check marine pollution from trans-boundary movement of hazardous substances through sea relies heavily on ensuring physical safety of ships through technical standards of construction, design, equipment and manning of ships to keep pollution to the minimum. Again the enforcement of these standards faces a set back due to absence of effective safeguards in international norms to insist both prescription and enforcement of uniform standards in national jurisdictions. The liability for violation of right to clean marine environment under international scheme is based on strict liability principle backed by compulsory insurance. But different yardsticks of liability varying between compensation and criminal liability tend to unsettle the international mandate underlying MARPOL Convention and CLC regime. The principles of limitation of liability and compensation for marine pollution damage also remains critical as the current scheme is insufficient to address extensive marine pollution damage arising out of catastrophic pollution incidents as in the case of Exxon Valdez and Prestiege. Another major restriction to proper exercise of right to clean marine environment is inapplicability of concept of pollution damage to all kinds of environmental loss and damage arising from casualties involving ships carrying hazardous substances. Even though pollution response and contingency mechanism is cast as a duty of state in both international and national norms, it seldom benefits the victims of pollution incidents since due to lack of co-ordination on the part of state administrative agencies implementing them.

Concluding Observations:

Law regulating prevention of marine pollution from carriage of hazardous substances through sea requires a paradigm shift in order to make the exercise of right to clean marine environment effective. The peculiar nature of marine environment requires special regulations keeping in view interests of merchant shipping and marine environment. So it is apt that law in this regard be consolidated and brought under the umbrella of Merchant shipping Act and the rules attached there under. It is also the need of the time that Uniform principles underlying the International norms are accepted as a bench mark while prescribing regulations fixing liability, limitation of liability and compensation for marine pollution damage from all hazardous substances alike.

CURRICLUM VITAE

Binu Mole.K
W/o R.Mahesa Rengaraj
email:binumolek@gmail.com
Mob: 9497804305

CURRENT POSITION

- Assistant Professor of law, Govt. Law College, Trichur

PREVIOUS TEACHING ASSIGNMENTS

- Guest lecturer in Government Law College, Tiruchirappalli.
- Guest Lecturer, School of Legal Studies, Cochin University.
- Full time lecturer in Central Law College, Salem.

ACADEMIC PROFILE

UGC – NET 2000

LL.M in Maritime Law & Labour laws from School of legal Studies, CUSAT (1997-1999)

LL.B from Govt. Law College, Ernakulam (1992-1997)

RESEARCH PUBLICATIONS

- "Legal Regulation of Carriage of Hazardous Substances through Sea : A Critical Appraisal", 3 The Legal Analyst, (2013)
- "Consumer of Carrier service: A Consumer perspective" 27 Cochin University Law Review, (2004)

PRESENTATIONS

- Convened a national UGC sponsored seminar on "Child Sexual Abuse: Socio – Legal Perspectives" at Govt. Law College Trichur on February 3rd & 4th, 2012.
- Presented paper on "Protection of Marine Environment from carriage of hazardous substances through the sea" at the UGC sponsored national seminar organized by the Department of Law, University of Kerala on 5thFebruary, 2011.
- Presented paper on "legal education in globalised context :Pros and cons" at the National Seminar on Legal Education held at School of Legal Studies on 19 th and 20th March 2010.
- Presented paper on "The Kerala Conservation of Paddy Land and Wetland Act, 2008: A Review" at the national Seminar on "Conservation Of Paddy lands and Wetlands in Kerala : The Socio-Legal Perspectives" held at the School of Legal studies , CUSAT on 18th and 19th December 2009.

BINU MOLE K