REGULATING TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE: AN OVERVIEW

Dissertation submitted to the Jawaharlal Nehru University
in partial fulfilment of the requirements
for the award of the Degree of

MASTER OF PHILOSOPHY

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1997

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21 July 1997

CERTIFICATE

This is to certify that the M.Phil. Dissertation entitled *Regulating Transboundary Movement of Hazardous Waste: An Overview* submitted by *Mr. Shikhar Ranjan* for the award of the Degree of *Master of Philosophy* of *Jawaharlal Nehru University* is his original work. This has not been published or submitted to this or any other University for the award of any other degree. To the best of our knowledge this is a bonafide work.

We therefore recommend that this Dissertation be placed before the examiners for evaluation.

PROFESSOR S.K. DAS
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ACKNOWLEDGEMENTS

I would like to express my deep gratitude to the many people who helped me in various ways to complete this dissertation. Discussions with my Supervisor Dr. Bharat Desai helped me in better understanding of the subject. It is only because of his constant encouragement that it has been possible for me to complete this onerous task.

I take this opportunity to thank my other teachers, Professor R.P. Anand, Professor Rahmatullah Khan, Professor V.S. Mani, Professor Yogesh K. Tyagi and Dr. B.S. Chimni. I also extend my profound regards to Dr. Mahendra Singh Sissodia. Interaction with them not only provided me with an opportunity to develop my understanding of International Law, but also helped me in learning of humane values.

I am particularly grateful to my esteemed senior Mr. Manoj Kumar Sinha for all that he has done for me. Special thanks are due to Ravindra. And to Najib and Sanjay I owe a deep sense of gratitude for helping me all through.

I am extremely thankful to Smt. J.R. Aiyer for cheerfully typing the manuscript and carrying out the numerous corrections.

Last, but certainly not the least, the constant support of my family members has helped me in the timely completion of this work.

- Shikhar Ranjan

CONTENTS

INTRODUCTION

INTRODUCTION

Industrial development has helped the humanity in solving many of its problems. But it has also created some new ones -- generation of huge quantities of waste worldwide, being one of them. Waste has to be disposed of safely otherwise its accumulation becomes a public menace.

Waste posing grave threat to human health and environment is classified as hazardous waste. The quantities of hazardous wastes being generated worldwide is growing. Although much of the hazardous waste is generated in the industrialized countries, yet owing to demands of industrialization in Third World nations, there has been spurt in the quantities of hazardous waste produced in these countries.

The dangers posed by the unsafe disposal of hazardous wastes was globally well understood in the past two decades. Under vigilant public consciousness industrialised countries had to tighten their environmental regimes. Consequently, the cost of disposal of toxic and dangerous wastes escalated in these countries. Unscrupulous traders in industrialized countries found a short cut. They started exporting hazardous wastes to developing countries, with weak laws,

poor regulatory mechanism, and inadequate disposal facilities.

The exportation of hazardous wastes meant that the risk involved in the disposal of toxic wastes is transferred from industrialized countries to developing countries. It also meant that the innocent people and their future generations in these countries were exposed to dangers created by rich countries without their consent. A commentator has therefore described this practice as 'environmental racism on an international scale'.[1]

This problem of transboundary transport of hazardous wastes, and their disposal far from the place of generation, has become a major environmental issue. A large number of incidents of uncontrolled dumping of hazardous wastes from industrialized countries to the developing countries came to light in the past decade. Public knowledge of these incidents created world-wide awareness against the dangers posed by international trade in toxic wastes. An enlightened public opinion forced the Governments to react and international community united to face this challenge from mid-1980s.

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[1]Hugh J. Marbury, "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism", *Vanderbilt Journal of Transnational Law*, vol.28, no.2, (1995), p.251.

The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted under the auspices of UNEP, represents a first step in defining the global means to reduce and strictly control the movements of hazardous wastes and to ensure that these wastes are disposed of in an environmentally sound manner. This Convention is viewed as a landmark in the struggle against the dumping of hazardous wastes from industrialized nations to the developing countries, with less advanced technical capacities and less stringent environmental laws.

The Basel Convention is the global treaty on the subject of hazardous waste management. This issue was also under the focus of Regional Organizations. The Organization of African Unity (OAU), the Organization for Economic Cooperation and Development (OECD), the European Union (EU), the Central American States, the African-Caribbean-Pacific States (ACP) have adopted regional Conventions or agreements to face the challenges posed by dumping of hazardous wastes.

This Study consists of four Chapters. The first Chapter provides the historical background to the international regulation of transboundary movement of hazardous wastes. This Chapter discusses the effect of unsafe disposal of hazardous waste on the human health

and environment, the problem of the transboundary movements of hazardous wastes and the reasons for its increase.

The second Chapter will discuss the international legal framework regulating transboundary transfer of hazardous wastes. It first discusses the customary law on the subject, second it traces the evolution of the global treaty -- the Basel Convention, third it discusses the salient features of the Basel Convention. Finally, it also refers to the plan of action contained in Agenda 21.

The third chapter discusses the relevant regional international agreements addressing the issue of international trade in hazardous waste. Lastly, the fourth Chapter, contains conclusions.

The Research Methodology used has been mainly analytical in focusing upon international regulatory framework relating to transboundary movements of hazardous wastes. Publications and documents of various international organizations have been used for the purpose. Various scholarly writings on the subject of hazardous wastes have also been critically analyzed.

Chapter I

Chapter I

HISTORICAL BACKGROUND

I. *INTRODUCTION*

Change is the law of life. That is the obvious truth of history.[1] The second half of the eighteenth century ushered in the Industrial Revolution in England.[2] The advent of machinery meant that an entirely new phase was opening up in the history of human occupation.[3] It also heralded in vast growth of scientific knowledge and technological advancement. The application of science and technology to transport, agriculture, industry, warfare, communications, entertainment and daily life has dwarfed every other progress made until then in the history of human civilization.

Industrial revolution ignited a chain-reaction which transformed the world with an unprecedented speed and

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[1]R.P. Anand, *New States and International Law* (Delhi, 1972), p.1.

[2]For a detailed history of Industrial Revolution in England, see E.H. Carter and R.A.F. Mears, *A History of Britain* (Oxford, 1960).

[3]Ibid., p.663.

dynamism. Industrial progress of a country determines its level of development, and on its basis the world is divided into on the one hand in the industrialized North and on the other hand the least developed and developing countries of the South.[4]

Industrial development which has primarily benefitted the industrialized countries has caused immense harm to the health of our planet -- the earth.

> Our planet's ecological vital signs continue to warn us of an accelerating rate of degradation -- depletion of the ozone layer that shields us from harmful solar radiation, erosion of productive soils needed to grow food, contamination of fresh water with hazardous wastes, depletion of fish stocks, the massive loss of biodiversity, the threat of climate change and global warming'.[5]

If all these ecological vital signs are not taken care of then the very survival of life on this planet is in imminent danger.

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[4]On the basis of industrial development, the Human Development Report 1997 lists 48 countries as least developed, 129 countries as developing countries and 50 countries as developed, *UNDP, Human Development Report, 1997* (New York: Oxford University Press, 1997), p.243.

[5]Elizabeth Dowdswell in Foreword to Katharina Kummer, *Transboundary Movement of Hazardous Wastes at the Interface of Environment and Trade* (UNEP Environment and Trade Monograph no.7, Nairobi 1994).

II. *THE PROBLEM OF WASTE AND ITS DISPOSAL*

'Waste' means anything which is no longer of use.[6] It is the result of human activity Generation of waste results from the normal processes of living. In the pre-industrial world when human needs were simple and confined to the satisfaction of basic urges of food, clothing and shelter, the generation of waste was minimal. Most of the waste which was produced was reutilized in some way, 'if only as fertilizers'.[7]

The post industrial revolution phase witnessed large scale changes in human society. There was a mass movement of people from rural to urban areas. In order to cater to this ever increasing and changing demand, modern means of mass production have created a plethora of both disposable and non-disposable goods. As due to changing consumer preferences, goods quickly become obsolete and this has caused an acceleration in the process of garbage accumulation. Kiss, notes this as the "throwaway culture". This was followed by an ever increasing flood of materials into urban areas. The

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[6]A.S. Hornby, *Oxford Advanced Learner's Dictionary of Current English* (Delhi: Oxford University Press, 1986), p.967; The definition of waste will be discussed elaborately in Chapter II.

[7]Alexandre Kiss, "The International Control of Transboundary Movement of Hazardous Wastes", *Texas International Law Journal*, vol.26 (1991), p.521.

original definition of waste *res derelicta* (or abandoned object), corresponds to the concept of a "throwaway culture".[8] In this context, Desai characterizes the problem of waste generation, as "one of the byproducts of industrial development".[9]

Such waste materials cannot be accumulated on individual property without creating a menace to public health, fire hazards, and utilizing valuable space needed for other purposes.

III. *THE PROBLEM OF DISPOSAL OF HAZARDOUS WASTE*

Hazardous waste is a subset of universal set waste. The generation of hazardous waste is the product of over-industrialization. It may be defined as 'any material or mixture of materials, that is corrosive, flammable, reactive, toxic or irritable'.[10] This mixture of material is also capable of causing serious injury, illness or damage to humans, domestic livestock or wild

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[8]Ibid.

[9]Bharat Desai, "Regulating Transboundary Movement of Hazardous Wastes", *Indian Journal of International Law*, vol.37 (1997), p.43.

[10]H.C. Sharma, "Disposal of Hazardous Waste Step by Step Solution", *Indian Journal of Environment Protection*, vol.13, no.1 (1993), p.81. The definition of hazardous waste will be discussed elaborately in Chapter II.

life.[11] Also the said material bioaccumulates in nature and is not subject to biological degradation.[12]

Thus, the hazardous waste is inherently dangerous to the human health and environment. It has to be treated safely and effectively as its generation, storage, treatment, transport, recovery, transboundary movement and disposal pose a real problem to the society.

IV. *EFFECT OF HAZARDOUS WASTE ON ENVIRONMENT*

Once hazardous wastes have been generated, they must be disposed of in an environmentally sound manner. However, all these traditional methods of hazardous waste disposal are adverse to environment in one way or the other. Dumping at sea causes damage to the fragile aquatic flora and fauna. Land-fill contaminates the ground water and leads to the deterioration of land quality around it. Incineration i.e., burning of waste leads to production of deadly gases affecting the environment. While in recycling, the residue which is produced becomes more deadly and harmful to the environment. Above all, if the hazardous waste is allowed to accumulate, it poses danger as it is not

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[11]Ibid.

[12]Ibid.

subject to biological degradation. In addition, the release of hazardous wastes in agricultural countries, which then export food products, can affect human health elsewhere.

V. *EFFECT OF HAZARDOUS WASTE ON HUMAN HEALTH*

The unsafe disposal and handling of hazardous waste can impair human health in many ways. Krishna Murti notes with concern in this regard:

> Adverse health effects may involve any organ of the body or any of the vital physiological functions. The effects would depend upon the specific chemicals to which exposure has occurred, the characteristic of the individual such as age, sex and genetic make up, the metabolism of the chemical and the operation of confounding variable viz., personal habits and prevalence of other diseases. Of primary concern from long term perspectives are cancer, genetic defects, congenital anomalies, reproductive abnormalities, alteration of immune status and disorders of the central nervous system and behaviour.[13]

Health effects elicited by toxic chemicals present in hazardous waste is depicted in the following figure:[14]

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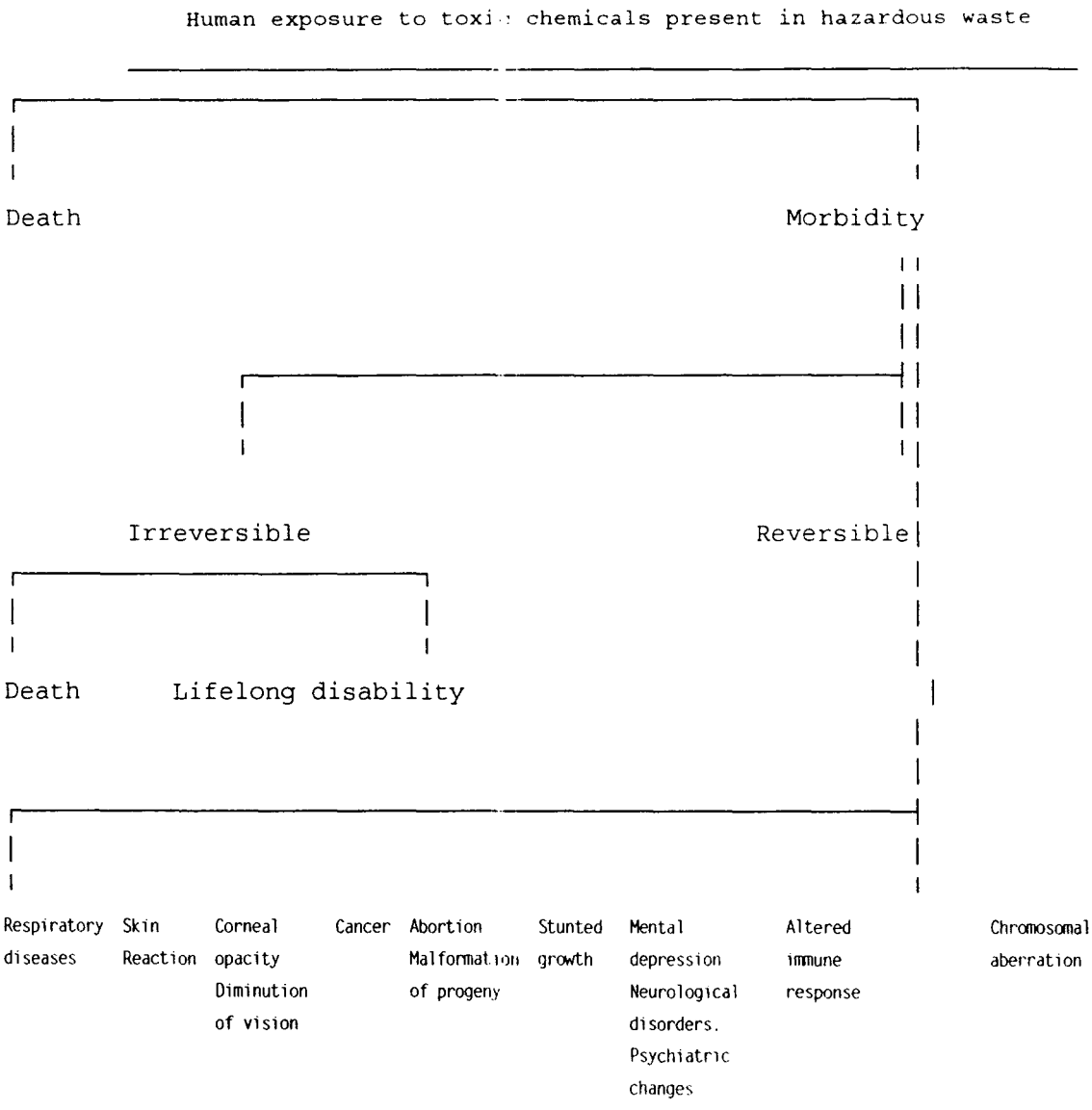
[13]C.R. Krishna Murti, "Health Implications of Hazardous Waste Management", *Indian Journal of Environment and Health*, vol.31, no.1 (1988), p.9.

[14]Ibid., p.6.



VI *THE QUANTITIES OF HAZARDOUS WASTE GENERATED*

Reliable data on the production of hazardous wastes worldwide are difficult to obtain. The reasons being, first, that many countries have only recently begun to regulate such wastes and, second, those that regulate them differ in defining and classifying them. Though there are certain figures available, but it can only

provide a rough indication of the quantity of hazardous waste generated.

The International Register for Potentially Toxic Chemicals[15] estimates that the world production of organic chemicals increased between 1950 and 1985 from approximately 7 million metric tonnes to over 250 million metric tonnes. The generation of the amount of hazardous waste is believed to have increased accordingly.[16] The World Commission on Environment and Development (WCED) estimated that in 1984 some 325 million to 375 million tonnes of hazardous waste were generated worldwide.[17] The Report pointed out that only 5 million tonnes of this figure was produced in newly industrialized areas of the world.[18] The Commission noted with concern that the

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[15]In 1976, United Nations Environment Programme (UNEP) established the International Register for Potentially Toxic Chemicals which collects and disseminates information on hazardous chemicals, including national laws and regulation controlling their use. IRPTC operates through a network of national and international organizations industries and national correspondents for information exchange which have now been appointed in 112 countries. See, Mostafa K. Tolba, Saving Our Planet: Challenges and Hopes, UNEP/GCSS III/2 (Nairobi: UNEP, 1992), p107

[16]These figures were quoted in United Nations, *Report of the Secretary General to the General Assembly on Illegal Traffic in Toxic and Dangerous Wastes*, 18 July 1989 (UN Doc. A/44/362) at p.6 (hereinafter referred to as the UN Report).

[17]World Commission on Environment and Development, *Our Common Future* (Oxford, 1987), p.227 (New York: Oxford University Press, 1987).

[18]Ibid.

industrialized nations generate about 90 per cent of the world's hazardous waste.[19]

Tolba estimates that 338 million tonnes of hazardous wastes are produced annually worldwide. Of this 275 million tonnes is produced in the United States of America alone. Thus, the US produces 81 per cent of the total hazardous waste generated worldwide.[20] United Nations Environment Programme (UNEP)[21] estimates that the global volume of hazardous wastes generated each year range from 300 to 500 million tonnes.[22]

The Human Development Report (1997) estimates the generation of hazardous waste in North America as 283, 786 tonnes, Western and Southern Europe as 47,259 metric tonnes, Nordic countries as 808 metric tonnes. It puts the generation of hazardous waste in Organization for Economic Cooperation and Development (OECD) as 337,777 metric tonnes and European Union as 48,222 metric tonnes.

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[19]Ibid., p.226.

[20]Tolba, n.15, p.111.

[21]United Nations Environment Programme (UNEP) came into being as a follow up to the United Nations Conference on Human Environment (Stockholm). It was set up to "serve as a focal point for environmental action and coordination within the United Nations system in such a way as to ensure a high degree of effective management". See Report of the UN Conference on the Human Environment. A/Conf. 48/14/Rev.1 (Stockholm 5-16 June 1972), p.30.

[22]UNEP, *Environmental Data Report*, 1993-94 (Oxford, 1993), p.332.

As per the report, US is the largest producer of hazardous waste with a production of 276,000 metric tonnes.[23] The share of the USA appears particularly high because in that country large quantities of dilute waste waters are managed as hazardous wastes.[24] In Europe, these are managed under water protection regulations and do not appear in the hazardous waste statistics.[25]

The World Development Report (1992) estimates that economies in the industrialized countries produce about 5,000 tonnes of hazardous waste for every billion dollar of Gross Domestic Product (GDP), as compared to the total amount of only a few hundred tonnes in many developing countries.[26] The Report also pointed out that on the basis of present trends, the volume of toxic heavy metals generated in countries as diverse as China, India, Korea and Turkey will reach the levels comparable with those of present day France and United Kingdom within 15 years.

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[23]UNDP, n.4, p.221.

[24]Katharina Kummer, *International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules* (Oxford: Clarendon Press, 1995), p.5.

[25]Ibid.

[26]World Bank (IBRD), World Development Report 1992: Development and the Environment (Oxford: OUP, 1992).

VIII *TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES*

[A] *The Nature Of The Problem*

The transboundary movement of hazardous waste concerns waste that is exported from one country to another country for disposal on the soil, under the surface of earth, or by treatment in specialized plants. The problem which the transboundary movement of hazardous waste poses is that when hazardous waste moves from state A to State B for disposal or recycling mismanagement can cause significant damage in State B or in a transit State C, either during the movement or after disposal or recycling in state B.

The global trade in hazardous waste is a multi billion dollar industry.[27] Much of the trade takes place between the industrialized countries.[28]

The peculiar problem which the international trade in hazardous wastes poses is that since 'hazardous waste generally have no positive economic value to the

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[27]Sean D. Murphy, "Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes", *American Journal of International Law*, vol.88 (1994), p.24.

[28]Ibid.

generator, unless they can be recycled',[29] hence the generator's interest lies in keeping their waste treatment, transport and disposal cost as low as possible. This can induce a decision to export wastes to another country for disposal. Remond has rightly pointed in this regard that

> [u]nlike the consignor in an ordinary transport arrangement, the consignor of hazardous wastes has virtually no economic interest in the safe arrival of the shipment at its final place of disposal'.[30]

Thus, even before the waste reaches its destination, the transporter hired by the generator has an incentive to "lose" as much of the shipment as possible, to reduce its costs in time, fuel and effort.[31]

This is the peculiarity of the problem posed by the carriage of waste. The carrier has no incentive to take care of it and sometimes may well benefit from disposing of it en route. Deliberate or negligent illegal action both lead to the same result: the hazardous wastes are

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[29]David J. Abrams, "Regulating The International Hazardous Waste Trade: A Proposed Global Solution", *Columbia Journal of Transnational Law*, vol.28 (1990), p.806.

[30]M. Remonds, "The Carriage of Hazardous Waste and the Liability Question", in OECD, *Transfrontier Movements of Hazardous Wastes: Legal and Institutional Aspects*, (Paris, OECD, 1985), p.211.

[31]Ibid.

disposed into the environment. Therefore, a major problem in regulating hazardous waste transport 'is removing the transporter's temptation to arrange for the disappearance of the waste en route to the final disposal site".[32]

[B] *The Major Incidents of Transboundary Shipment of Hazardous Waste*

Following are some of the incidents involving the transboundary movement of hazardous waste. These incidents brought out the inherent dangers involved in this dangerous trade. Moreover it enlightened public consciousness and under public pressure the international community reacted swiftly to evolve an international regulatory mechanism.

(a) *The Seveso Affair*

The problem of transboundary shipments of hazardous waste received serious public attention for the first time in 1983, when forty one missing drums containing top soil contaminated with highly toxic dioxin from the 1976 Seveso Chemical Plant explosion (in Italy) was found in a barn in San Quentin, France. Fortunately, the drums which had crossed the Franco-Italian border undetected,

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[32]Abrams, n.29, p.807.

were still intact.[33] This incident drew a great deal of public and government attention in Europe. Following this incident the European Community adopted a directive regulating transboundary shipment of hazardous wastes.[34]

(b) *The Journey of Khian sea*

Another serious international hazardous waste trade incident involved the world's most heavily travelled waste trading vessel, the *Khian Sea*.[35] Between August 1986 and November 1988, the Khian Sea traversed the Caribbean seeking a dump site for toxic incinerator ash which had originated in Philadelphia (US). The ship carried the incinerator ash to five continents and was refused specifically by Panama, the Bahamas, Bermuda, the Dominican Republic and the Honduras. Finally in October 1987 Haiti's Department of Commerce agreed to dispose of the incinerator ash. However, once Greenpeace alerted

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[33]See, Wassermann, "The Seveso Affair", *Journal of World Trade Law*, vol.17 (1983), p.371.

[34]European Community, Directive on the Supervision and Control within the European Community of the Transfrontier Shipment of Hazardous Waste, Council Directive 84/631, 27 O.J. Eur. Comm. {No.L326/31 (1984)}.

[35]Jim Valletta and Heather Spalding (eds.), *The International Trade in Wastes: A Greenpeace Inventory* (Washington DC, 1990), pp.21-25. Also see, Desai, n.9, p.46.

Haiti to the potential hazards in disposal of wastes, Haiti rescinded its permit. By the time of the rescission, the Khian sea had spread an estimated 3000 tons of ash on a northern Haitian beach. Tests showed high levels of Cadmium, arsenic, mercury and dioxins at the site. These hazardous waste can contaminate drinking water supplies and cause kidney malfunctions, respiratory difficulties or death.

When the ship docked in Singapore in November 1988 its cargo holds were empty. The wastes disappeared somewhere between Haiti and Singapore. There is speculation that the captain of the Khian sea dumped the ash in the Indian Ocean near the Southern China coast or on sparsely populated islands near the Bay of Bengal.

(c) *The Koko Incident*

In 1987-88 an Italian company entered into a contract with an impoverished farmer in the Nigerian coast city of Koko to use his vacant plot as dump site. The company offered him $100 a month for the use of his land as dumpsite. It illegally exported 8,000 chemical drums. But when the newspaper reports raised question about the leaking drums, Nigerian authorities discovered that they contained a stew of chemical toxins, including poly-chlorinated biphenyls, a highly carcinogenic product

of the electrical industry. This ensued a major political controversy between Nigeria and Italy. Ultimately, Italy agreed to accept responsibility for the wastes and reimported them. Over fifty Nigerian officials were implicated in this incident.[36]

(d) *The Odyssey of 'Karin' B*[37]

The ship Karin B containing two thousand tonnes of toxic waste from Nigeria returned to Italy after a nine week odyssey in which six European countries refused to accept its cargo. Another ship, the Deep sea carrier, finally returned to Italy in July 1989 carrying the remainder of the waste from the same site. It encountered a storm of protest in various Italian port cities that did not want to take responsibility for the waste. Finally, the Italian Government had to intervene and it has spent more than fifteen million dollars for the reclamation of the Koko dumpsite, the transport of the waste drums and the final disposal of the wastes. This expenditure highlights the potential economic as

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[36]Harry Anderson and others, "The Global Poison Trade", *Newsweek* (New York, N.Y.) 7 November 1988, p.8. Although Nigeria filed an official complaint against Italy at the International Court of Justice, Italy reimported the hazardous waste because of political and moral pressure rather than a sense of legal responsibility. See, Abrams, n.29, fn.35, p.810. Also see Desai, n.9, p.46.

[37]See Abrams, ibid. Also see Anderson, n.36, p.10.

well as political ramifications of the illegal waste trade.

(e) *The Guinea Bissau Case*

The issue of dumping of hazardous waste in a third world is highlighted by the Guinea-Bissau case. In 1988, an American company persuaded Guinea Bissau, a tiny West African state to accept 15 million tonnes of toxic waste over the next five years. Guinea Bissau was to receive under the deal $600 million -- twice its foreign debt and more than five times the value of its total annual exports. Under pressure from its West African neighbours the deal had to be cancelled.[38]

(C) *Quantities of Hazardous Waste Exported*

It is very difficult to estimate the quantities of hazardous waste involved in international trade. The reason being that this trade is based on secrecy, deception, mislabelling and clandestine transactions. A UN Report points out that most of the trade from industrialized to developed countries was being carried out in contravention of existing national legislation and

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[38]For details see, n.36, p.8.

relevant international instruments.[39] Most of the international trade in hazardous waste takes place without the knowledge or is beyond the control of state authorities.[40] Moreover, systematic monitoring and data collection does not exist in many states.[41] Also, national definitions of wastes and hazardous waste differ widely.

The Greenpeace Report[42] reveals that waste traders have attempted to ship more than 163 million tonnes of toxic wastes around the world since 1986. Of this total approximately 100 million tonnes of toxic waste have actually been exported from the countries of origin, often ending up in less industrialized countries that do not have environmentally sound facilities to manage the waste. Almost 52 million tonnes of waste have been shipped to East European and less industrialized countries. However, this total of known shipments reveals just the "tip of the iceberg". The actual figure

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[39]See, the UN Report, n.16, p.4.

[40]Ibid., p.6.

[41]ibid., p.4.

[42]Greenpeace is an international organization dedicated to preserving the earth and all the life it supports. Greenpeace works to stop the threat of nuclear war to protect the environment from nuclear and toxic pollution, and to halt the needless slaughter of whales, dolphins and other endangered animals. Greenpeace has offices in 24 countries and more than 4 million members worldwide.

is probably much higher; much toxic waste leaves countries unmonitored and totally unregulated.[43]

According to a OECD study a cargo of hazardous waste is believed to cross a frontier within the OECD area every five minutes.[44] Within Europe, approximately 2.2 million tonnes of hazardous wastes are estimated to make a total of 100,000 border crossings per year,[45] the number of waste movements within North America has been estimated to be 6-9,000 tonnes annually.[46] Several thousand tonnes of hazardous wastes are believed to be moved between OECD and non-OECD states every year.[47] These figures refer to legal transactions only.[48]

According to reports submitted to the International Maritime Organization (IMO), between 6 and 17 million

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[43]Greenpeace Inventory, n.40, p.1.

[44]J.W. MacNeil, "Policy Issues Concerning Trans-Frontier Movements of Hazardous Waste", In OECD n.31, p.7.

[45]Ibid.

[46]Kummer, n.24, p.5.

[47]Ibid.

[48]Ibid.

tonnes of industrial wastes were being dumped at sea by industrialized states between 1980 and 1985.[49]

(D) *The Reasons for the Increase in Transboundary Movements of Hazardous Wastes*

The causes of the increase in the exportation of hazardous waste for disposal abroad are diverse. It can be studied under the following heads.

1. *Wastes following the 'path of least resistance'*

First, export of hazardous wastes destined for final disposal takes place along the 'path of least resistance'.[50] The UN Report ascribes the increase to the 'rapid disappearance of landfill space, the escalation in disposal costs and the great difficulty in obtaining government approval for the Construction and operation of incineration facilities'.[51] In addition, the growing public opposition to the disposal facilities,

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[49]International Maritime Organization (1989), Focus on IMO: Dumping at Sea -- IMO and the Convention on the Prevention of Marine Pollution by Dumping Wastes and other Matter (London 1989), quoted in Kummer, n.24, p.6.

[50]US Congressman Florio, 1984; quoted in Kummer, n.24, p.6.

[51]UN Report (1989), n.16, p.6.

termed, the 'NIMBY' (Not In My Backyard) syndrome'[52] are the reasons for increase of international trade in hazardous waste.

Such transfer is also done because the disposal in the potential target country is cheaper than in the state of origin. According to a study carried out in the late 1980s, the average disposal costs for one tonne of hazardous waste in Africa was US$2.50 to US$50, with equivalent costs in industrialized nations ranging from US$100 to US$2000.[53] Kummer notes that this discrepancy in costs is usually the result of lower environmental standards, an absence of public opposition, less stringent or non-existent laws and regulations, lack of control over compliance and the need to earn foreign exchange in order to reduce foreign debt.[54]

International trade in hazardous waste carried out for the above reasons frequently take place in contravention of 'existing national legislation and

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[52]Residents opposition to locating disposal facilities in the vicinity of their habitat is described as NIMBY (Not in my Backyard) phenomena.

[53]Roland Richter, Giftmüllexporte nach Afrika: Urberblick, Zusammenhânge, Perspektiven (Stiftung Wissenschaft und Politik, Ebenhaussen (Germany, 1989), pp.20-21, quoted in Kummer, n.26, p.7.

[54]Kummer, n.24, p.7.

relevant international instruments'.[55] This cost disparity motivates the unscrupulous traders to transfer the wastes to the country where they can maximize their profits. Further, they induce uninformed individuals and corrupt government officials to allow their business. The Koko incident of Nigeria, already noted, is a glaring example of this. It is because of these reasons that the 'illegal traffic from industrialized to developing countries has increased'.[56] In the recent past, Africa, Latin America and the Caribbean have been used as improper disposal sites for a wide array of wastes from the industrialized world.[57] Illegal traffic has also been reported in Asia and the South Pacific.[58] This situation causes maximum alarm as the economic, technical and regulatory imbalance between the generating and importing states is exploited for financial reasons. It is this situation that poses the gravest threat to human health and environment.

2. ***Wastes exported for joint disposal***: A second, more ecologically sound reason for exporting hazardous waste takes place on

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[55]UN Report (1989), n.16, p.4.

[56]UN Report (1989), n.16, p.4.

[57]Ibid., p.6.

[58]Ibid.

a regional scale. Wastes can be moved among neighbouring countries if this provides the soundest solution from an environmental point of view. Availability of superior technology for treatment or disposal in another state, joint disposal facilities of neighbouring state, or a multinational enterprise exporting its waste to a subsidiary in another country,[59] are the reasons for waste disposal taking place on a regional scale. For instance, recently, the US multinational Pepsi has started exporting its plastic wastes from America to its Indian subsidiary for disposal.

Such kind of trade takes place between the OECD countries and in the European Union. Under bilateral agreements the US exports its hazardous waste to its neighbouring states of Canada and Mexico for disposal.

3. *Wastes exported for recycling or recovery*

Another reason for the export of hazardous waste is the potential value as secondary raw material of certain hazardous wastes. Usually the wastes containing heavy metals are treated as a tradeable commodity and are exported in order to be subjects to recycling or resource recovery operation in the country of destination.

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[59]See, Public Interest Research Group, *Toxic Waste Trade: A Primer* (Delhi, 1994), p.1.

CONCLUSION

Hazardous wastes, because of the chemicals present in it, are inherently dangerous to human health and environment. Therefore, they require proper monitoring and 'environmentally sound' disposal. The growing incidents of unsafe disposal of hazardous waste have caused grave danger to human health and environment. It led to furore, which forced the international community, to evolve a regulatory mechanism. This international regulatory mechanism forms the basis of discussion in the next Chapter.

Chapter - II

Chapter - II

THE INTERNATIONAL REGULATORY FRAMEWORK: 1989 BASEL CONVENTION

I. INTRODUCTION

The international community got alarmed by the increasing instances of the transboundary movements of hazardous wastes from industrialized countries to developing countries for its adverse effects on human health and environment. To counter this threat the international community, under the auspices of United Nations Environment Programme (UNEP), adopted the 1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal.[1] The Basel Convention is the first global environmental treaty directly addressing the issue of international transfer of hazardous wastes.

This Chapter is intended to discuss, firstly, the customary law regulating the transboundary movement of hazardous wastes and its inherent weakness; secondly, the role of UNEP in the evolution of Basel Convention; Thirdly, the salient features of the Convention and

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[1]UNEP/WG. 190/4, Reprinted in ILM vol.28 (1989), p.657 (hereinafter referred to as the Basel Convention).

fourthly, an evaluation of the Convention and lastly the plan of action relating to hazardous wastes in Agenda 21.

II. *CUSTOMARY LAW RELATED TO TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES*

Custom is the oldest and the original source of international law as well as of law in general.[2] In the area of environmental law new concepts such as 'intergenerational equity', 'common concern', 'common heritage', 'sustainable development', exemplify the use of customary law making in order to advance changes in the nature and scope of national sovereignty as regards protection of environment and the exploitation of natural resources.[3]

Prior to the entry into force of Basel Convention, the problem related with international trade in hazardous waste was addressed by general international legal rules relating to environment protection, in particular,

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[2]Robert Jennings and Arthur Watts, *Oppenheimer's International Law*, Volume I Peace (Essex: Longman, 1992), p.25.

[3]Patricia W. Birnie and Alan E. Boyce, *International Law and the Environment* (Oxford, Clarendon: 1992), p.15.

pollution control in an 'incomplete and fragmentary fashion'.[4]

It is one of the established norms of international law that states have the sovereign rights over its territory and its resources. However, international law does not allow states to conduct activities within their territories, without regard for the right of other states. This rule was formulated in the famous *Trial Smelter* arbitration thus: "No state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another".[5]

The Corfu Channel case reiterated this rule that it was 'every state's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other states.[6]

The rule of 'due diligence' is considered to have laid the 'foundations of international environmental law

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[4]Katharina Kummer, "The International Regulation of Transboundary Traffic in Hazardous Wastes: The 1989 Basel Convention":, *International Comparative Law Quarterly*, vol.41 (1992), p.530.

[5]Trial Smelter Arbitration (US Vs. Canada) (1938), *American Journal of International Law*, vol.33, no.2, (1939), p.182.

[6]Corfu Channel Case, *ICJ Report* (1949), p.22.

in the field of transboundary pollution.[7] Principle 21 of the Stockholm Declaration, adopted by the UN Conference on the Human Environment, codified this rule in a way that specifically addresses environmental protection:

> States, have in accordance with the Charter of the United Nations and principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction do not cause damage to the environment of other States or of areas, by and the limits of national jurisdiction.[8]

This principle has become one of the "most fundamental customary law rules relevant to environment protection".[9] It is reiterated in Principle 2 of the 1992 Rio Declaration on Environment and Development,[10] as well as in many treaties and non-binding legal instruments. Customary law, thus obliges states to

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[7]Katharina Kummer, *International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules* (Oxford: Clarendon Press, 1995).

[8]See *Report of the UN Conference on the Human Environment*, A/Conf. 48/14/Rev.1 (Stockholm, 5-16 June 1972), p.5; reprinted in *International Legal Materials* (ILM), vol.11 (1972), p.1416.

[9]Kummer, n.7, p.17.

[10]See Report of the UN Conference on Environment and Development, A/Conf. 151/5.

cooperate in the control of transboundary pollution.[11] The obligation of prior informed consent with states likely to be affected by a potentially harmful activity is a concrete expression of this concept.[12] Principle 24 of the Stockholm Declaration formulates it thus,

> International matters concerning the protection and improvement of environment should be handled in a cooperative spirit by all countries, big or small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental affects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all states.[13]

Thus, every State has the sovereign right to control activities taking place within its jurisdiction. And under the exercise of this sovereign right, a state may therefore restrict or prohibit the import of hazardous wastes for the purpose of transit or disposal. Though this right is recognized, but as Kummer points out

> the notion of due diligence is unspecific, customary law does not provide a threshold for permissible hazardous activities...They do not provide much guidance with respect to hazards

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[11]A.E. Boyle, "Nuclear Energy and International Law: An Environmental Perspective", *British Yearbook of International Law*, vol.69, 1989, p.278.

[12]See, Lac Lanoux Arbitration (1957) *International Law Reports*, vol.24, p.101.

[13]Stockholm Declaration, n.7, p.8.

> created by the transfer of toxic substances, which constitutes in themselves a potential source of pollution from the State of generation into the territory of another state.[14]

This uncertainty as to the norms of customary law became one of the catalytic factors in motivating the international community to negotiate and conclude a global treaty regulating the transboundary movement of hazardous wastes.

III. *BACKGROUND TO THE BASEL CONVENTION*

Since the early 1980s, UNEP has been involved in the manifold aspects of hazardous waste management, including control of their transboundary movements and environmentally sound disposal. The evolution of Basel Convention through various stages is discussed as under:

(a) *Montevideo Programme of Development and Periodic Review of Environmental Law*

In 1981, the Governing Council of UNEP mandated a group of senior government officials expert in environmental law to identify major subject areas suitable for increased global and regional cooperation in

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[14]Kummer, n.4, p.531.

the elaboration of environmental law.[15] The Montevideo programme, identified the transport, handling and disposal of toxic and dangerous wastes as one of these major subject areas. Following this identification, UNEP initiated work with government experts on guidelines for the environmentally sound management of hazardous wastes, within the framework of UNEP, and in cooperation with other competent organizations.[16] This priority was recently reaffirmed and strengthened by the second meeting of the senior government officials, convened in Rio-de-Janeiro in 1991, to review the Montevideo Programme.[17]

(b) *Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes*

The UNEP Governing Council on the basis of the recommendation of Montevideo Programme authorised the Executive Director of UNEP to convene a working group of

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[15]UNEP Governing Council Decision 9/19A of 26 May 1981 (UNEP/GC. 9/19A), recalling Decision 8/15 of the previous year (UNEP/GC. 8/15) and UNGA Resolution 35/74 of 5 December 1980.

[16]UNEP, Montevideo Programme (Nairobi, 1982), *Report of the Ad Hoc Meeting of Senior Government Officials Expert in Environmental Law to the Governing Council of UNEP*, 7 December 1981 (UNEP/GC. 10/5/Add.2).

[17]UNEP, Review of Montevideo Programme (1981-91) (Nairobi, 1991), "Conclusions and Recommendations of the Rio Meeting of Senior Government Officials", *Environment policy and Law*, vol.22, no.2 (1993), p.123.

experts to develop guidelines or principles on the environmentally sound transport, management and disposal of hazardous wastes.[18] The work was completed in 1985 and the guidelines were adopted in 1987 by the UNEP Governing Council.[19]

These guidelines known as Cairo Guidelines, set out the major principles of hazardous waste management in rather broad and general terms. They are primarily designed to assist governments in the development and implementation of their national management policies for hazardous wastes. They aim at ensuring the protection of human health and the environment against the ill effects of hazardous wastes.[20] The Guidelines include the principles of waste minimization, promotion of new low-waste technologies, exchange of information, and transfer of technology.[21] They set out the principles of prior notification to states likely to be affected by transboundary pollution of waste disposal facilities, consultation in good faith with affected states, and equal access for nationals of a potentially affected

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[18]UNEP Governing Council Decision No.10/24 of 31 May 1982 (UNEP/GC. 10/24).

[19]UNEP Governing Council Decision No.14/30 of 17 June 1987 (UNEP/GC. 14/30).

[20]Ibid., Principle 2.

[21]Ibid., Principle 7.

state to relevant administrative and judicial proceedings in the state of origin.[22] They call for elaboration of safety standards, and for contingency planning.[23] It also addresses the issue of transboundary movement of hazardous wastes, laying down the principles of non-discrimination,[24] and prior notification to the prospective states of import and transit.[25] They recommend that no export of hazardous wastes should be permitted unless subject to the prior consent of such states.[26]

Desai points out that [Cairo] guidelines and principles formed a "soft law" and provided a basis for future treaty negotiations on the subject.[27] Birnie and Boyle find that the partial hardening of UNEP's Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Waste has taken place, in the

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[22]Ibid., Principle 26.

[23]Ibid., Principles 21, 22, and 23.

[24]Ibid., Principle 3 states: Each State should ensure that, within its jurisdiction, hazardous wastes to be exported are controlled no less stringently than those remaining within its territory.

[25]Ibid., Principle 26.

[26]Ibid.

[27]Bharat Desai, "Regulating Transboundary Movement of Hazardous Wastes", *Indian Journal of International Law*, vol.37, no.1 (1997), p.48.

1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes.[28]

Huntoon points out that though the 'Cairo Guidelines offered greater guidance than the Stockholm Declaration, they nonetheless failed to prescribe specific binding regulations of the transboundary shipment and disposal of hazardous waste'.[29] To sum up, Cairo guidelines provided a firm footing for future treaty negotiations and formed a basis on which the Basel Convention was drafted.

(c) *The Basel Negotiation Process*

In June 1987, in view of increasing awareness of uncontrolled movements of hazardous wastes, particularly to developing countries, the UNEP Governing Council, based on a joint proposal by Switzerland and Hungary, requested the Executive Director of UNEP to convene a working group to prepare a global legal instrument to control transboundary movements of hazardous wastes and their disposal. In early 1989, the Council also authorized the Executive Director to convene a diplomatic

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[28]Boyle, n.3, pp.27-28.

[29]Barbara D. Huntoon, "Emerging Control on Transfers of Hazardous Waste to Developing Countries", *Law and Policy in International Business*, vol.21 (1989), p.260.

conference to adopt and sign the Convention.[30] This decision and the resulting negotiations were subsequently endorsed by the Governing Council and by the UN General Assembly.[31]

The Executive Director convened the Ad hoc Working Group of Legal and Technical Experts with a Mandate to prepare a Global Convention on the Control of Transboundary Movements of Hazardous wastes. The Working Group met for the first time in October 1987. Subsequently, five sessions of the Working Group were held between February 1988 and March 1989. Experts from ninety-six states participated in one or more of the sessions and representatives of over fifty international organizations and NGOs attended as observers.[32]

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[30]UNEP Governing Council Decision, 14/30 (17 June 1987).

[31]UNEP Governing Council Decisions, 15/33 (25 May 1989), SS II/4/A (3 August 1990) and 16/30 (31 May 1991); UNGA Resolution 42/183 (11 December 1987), 43/212 (20 December 1988 and 44/226 (22 December 1989). Quoted in Kummer, n.6, p.40.

[32]See the Reports of the Working Group meetings as follows: Organizational Meeting, Budapest (Hungary), 27-29 October 1987 (UNEP/WG 180/3); 1st session, Geneva (Switzerland), 1-5 February 1988 (UNEP/WG.182/3); 2nd Session, Caracas (Venezuela), 6-10 June 1988 (UNEP/WG 186/3); 3rd Session Geneva, 7-16 November 1988 (UNEP/WG 189/3); 4th Session, Luxembourg, 30 January-3 February 1989 (UNEP/WG 190/4); 5th Session, Basel (Switzerland), 13-17 March 1989 (Final Report of the Working Group with Report on the Fifth Session as Annex 1: UNEP/IG.80/4).

The Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movements of Hazardous Wastes, convened at the invitation of the Swiss government from 20-22 March 1989 in Basel (Basel Conference), considered the final draft of the Convention submitted to it by the Working Group. The Basel Convention was adopted unanimously by the Conference on 22 March 1989.[33] The Conference also adopted eight resolutions related to further development and implementation of the Basel Convention. In accordance with Article 21, the Convention remained open for signature at the Federal Department of Foreign Affairs of Switzerland in Berne from 23 March 1989 to 30 June 1989, and subsequently at the Headquarters of the United Nations in New York until 22 March 1990. Fifty three states and the EU immediately signed it.[34] It entered

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[33]Final Act of the Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movement of Hazardous Wastes, 22 March 1989. UN Doc. EP/IG.80/L.12 (1989).

[34]The following states signed the Basel Convention: Afghanistan, Argentina, Austria; Bahrain; Belgium; Bolivia; Canada, Chile; China; Colombia; Cyprus; Denmark; Ecuador; El Salvador; Finland; France, Federal Republic of Germany; German Democratic Republic; Greece; Guatemala; Haiti; Hungary; India; Ireland; Israel; Italy; Jordan; Kuwait; Lebanon; Liechtenstein; Luxembourg; Mexico; Netherlands; New Zealand; Nigeria; Norway; Panama; Philippines; Poland; Portugal; Saudi Arabia; Spain; Sweden; Switzerland; Syria; Thailand; Turkey; USSR, United Arab Emirates; UK; USA; Uruguay and Venezuela; UN *Multilateral Treaties Deposited with the Secretary General Status as at 31 December 1995* (UN, New York, 1996), ST/LEG/SER.E/14, pp.893-94.

into force on 5 May 1992 upon deposit of the 20th instrument of accession.[35] As of July 1996, 102 states have ratified or acceded to the Basel Convention.[36]

(d) *The North-South Divide*

Sharp differences of opinion emerged between the industrialized countries of the North and the developing countries of the South during the course of negotiations. Owing to wide media coverage of the illegal traffic in hazardous wastes from industrialized countries to developing countries, the issue stirred public consciousness in developing countries. This forced the issue to become politically sensitive. South regarded the deliberations as an opportunity to demonstrate their solidarity in refusing to tolerate the use of their territories as dumping grounds for toxic wastes from the industrialized world. Many developing countries and environmental groups called for an outright ban on hazardous waste exports or, at the very least, a prohibition against shipments from industrialized to developing countries. Developing countries believed that no system of international regulations could fully

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[35]The Basel Convention, n.1, Article 25.

[36]See UNEP, "Managing Hazardous Wastes", *Newsletter of Secretariat of Basel Convention* (Geneva), no.9, July 1996, p.4.

safeguard environmental integrity and human health against the dangers of improper or illegal waste disposal, especially in ill equipped developing countries.[37]

Industrialized nations, on the other hand, were especially concerned by the prospect of strict procedural limitations on the many tonnes of hazardous wastes shipped among themselves each year for recycling or disposal. These nations were in favour of a limited ban, instead of a total ban, addressing their requirements of hazardous wastes disposal.[38]

UNEP attempted to ensure that the terms of Basel Convention would be acceptable both to industrialized and developing countries. However, UNEP was of the view that

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[37]Working Group Third Report, n.32 at 3; Also see, David J. Abrams, "Regulating the International Hazardous Waste Trade: A Proposed Global Solution", *Columbia Journal of Transnational Law*, vol.28, no.3 (1990), p.818.

[38]The terms total ban and limited ban are terms of art as developed by UNEP in drafting and revising the Basel Convention. A total ban forbids the importation and exportation of hazardous waste into or out of a signatory nation for any reason; the ban on transfrontier movement is absolute whereas a limited ban will permit the importation and exportation of wastes between contracting parties in limited circumstances, such as where transfers will ensure the environmentally sound management of hazardous waste. Such transfers are subject to the Convention as well as the Municipal Law of the State of import and export, and other bilateral, multilateral, regional and economic and Political integration treaties. See, C. Russell H. Shearer, "A Comparative Analyses of the Basel and Bamoko Convention on Hazardous Wastes", *Environmental Law*, vol.23 (1993), p.147.

a total international ban on waste transfer might also be contrary to the principles of sound environmental management. A UNEP official stated:

> There is nothing wrong with [international transfers of hazardous waste] if the movement and the disposal of the waste are for the benefit of the environment. As developing countries develop, there will be transport of hazardous waste from these countries to industrialized societies for incineration. So, the control of the movement of hazardous waste by international agreement has to take all these changing factors into account.[38]

This position attracted harsh criticism from developing countries as well as environmental NGOs, who saw it as a betrayal of their struggle against illegal traffic and as an active support of the interests of the industrialized world.[39]

Meanwhile, in May 1988, the Council of Ministers of Organization of African Unity (OAU), adopted a resolution which condemned the import of such wastes into the African continent as 'crime against Africa and the

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[38]UNEP: Progress in Hazardous Waste Negotiations, *Environment Policy and Law*, vol.18 (1988), pp.194-95; quoted in Barbara D. Huntoon, "Emerging Controls on Transfers of Hazardous Waste to Developing Countries", *Law and Policy in International Business*, vol.21, no.2 (1989), p.268.

[39]Kummer, n.7, at pp.43-44.

African people'.[40] Following this the OAU member states consolidated their position in the negotiations demanding the incorporation of strong safeguards against waste traffic from developed to developing countries. They also demanded far reaching provisions for financial and technical assistance to developing countries in the field of waste management,[41] which led to the emergence of doubts concerning the feasibility of elaborating an agreed draft for submission of Basel Conference, and concerning the success of Conference itself. At this stage, the Executive Director of UNEP at this stage through informal negotiations of the working Group, broke the impasse and the working Group resumed its work at its fifth session, which immediately preceded the Conference of Plenipotentiaries.

At the Basel Conference, doubts persisted, but finally an agreement on the text of the Convention was arrived at in the early hours of the last day of the

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[40]OAU Council of Ministers Resolution on Dumping of Nuclear and Industrial Waste in Africa, 23 May 1988 (CM/Res.1153 (SLVIII), reprinted in 28 *ILM*, vol.28 (1989), p.567.

[41]UNEP (1989), Proposals and Positions of the African States during the Negotiations on the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the Status of their Incorporation into the Basel Convention (Nairobi, 1989); quoted in Kummer, n.7, p.44.

Conference.[42] Since the Convention was considered too weak the OAU, declared that it was not prepared to sign it and, therefore, agreed to decide on its final position after further deliberations within the framework of OAU. A number of other states, including major industrialized states such as the Federal Republic of Germany, the USA, the UK, and Japan also deferred their decision for signature. This unwillingness to sign the treaty meant that there was considerable danger of the Basel Convention remaining an ineffective declaration of intentions. It also shows 'how precarious the agreed compromise was'.[43] However, subsequent development after the adoption show an increased acceptance of its fundamental concepts by states.

Abrams is of the view that the Basel Convention represents a compromise measure, neither prohibiting the hazardous waste trade *per se*, nor legitimizing exports to countries without the capability to dispose of the wastes in an environmentally sound manner.[44] Peter Obstler has described it as "a compromise treaty that is long on

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[42]Ibid.

[43]Kummer, n.4, p.538.

[44]Abrams, n.28, p.819.

rhetoric and short on substance and effectiveness".[45] Desai views it as a "compromise" between the "conflicting interests" of industrialized nations and developing countries.[46] Whereas Greenpeace has described Basel Convention as "legalizing toxic terrorism worldwide".[47]

IV. *THE BASEL CONVENTION: THE SALIENT FEATURES*

The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal represents new norms, rules and procedures in law governing the movements and disposal of hazardous wastes at international as well as national level. This instrument represents the intention of the international community to solve this environmental problem in a collective manner.

The Basel Convention is composed of twenty-nine articles and six annexes.[48] The first and foremost

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[45]Peter Obstler, "Toward a Working Solution to Global Pollution: Importing CERCLA to Regulate the Export of Hazardous Waste", *Yale Journal of International Law*, vol.16 (1991), p.94.

[46]Desai, n.27, p.49.

[47]Jim Valletta and Heather Spalding (eds.), *The International Trade in Wastes: A Greenpeace Inventory* (hereinafter Greenpeace Inventory) (Washington, D.C., 1990), p.12.

[48]Basel Convention, n.1.

objective of this Convention is to protect developing countries against the uncontrolled dumping of toxic wastes. However, it also seeks to promote environmentally sound and efficient management of hazardous and other wastes and the minimization of waste generation.

(1) *Definition of "wastes" and "hazardous wastes"*

The Basel Convention defines "wastes" as "substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law".[49] Hence disposability of any substance or object is the *sine qua non* to be categorized as waste. The disposal operations covered by this definition are listed in Annex-IV of the Convention.[50] The disposal operations under the Convention are of two kinds. First, disposal operations leading to final disposal such as landfill: incineration on land or at sea; release into the ocean etc.[51] Second, disposal operations as those leading to recycling, resource recovery, reclamation, direct its use or alternative uses.[52] Thus, the provisions of the Basel

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[49]Ibid., Article 2(1).

[50]Ibid., Article 2(4).

[51]Ibid., see Annexure IV-A.

[52]Ibid., see Annexure-IVB.

Convention apply equally to wastes destined for final disposal and those destined for recycling or recovery.

Under the Convention, any wastes belonging to a core category of eighteen "waste streams" or having as constituents any of twenty seven metals or compounds[53] are defined as "hazardous wastes" unless they do not possess any of the hazardous characteristics listed in a separate Annex.[54] States can define additional wastes as hazardous wastes by domestic legislation.[55] This provision provides additional flexibility and information to Secretariat of the Convention, such waste is to be treated as hazardous by other parties.[56]

Wastes collected from households and residues arising from incineration of household wastes are deemed to be categories of waste requiring special consideration[57] and are referred to as "other wastes". The requirements of the Convention apply equally to "hazardous waste" and to "other wastes". Inclusion of

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[53]Ibid., Annex.I.

[54]Ibid., Article 1, para 1(1), Annex.III. The hazardous characteristic listed in Annex.III are explosive, inflammable, spontaneously combustible, oxidizable, poisonous, infectious, corrosive, toxic or ecotoxic.

[55]Ibid., Article para 1(b).

[56]Ibid., Article 3 and Article 6 para (5).

[57]Ibid., Annex.II.

"other wastes" has broadened the scope of Basel Convention, although 'non-hazardous chemical and industrial wastes are still outside the scope of the Convention'.[58]

The Convention excludes all radioactive wastes from its scope,[59] on the ground that they are supposed to be subject to control by the International Atomic Energy Agency. The Convention also excludes the wastes derived from the normal operation of a ship.[60] These wastes are regulated by the International Convention for the Prevention of Pollution from Ships (MARPOL Convention).

The definition of hazardous waste has been subject to much criticism. First, the Basel Convention system of classifying hazardous wastes and hazardous characteristics by reference to technical annexes is considered to be too wide. However, wide definition is of importance to developing countries which did not have a comprehensive definition of hazardous wastes in their national laws. Second, the classification system does not establish minimum values of concentration. This may lead to a system where a quantitatively insignificant hazardous component may be considered a hazardous waste.

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[58]Abrams, n.37, p.820.

[59]The Basel Convention, n.1, Article 1, para.3.

[60]Ibid., Article 1, para.4.

Third, the exclusionary clause excludes radioactive wastes on the ground of it being subject to the control of IAEA. In this context, it may be noted that the General Conference of IAEA in 1990 adopted a Code of Practice on the International Transboundary Movement of Radioactive wastes.[61] But, it only seeks to regulate high radioactive wastes.[62] Thus, low radioactive wastes as well as the wastes from military operations remain unregulated.

(ii) *General Obligations*

Article 4 of the Basel Convention lays down the general obligations for the Parties:

(a) *Minimization of generation and transboundary movement of hazardous wastes*

The Basel Convention recognizes that the most effective way of protecting human health and the environment from the dangers posed by hazardous and other wastes is the reduction of their generation to a minimum in terms of quantity and/or hazard potential.[63] Hence,

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[61]IAEA News Features No.9, December 1990.

[62]Ibid.

[63]Basel Convention, n.26, Preamble.

it obligates the parties to ensure that the generation of hazardous and other wastes is reduced to a minimum.[64] This duty, however, is not absolute: social, technical and economic aspects may be taken into account.[65]

Each party must strive to ensure the availability of adequate disposal facilities within it.[66] The parties must ensure that the transboundary movements of hazardous wastes is reduced to a minimum.[67] The Basel Convention allows the transboundary movements of hazardous wastes only if: *One*, the State of export does not have the technical capacity and the necessary facilities to dispose them in an environmentally sound manner;[68] *Two*, the wastes in question are required as a raw material for recycling or recovery industries in the state of import;[69] *Three*, the transboundary movement is in accordance with additional criteria determined by the Parties. It is necessary that these criteria are in consonance with the objectives of the Convention.[70]

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[64]Ibid., Article 4 para 2 (a).

[65]Ibid.

[66]Ibid., Article 4, para 2(b).

[67]Ibid., Article 4, para 2(d).

[68]Ibid., Article 4, para 9(1).

[69]Ibid., Article 4, para 9(b).

[70]Ibid., Article 4, para 9(1).

The second exception relating to recycling or recovery has become a major hurdle in preventing illegal hazardous waste trade. Many "sham" recycling schemes based on fraudulent misrepresentation of the contents of waste shipment has come to light.[71] Bulska notes in this regard -- 'there is the danger of sham recycling -- wastes moved for final disposal in the guise of a recovery operation'.[72]

(b) *Environmentally Sound Management of Hazardous Wastes*

The Basel Convention imposes upon the parties, the restriction that hazardous wastes subject to transboundary movements are managed in an environmentally sound manner,[73] whatever be the place of their

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[71]For a discussion of "Sham recycling" see UNEP study, *Transfrontier Movements of Hazardous Waste With Regard to developing Countries*, UN Doc.EP/WG.95/2 (1983), at 6.

[72]Iwona Rummel Bulska, "Environmentally sound recovery of hazardous wastes within the framework of the Basel Convention", UNEP, *Industry and Environment*, vol.17 (1994), p.6. The open ended Ad Hoc Committee for the Implementation of the Basel Convention has prepared the Guidance Document on the Transboundary Movement of Hazardous Wastes Destined for Recovery Operations, the third meeting of the Conference of Parties (Geneva, 18-22 September 1995) adopted this document vide decision III/14, UNEP/CHW. 3/35, 28 November 1995.

[73]"Environmentally sound management of hazardous wastes and other wastes" means taking all practicable steps to ensure the hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes. Ibid., Article 2, para.8.

disposal.[74] The Convention sets out similar standards for disposal, whether it is within or outside the jurisdiction of the state of generation. The state of generation cannot transfer the obligation as regards environmentally sound management of hazardous wastes to either to the state of import or the state of transit.[75] Thus, the primary duty to ensure environmentally sound management of hazardous waste is cast upon the generating state. It is the duty of state of export to prohibit the export of hazardous waste if it has 'reason to believe' that the environmentally sound management and disposal would not be guaranteed in the state of import.

The "environmentally sound waste management" standard leaves unclear the critical issue of whether compliance with this requirement is applicable to the exporting country even after the importing country has consented to receiving a shipment of hazardous wastes.[76] It further extends the issue that if after the waste has reached state of disposal, it comes to the knowledge of state of export, that the waste cannot be disposed of in an environmentally sound manner in the

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[74]Ibid., Article 4, para 8.

[75]Ibid., Article 4, para.10.

[76]Ibid., Article 4, para 2(e).

state of import. If the exporting state interferes, it amounts to interference in the sovereign affairs of a state. And if it does not then the improper disposal of the shipment could be interpreted as a violation of the fundamental human right "to an environment adequate for...health and well being".[77]

In addition, what constitutes environmentally sound management varies from country to country. In the absence of any specific criteria, it is also possible that corrupt and short-sighted government officials could consent to receive a shipment of hazardous wastes if the price were high enough".[78]

iii) *Restrictions on Transboundary Movements of Hazardous Wastes*

The Basel Convention recognizes the sovereign right of every state to ban the entry or disposal of foreign hazardous wastes in its territory.[79] The state exercising such right has to inform the Secretariat, which informs the other parties.[80] This action casts a

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[77]Principle 1. Stockholm Declaration, n.7, p.5.

[78]Abrams, n.37, p.829.

[79]Basel Convention, n.26, Preamble.

[80]Ibid., Article 4, para 1(a) and Article 13, para 2(c).

duty upon other states to prohibit the export of hazardous wastes to such states.

The Convention also introduces the concept of "limited ban". It prohibits the parties from trading hazardous wastes with non parties.[81] Kummer points out that the objective of a limited ban is two fold. First, it is designed to prevent party states from engaging in hazardous waste trade with states that, as non parties, do not adhere to the rules and standards established by the Basel Convention. Second, by excluding non-parties from trade with parties, the concept provides an incentive for non parties to accede to the Convention.[82] This concept of limited ban was a compromise solution, arrived at the Basel Conference, between developing states demanding a total ban and industrialized countries calling for regulation of trade. Greenpeace, is highly critical of the "limited ban" and comments that "by providing a legal framework within which to trade waste, the Convention legitimizes a practice that should be considered a criminal activity".[83]

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[81]Ibid., Article 4, para.5.

[82]Kummer, n.6, p.61.

[83]Greenpeace Inventory, n.38, p.15.

However, the concept of limited ban is modified by the Convention itself.It accords parties the right to enter into multilateral, bilateral, or regional agreements or arrangements on transboundary movements of hazardous wastes with other parties, and also with non-parties, provided that such agreement conform to the requirement of environmentally sound management stipulated by the Basel Convention.[84] The Basel Convention mandates absolute prohibition of hazardous waste exports to Antarctica.[85]

In the context of restriction on transboundary movement of hazardous waste, Decision II/12 of the Conference of the Parties (COP), adopted on 25 March 1994, assumes importance. This decision, which is seen as a major achievement by the environmental lobby, prohibits all transboundary movements of hazardous wastes destined for final disposal from Organization of Economic Cooperation and Development (OECD) states to non-OECD states with immediate effect.[86] It also decided to phase out by 31 December 1997, and prohibit as of that date transboundary movement of hazardous waste which are

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[84]Basel Convention, n.26, Article 11.

[85]Ibid., Article 4, para.6.

[86]See Kummer, n.6, Appendix II. For Decision II/12 of the Conference of Parties to the Basel Convention (2nd Meeting, 25 March 1994), and Decision II/12, para.1.

destined for recycling or recovery operations from OECD to non OECD States. The third COP decided to give effect to the above decision of second COP, by inserting new Article 4A in the Convention. It reads:

> 1. Each Party listed in Annex. VII shall prohibit all transboundary movements of hazardous wastes which are destined for operations according to Annex IV A, to States not listed in Annex VII.
>
> 2. Each Party listed in Annex. VII shall phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes under Article 1(i)(a) of the Convention which are destined for operations according to Annex IV B to States not listed in Annex. VII. Such transboundary movement shall not be prohibited unless the wastes in question are characterised as hazardous under the Convention.[87]

This decision has not been welcomed by the recycling industry, both in developed and developing countries. At stake are large number of jobs and huge profits made by waste traders. However, compliance with this decision will require a strong political especially from developing countries and effective monitoring mechanism. Nevertheless it is an important landmark as it furthers the objective of Convention of protecting developing countries from toxic dumping from industrialized countries.

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[87]Annex.VII includes, Parties and other States which are members of OECD, EC, Liechtenstein.

(iv) *The Principle of Prior Informed Consent (PIC)*

The principle of a procedural "Prior Informed Consent" mechanism forms the heart of the Convention. It ensures that hazardous wastes and other wastes are not subject to transboundary movement, unless the state of import and state of transit have consented in writing to the specific waste import based on detailed information provided by the Parties.[88] The Convention through this regulatory mechanism seeks to ensure transparency in the hazardous waste trade. It also helps the importing state to take an "informed and reasoned" decision regarding transboundary movements of hazardous wastes as well as to monitor its status subsequently.[89]

Each party state must designate a "competent authority",[90] responsible for administering the PIC procedure. The Convention obligates the competent authorities of the import and transit states that they

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[88]Ibid., Article 6 and 7. For a detailed list of information to be provided in the notification document, see Ibid., Annex.V A.

[89]Desai, n.19, p.51.

[90]"Competent authority" means one governmental authority designated by a Party to be responsible, within such geographical areas as the Party may think fit, for receiving the notification of a transboundary movement of hazardous wastes or other wastes, and any information related to it, and for responding to such a notification, as provided in Article 6; ibid., Article 2, para.6.

must respond to notifier in writing, consenting to the movement, denying permission, or requesting further information.[91] It is incumbent upon the competent authority of the state of export to not to allow the movement to proceed unless and until it has received the written consent of all competent authorities involved.[92]

(v) *Illegal Traffic and Duty to Re-import*

Transboundary movements of hazardous wastes carried out in contravention of states obligation laid down by the Basel Convention are termed illegal.[93] The Convention declares that illegal traffic in hazardous wastes or other wastes is criminal.[94] It calls upon the parties to take appropriate legal, administrative and other measures to prevent and punish conduct in contravention of the Convention.[95]

The Convention obliges the state of export to accept back hazardous wastes the transfer of which has commenced

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[91]Ibid., Article 6, para 2 and Article 6, para 4.

[92]Ibid., Article 6, para 6.,

[93]Ibid., Article 2, para 21 and Article 9.

[94]Ibid., Article 4, para 3.

[95]Ibid., Article 4, para 4.

in compliance with the provisions of the Convention, but cannot be completed in accordance with the terms of contract between the exporter and disposer.[96]

(vi) *Liability and Compensation*

The issue of "liability and compensation" could not be successfully resolved during Basel negotiation process. The drafters left the issue of liability and compensation in the event of any damage resulting from the transboundary movement of hazardous wastes to be resolved through a Protocol.[97] The absence of any agreement on this crucial issue is a major weakness of the Convention and it has 'deprived the Convention of requisite teeth for international efforts to regulate waste exports'.[98]

The First Conference of Parties (COPI), in order to fulfil the mandate given by the Convention, decided to establish an *Ad hoc Working Group of Legal and Technical Experts*, to consider and develop, a draft protocol on liability and compensation, including an International Fund for compensation for damage resulting from the

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[96]Ibid., Article 8.

[97]Ibid., Article 12.

[98]Desai, n. , p.52.

transboundary movements of hazardous wastes and their disposal.[99]

The *Ad Hoc* Working Group of Legal and Technical Experts, convened in December 1992, has till July 1996, considered the issue in four sessions. It has formulated "Draft Articles of a Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movements of Hazardous Wastes and their Disposal".[100]

The objective of the draft protocol is 'to provide for a comprehensive regime for liability and for adequate and prompt compensation, including reinstatement of the environment, for damage resulting from the transboundary movements of hazardous wastes and other wastes and their disposal'.[101]

The contracting parties to the Basel Convention have not been able to agree upon the crucial questions of "Scope of Application"[102] of the Protocol,

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[99]Decision I/5 of COP I, UNEP. Doc. UNEP/CHW. I/35, 4 December 1992.

[100]For details see, UNEP, Report of the Fourth Session of Ad Hoc Working Group of Legal and Technical Experts to Consider and develop a draft protocol on liability and compensation resulting from transboundary movements of hazardous wastes and their disposal, UNEP/CHW. 1/WG. 1/4/2, 3 July 1996.

[101]Ibid., Article 1.

[102]Ibid., Article 3.

"Liability",[103] and "Forms or Modalities of Compensation".[104]

The adoption of Protocol on liability and compensation is an urgent necessity, as it will one, strengthen the regulatory mechanism of Basel Convention two, deter mismanagement of hazardous wastes both during and after their transboundary movements, and third provide compensation for adverse effects they may have on human health and the environment.

vii) *Mechanisms of Implementation*

The Convention establishes the Conference of Parties with overall policy making powers.[105] It periodically reviews the Convention effectiveness and adopts

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[103]Ibid., Article 4.

[104]Ibid., Article 4. For detailed discussion on "Liability and Compensation" see Sean D. Murphy, "Prospective Liability Regimes for the Transboundary Movement of Hazardous Wastes", *American Journal of International Law*, vol.88, no.1 (1994), pp.24-75.

[105]Ibid., Article 15; The Conference of Parties (COP) has met till date thrice. (OPI met at Piriapolis in Uruguay (December, 1992); COP II met at Geneva (March, 1994); COP III met in Geneva (September, 1995); COP IV is scheduled for September 1997.

amendments to the Convention, and establishes additional institutions.[106]

The Convention also established a Secretariat.[107] The main task of the Secretariat, in the light of the provisions and principles contained in the Basel Convention, and the Decisions adopted by the three Conference of Parties is to work towards:

i. Reducing transboundary movements of hazardous wastes to a minimum consistent with their environmentally sound management;

ii. Collecting and disseminating data on the generation of hazardous wastes, their movements and disposal;

iii. Minimizing the generation of hazardous wastes;

iv. Ensuring environmentally sound management and disposal of hazardous wastes, aiming at national self-sufficiency in this respect, including preparing technical guidelines for this purpose;

v. Providing assistance to Parties, in particular developing countries, in the technical and legal fields covered by the Convention with a view to facilitating the implementation of the Convention;

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[106]Additional bodies set up by the COP include Technical Working Group and the open ended Ad hoc Committee on Implementation and Working Group of Legal Experts to develop a protocol on liability and compensation.

[107]Ibid., Secretariat is established under Article 16. The Secretariat of Basel Convention is located at Geneva, Switzerland.

vi. Preventing and eliminating illegal traffic in hazardous wastes;

vii. Preparing a protocol on liability and compensation, including drafting the elements for a compensation fund and emergency funds.

At the national level, each party is required to establish two pertinent agencies: a 'focal point' responsible for the exchange of information with other parties and the Secretariat, and a 'competent authority' for handling the PIC procedure.[108]

V. *AN EVALUATION OF THE BASEL CONVENTION*

The Basel Convention is a significant step forward in efforts to alleviate the problems posed by transboundary movements of hazardous wastes. Global cooperation to solve the problem having global consequences forms the underlying basis of this Convention. The Convention's fundamental principles of waste ministration, proximity of disposal, environmentally sound management of waste, and 'cradle to grave' monitoring of waste by means of an international control system lays down a firm ground on which a future global waste management regime can be built.

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[108]Ibid., Article 5.

The main criticism against the Convention is that it does not prohibit transboundary movement of hazardous waste. On the contrary it legitimizes it. Greenpeace points out that 'what should be a crime will be now considered a business'.[109] Desai, notes with concern that due to this legitimization of waste trade, 'wittingly or unwittingly, developing countries will suffer the consequences in terms of human health and environment'.[110] But this criticism to a large extent stands diluted with Decision II/12 and reaffirmed by Decision III/1 of Conference of Parties which bans hazardous waste export from OECD to non-OECD countries. However, until and unless there is proper monitoring, both at international and national levels, the unscrupulous traders will continue to barter away the interests of future generations for quick riches. Hence, an enforcement machinery with strict control is needed, at global and national level.

The Prior Information System created by the Basel Convention requires an extensive amount of paperwork and correspondence between governments.[111] Coordinating the

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[109]Greenpeace Inventory, n.38, p.16.

[110]Desai, n.19, p.54.

[111]For each transfer, there must be a written notification to the state of import and to any states of transit, and a written response to the state of export from the state

(continued...)

paper work for each transfer is a tremendous task. The successful application of the PIC system in particular depends on a sophisticated national infrastructure. The Convention does not provide for any substantial financial help to transitional economies of developing countries, which lack basic infrastructure and environmental regulations to develop such a complex system. Moreover, the compliance to Convention's complex system of control, monitoring and exchange of information is not only a problem for developing countries but also for developed countries' point is illustrated by the shipment of eighteen tons of waste containing PCBs from Australia to France on board the vessel *Maria Laura* in September 1992: reportedly, Australia did not obtain the prior consent of France (or that of the transit countries) to this transaction, even though both states had by that time acceded to the Convention.[112]

Though the Convention declares that a contracting party 'shall not permit hazardous wastes or other wastes to be exported to a non-party or to be imported from a

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[111](...continued)

of import and any states of transit. A written contract must accompany the actual transfer. Additionally, a "movement" document which is to contain the signature of any person who takes charge of the wastes must accompany the waste. See the Basel Convention, n.1, Article 11.

[112]See the report in *Environment, Policy and Law*, vol.22, no.5 (1992), p.337; quoted in Kummer, n.6, p.81.

non-party'[113] yet by allowing for bilateral or multilateral treaties for waste trade with contracting parties (under Basel Convention) and non-contracting parties, opens a channel for continuance of this trade.[114] The parties have to only ensure that the disposal takes place in accordance with the principle of "environmentally sound management" of hazardous waste. However, this concept of environmentally sound management is open to wide interpretation, and it may be so that a industrialized country may exert undue influence over a developing country to adopt less stringent rules or definition of environmentally sound management of hazardous wastes. Even five years after entry into force of the Convention, the crucial issue of "liability and compensation" sought to be addressed by a protocol, remain's unresolved.

The Convention permits trade in hazardous waste if it is required as a raw material for recycling or recovery industry in the state of import.[115] This has led to "sham" recycling operations.[116] The exclusion of

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[113]The *Basel Convention*, n.1, Article 4, para.5.

[114]Basel Convention, n.26, Article 4, para.5.

[115]Ibid., Article 4, para.9(b).

[116]In the Indian context this problem is assuming horrendous proportions, as India is increasingly being (continued...)

"radioactive wastes" from definition of hazardous waste under Article 1, on the pretext that it is subject to control by IAEA is meant to protect the North which has mainly the facility and technology to use radioactive materials. By the inclusion of this provision it (the North) has sought to protect even its radioactive waste from international control systems created under the Basel provisions.

The Convention establishes the Secretariat as the key enforcement body.[117] Yet it is not given any substantive supervisory functions. It only provides for coordinating and monitoring functions. This reduces the effectiveness of the Secretariat in PIC procedure. Moreover, secretariat should also be provided with powers to inspect and verify the hazardous waste shipment. This will provide international monitoring and ensure that if a shipment fails to conform to the standards of the Convention, it can be prevented from export. The location of Secretariat at Geneva, far off from the places where the adverse effects of hazardous waste trade take place,

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[116](...continued)

made the target of this trade from the industrialized North. Dangers are that India may become one of the world's biggest dumpyards for poisons which North generates. See Praful Bidwai, "Toxic Waste disposal: Already dumping lot", *The Hindu*, Survey of Environment, 1996, pp.185-92.

[117]Basel Convention, n.26, Article 16.

merely ensures that the bureaucracy it has created lives and enjoy the life of a developed country. Instead, the secretariat should be located in a country which has faced (like Nigeria, or Guinea Bissau, or India), the brunt of trade in hazardous waste. Moreover, the bureaucracy of the Secretariat, in order to strengthen its implementation should not only draw personnel from government of contracting parties, but also from non-governmental organizations instrumental in raising public consciousness on the issue and academicians devoted to understanding the complexities of the issue.

Be that as it may, the Basel Convention is a step in right direction, the need is to further strengthen it and a vigilant public opinion, both at national and international level can ensure this.

VI. *THE BASEL CONVENTION AND AGENDA 21*

Agenda 21 sets out a plan of action which the United Nations Conference on Environment and Development adopted at Rio-de-Janeiro in June 1992.[118] Chapter 20 of Agenda 21 is devoted to the environmentally sound management of hazardous wastes, including prevention of illegal traffic

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[118]Agenda 21, UN Conf A 151/4.

in hazardous wastes.[119] The overall objective is to prevent to the extent possible, and minimize, the generation of hazardous wastes, as well as to manage those wastes in such a way that they do not cause harm to human health and environment.[120] This objective is set within the context of overall life management, and constitutes a part of the cleaner production approach supported by Agenda 21.[121] The Chapter sets out four programme areas.

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[119]The broad goals of this action plan are spelled out at the outset as:

> Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well being. However, integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can -- in a global partnership for sustainable development.

See para 11, Preamble, Agenda 21, UN Conference on Environment and Development, Rio-de Janeiro, 3-14 June 1992.

[120]Agenda 21, para 20.6, p.237.

[121]Ibid., paras 20.6 & 20.7; pp.237-8.

A. Promoting the prevention and minimization of waste.[122]

B. Promoting and strengthening institutional capacities in hazardous waste management.[123]

C. Promoting and strengthening international cooperation in the management of transboundary movement of hazardous wastes.[124]

D. Preventing illegal traffic in hazardous waste.[125]

These programme areas correspond to the aims set out in the Basel Convention. Agenda 21 repeatedly refers to the Basel Convention, calling for action to implement and strengthen the Convention. The Convention Secretariat has been involved in the implementation of some of the aspects of Chapter 20, and will continue to work in this area.[126]

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[122]Ibid., paras 20.9 to 20.20; pp.239-44.

[123]Ibid., paras 20.21 to 20.32; pp.244-50.

[124]Ibid., paras.20.33 to 20.39, pp.250-13.

[125]Ibid., paras 20.40 to 20.47; pp.253-54.

[126]See the Report of the Secretariat on its role in the implementation of Basel Convention (Doc. UNEP/CHW.2/28), December 1993; also COP Decisions I/23 and II/21.

CONCLUSION

The development of a global regime, still in infancy, to regulate the transboundary movement of hazardous waste, formed the basis of discussion in this Chapter. Regional efforts to regulate international trade in hazardous waste, preceded and formed the basis for development of this global regime. These regional treaties are the subject of discussion in the next chapter.

CHAPTER III

Chapter III

REGIONAL MULTILATERAL AGREEMENTS

I. *INTRODUCTION*

The global treaty -- Basel Convention permits under Article 11 to the contracting parties that they may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movements of hazardous wastes with parties or non-parties provided such agreements follow the principles of environmentally sound management of hazardous wastes as laid down by the Basel Convention. In addition they must also take into account the interests of developing countries.

The Bamako Convention of Organization of African Unity (OAU), Article 39 of Lome IV Convention between European Union (EU) and African, Caribbean and Pacific (ACP) states, the Central American agreement, the Organization for Economic Cooperation and Development (OECD) and European Union's (EU) hazardous waste management system forms the basis of discussion of this Chapter.

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II. *THE BAMAKO CONVENTION*

(1) *The Background*

During the decade of 80s, the issue of transboundary movements of hazardous wastes from industrialized to developing countries assumed great significance and became a highly sensitive political issue. It was being increasingly regarded by developing countries as a form of neo-colonialist expansion to be avoided regardless of any possible financial benefit to the country.[1]

Owing to the inherent dangers to human health and environment, the international trade in hazardous waste caused deep resentment and widespread anger in the entire continent of Africa. It also came under vehement criticism from African leaders and the Organization of African Unity (OAU). President Daniel Arap Moi of Kenya declared it to be "garbage imperialism".[2] President Ibrahim Babingda of Nigeria proclaimed vociferously:

> No government, no matter the financial inducement, has the right to mortgage the

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[1]United Nations Environment Programme, *Transfrontier Movements of Hazardous Wastes with Regard to Developing Countries*, UN Doc. EP/WG.95/2 (1983); p.11.

[2]Quoted in C. Russell H. Shearer, "Comparative Analysis of the Basel and Bamako Conventions on Hazardous Wastes, *Environment Law*, vol.23, no.1 (1993), p.160.

destiny of future generations of African children.[3]

The OAU considered trade in hazardous waste as "toxic terrorism".[4] Morifang Kang, Mali's Minister of Environment regarded it as a "morally reprehensive and criminal act",[5] In fact the OAU declared it to be a "crime against Africa and the African people".[6]

The seeds of the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa,[7] 29 January 1991, were sown at the Basel Conference (19-22 March, 1989), where the member states of the OAU felt that the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal,[8] failed to adequately address the concerns of

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[3]Harry Anderson and Others, "The Global Poison Trade", *Newsweek*, vol.CXII, no.19 (7 November, 1988), p.10.

[4]UNEP, n.3.

[5]Ibid.

[6]OAU Council of Ministers Resolution on Dumping of Nuclear and Industrial Waste in Africa, 23 May 1988 (CM/Res.1153 (XLVIII), reprinted in *International Legal Materials* (ILM), vol.28 (1989), p.567.

[7]Hereinafter Bamako Convention, reprinted in *International Legal Materials*, vol.30 (1991), p.773.

[8]See, UN Doc.EP/IG.80/3 (1989). Reprinted in *International Legal Materials*, vol.28 (1989), p.657 (hereinafter Basel Convention).

developing countries. The OAU was demanding a total ban on the exportation of hazardous waste, whereas the Basel Convention only provided for a limited ban. Consequently, the OAU directed its members to forestall the signing of the Basel Convention. Later, the OAU resolved to elaborate a regional African Convention on hazardous wastes which would address the continent's common concern.[9] The two main aims of the proposed convention were determined as, firstly, a common commitment by African states to prohibit the import of hazardous wastes into the continent, and secondly, the establishment of a regime for the management of hazardous waste generated within Africa.[10]

The Bamako Convention was adopted by the Pan-African Conference on Environment and Sustainable Development in Bamako (Mali) on 29 January 1991. Twenty five African states have signed the Convention. It is open for ratification or accession to all OAU member states,[11] and will enter into force on the 90th day

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[9]OAU Council of Ministers Resolution CM/Res.1199 (XLIX), February 1989; CM/Res (1225) (L), July 1989; See, Katharina Kummer, *International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules* (New York, 1995), p.99.

[10]OAU Council of Ministers Resolution on Control of Transboundary Movements of Hazardous Wastes and their Disposal in Africa, July 1989 (CM/Res (1225) (L) July 1989. See, Kummer, n.10, p.100.

[11]Bamako Convention, n.8, Article 22.

after the deposit of the tenth instrument of ratification.[12] As of November 1994, eight states have ratified the Convention.[13]

(2) *The salient features*

Although the Bamako Convention heavily relies for its substantive provisions on the Basel Convention. Yet, in certain respects it differs from the latter. These difference have made it stricter and broader in scope.

(a) *Definition of Hazardous Waste*

The Bamako Convention adopts the Basel system of defining hazardous wastes by a set of annexes listing categories of wastes and hazardous categories.[14] However, the Bamako Convention provides that a waste either listed in Annex I or having one of the characteristics listed in Annex II is considered hazardous.[15] This broadens the scope of the definition of hazardous waste in comparison to that in Basel Convention, under which the characteristics listed in two

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[12]Ibid., Article 25.

[13]See, Kummer, n.10, fn.34, p.100.

[14]The Basel Convention, n.9, Article 1.

[15]The Bamako Convention, n.8, Article 2.

relevant annexes are cumulative requirements for the designation of a waste as hazardous. Moreover, the Bamako Convention extends the definition of hazardous wastes to radioactive wastes subject to international control systems,[16] and to all hazardous substances (whether or not defined as wastes) that have been banned in the country of manufacture.[17]

(b) *Hazardous Waste Import Ban*

The Bamako Convention requires parties to prohibit the import, for any reason, of all hazardous and radioactive wastes from non contracting parties.[18] As only the OAU member states may become parties to the Convention,[19] in effect this provision amounts to a ban on imports of hazardous wastes generated outside the African continent. Under the Convention such import is declared to be "illegal and criminal act".[20] It may be noted in here that the Basel Convention allowed, prior to the ban imposed at the Third COP in September 1995, the

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[16]Ibid., Article 2, para.2.

[17]Ibid., Article 2, para 1(d).

[18]Ibid., Article 4, para.1.

[19]Ibid., Article 21 and Article 22.

[20]Ibid., Article 1.

transboundary movement of hazardous wastes if it is 'required as a raw material for recycling or recovery industries in the state of import',[21] whereas the Bamako Convention prohibits the import of hazardous waste 'for any reason' into the continent of Africa. This does away with the distinction between recyclable and non-recyclable hazardous wastes and ensures strict control.

(c) *Ban on dumping of hazardous wastes at sea and internal waters*

The Bamako Convention bans dumping of hazardous wastes at Sea and Internal Waters.[22] Dumping includes incineration at sea. Further any dumping at sea, as well as seabed, sub seabed, internal waters, territorial seas, exclusive economic zones or high seas is deemed to be illegal. The Basel Convention lacks any such provision which addresses the need for the protection of 'common heritage of mankind', except Antarctica, which the Bamako Convention also does.

(d) *The Adoption of Precautionary Measures*

The Bamako Convention adopts the 'preventive, precautionary approach" to pollution problems and

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[21]Basel Convention, n.9, Article 9(b).

[22]Ibid., Article 4, para.2.

explicitly rejects the less stringent "permissible emissions approach".[23] In fact, Article 4, para 3(f) of Bamako Convention explicitly lays down:

> Each Party shall strive to adopt and implement the preventive, precautionary approach to pollution problems, which entails, *inter alia* preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding harm. The parties shall cooperate with each other in taking the appropriate measures to implement the precautionary principle to pollution prevention through the application of clean production methods, rather than the pursuit of a permissible emissions approach based on assimilative capacity assumptions.

Alexandre Kiss points out that this provision includes two concepts that are new to international treaty law:

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[23]The preventative precautionary approach prohibits the release of potentially harmful substances even without scientific evidence of harm, whereas the permissible emission standards allows the release of any toxic waste until its designated threshold is reached. The "permissible emission approach" is based on the concept that the environment can effectively absorb toxins up to a threshold, above which the environment can no longer assimilate the toxins. Under this approach, a threshold level is determined, and polluters are allowed to pollute as much as they want until the threshold is reached. This approach establishes a significantly less stringent standard than the "preventative precautionary approach", which maintains that no amount of pollution is acceptable. See, Hugh J. Marbury, "Hazardous Waste Exportation: The Global Manifestation of Environmental Racism", *Vanderbilt Journal of International Law*, vol.28 (1995), p.272, fn.153.

The precautionary principle and the idea that scientific proof is not necessary to take preventive measures".[24]

Kiss views proclamation of principle that "regulatory measures can be taken without waiting for scientific proof" is an important step forward.[25]

(c) *Strict Liability*

Another important feature of the Bamako Convention is that it imposes strict, unlimited, as well as joint and several liability on hazardous waste generators.[26] This provision is so drafted that the generator is left with no permissible legal defense for his activity resulting into pollution. On the contrary, the Basel Convention is silent on this important issue of liability fixation.

(f) *Creation of Dump Watch*

A novel feature of the Bamako Convention is the provision for appointment of a national body to act as

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[24]Alexander Kiss, "The International Control of Transboundary Movement of Hazardous Waste", *Texas International Law Journal*, vol.26 (1991), p.534.

[25]Ibid.

[26]The Bamako Convention, n.8, Article 4, para 3(b).

"Dumpwatch",[27] in addition to "competent authorities" and "focal point". This body is assigned with the duty of coordinating with concerned governmental and non-governmental organizations. In this regard, it may be noted that the Basel Convention has provision for no such body. Moreover, the "competent authorities" and "focal point" under the Basel provisions have no provisions concerning coordination with relevant non-governmental organizations and governmental bodies, although NGOs have played an important role in raising public consciousness on the harms of hazardous waste trade.

3. *Relationship of Bamako Convention with Basel Convention*

The Basel Convention generally permits parties to enter into bilateral, regional and multilateral agreement. The Bamako Convention, in its preamble, takes into account that the 1989 Basel Convention allows for the establishment of regional agreements which may be equal to or stronger than its own provisions.[28] The Bamako Convention, hence is in the spirit of global treaty and as Shearer has rightly pointed out in this regard:

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[27]Ibid., Article 5.

[28]Ibid., Preamble.

> The Basel and Bamako Convention are not mutually exclusive, and serve to further the interests of parties. In that regard, the Bamako Convention should not be viewed as forestalling the implementation of the Basel Convention or adversely affecting a global effort to control the transfer of hazardous waste, but as complementing the development of a new world environmental order.[29]

4. *Evaluation*

Although the Bamako Convention, in absence of entry into force, remains a hortatory declaration, yet by its strict provision it seeks to totally ban the international trade in hazardous waste in the continent of Africa. Marbury has aptly remarked that through the Bamako Convention "the OAU appears to have made the conscious decision to protect its nations from hazardous wastes even at the expense of diminished industrial development".[30]

Desai finds that the Bamako Convention has set "extremely high standards for the prevention of pollution".[31] Kummer is of the view that the Bamako

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[29]Shearer, n.2, p.162.

[30]Hugh J. Marbury, Hazardous Waste Exportation: The Global Manifestation of Environmental Racism, *Vanderbilt Journal of Transnational Law*, vol.28, no.2 (1995), p.273.

[31]Bharat Desai, "Regulating Transboundary Movement of Hazardous Wastes", *Indian Journal of International Law*, vol.37, no.1 (1977), p.58.

Convention "provides a highly detailed and ambitious regime, incorporating a number of innovative and potentially effective concepts".[32]

III. *THE LOME IV CONVENTION*

In December 1989, the European Community (EC), now the European Union (EU), and its member states, and the sixty nine African, Caribbean and Pacific (ACP) states,[33] concluded the Fourth Convention of Lome.[34] Unlike its predecessors, Lome IV devotes a chapter to environmental protection. Article 39 deals specifically with the issue of transboundary movement of hazardous wastes. Paragraph 1 of this provision obliges the contracting parties "to make every effort to ensure that international movement of hazardous waste and radioactive waste are generally controlled". It bans all hazardous waste exports from EC states to ACP states[35] and prohibits ACP states from accepting

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[32]Kummer, n.11, p.104.

[33]The ACP states are the sixty nine former European colonies in Africa, the Caribbean and the Pacific.

[34]Adopted at Lome (Togo) on 15 December 1989, reprinted in *International Legal Materials*, vol.29 (1990), p.783.

[35]Ibid., Article 39(1).

hazardous waste imports from other nations.[36] However, Article 39 does not create any institutional "competent authorities", "focal point" and "dump wastes" as has been done by the Basel and Bamako Convention, to monitor the trade in hazardous waste.

Article 39 of Lome IV is the first binding agreement between developed and developing countries prohibiting North-South traffic in hazardous and radioactive wastes. It is in consonance with the Bamako Convention, as well as Decision II/12 as well as Decision III/1 of the Second and Third meetings respectively of the Conference of Parties to the Basel Convention.[37]

Abrams had described the ban as "the most sweeping international ban on the hazardous waste trade to date".[38] While Kummer notes that "the Lome IV provision went beyond (Basel) that treaty with respect to the

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[36]Ibid.

[37]Decision II/12 of the Second Conference of Parties (COP) to the Basel Convention bans hazardous waste export from OECD to non-OECD countries. Decision III/1 of the Third COP decided to insert new Article 4A in the Basel Convention to this effect. See UNEP/CHW.3/35, 28 November 1995.

[38]David J. Abrams, "Regulating the International Hazardous Waste Trade: A Proposed Global Solution", *Columbia Journal of Transnational Law*, vol.28 (1990), p.840.

"scope of wastes it covers and the stringency of the measures it imposes".[39]

IV. *THE CENTRAL AMERICAN REGIONAL AGREEMENT ON TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES*

The Central American Regional Agreement on Transboundary Movement of Hazardous Wastes was concluded in December 1991.[40] It prohibits import of hazardous wastes from non-contracting parties and prohibits the dumping of hazardous wastes in the marine area of the region. It obliges the parties to take necessary measures to prevent and punish contravention of these provisions.

The Bamako Convention, the Lome IV Convention and the Central American agreement all show the concern of developing countries to protect their environment from the pollution of hazardous wastes.

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[39]Kummer, n.10, p.110.

[40]Reprinted in UNEP/CHW/C.1/INF. 2 October 1993. The Contracting Parties are Costa Rica, El Salvador, Guatemala, Nicaragua and Panama.

V. *THE HAZARDOUS WASTE MANAGEMENT SYSTEM OF THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT*

The earliest concerns on the harmful effects of hazardous wastes were expressed by the Organization for Economic Cooperation and Development (OECD). The obvious reason has been that industrialized countries of the OECD produce nearly all the hazardous waste generated globally. Moreover, the trade in toxic waste within themselves exposed their environment and population to the adverse effects of the unsafe disposal of hazardous waste.

The OECD Council adopted in 1984 a Decision/ Recommendation that outlined the fundamental principles in this field.[41] This decision imposes a binding obligation on OECD member states to control transfrontier movement of hazardous wastes, and recommends a set of principles to be applied by states in implementing this requirement. This recommendation requires member states to ensure the environmentally sound management of

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[41]OECD, Council Decision and Recommendation on Transfrontier Movements of Hazardous Wastes, 1 February 1984 (C(83) 180 (final), reprinted in *International Legal Materials*, vol.23 (1984), p.213. For a discussion see P. Dupuy, International Law Measures to Implement the Principles in the OECD decision on Transfrontier Movement of Hazardous Waste, in Transfrontier Movements of Hazardous Wastes: Legal and Institutional Aspects, OECD Study 82 (1985), p.39.

hazardous wastes within their borders.[42] It imposes concrete duties on the waste generator to ensure environmentally sound disposal of wastes.[43] It calls upon the countries to authorize and make transfrontier shipments only in accordance with the applicable laws and regulation of the importing country.[44] It also obligates the states of export to reimport waste if arrangement for safe disposal fail.[45] An important feature of 1984 OECD decision was that it introduced the concept of "cradle to grave monitoring" of hazardous waste.[46]

The second step in the OECD hazardous waste management measures was the 1986 Decision/Recommendation, elaborated on the basis of awareness of the problems resulting from the OECD area to third countries, especially those with less strict control systems.[47] This decision provides for prior notification and consent, and prohibits exports unless they are

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[42]Ibid., p.215.

[43]Ibid.

[44]Ibid., p.216.

[45]Ibid., pp.216-17.

[46]Ibid.

[47]OECD, Council Decision on Exports of Hazardous Wastes from the OECD Area, 5 June 1986, OECD Doc. C(86) 64, reprinted in *International Legal Materials*, vol.25 (1986), p.1010.

directed to an appropriate disposal facility.[48] In 1988, the OECD compiled a core list of wastes that should be controlled in transfrontier movements.[49]

In early 1989, when the UNEP sponsored work on the Basel Convention was nearing its completion, the OECD Council decided to suspend the elaboration of the draft operation, pending the outcome of that work.[50] Later this decision was confirmed after the adoption of the Basel Convention.[51]

Since the Basel Convention earlier permitted for export of hazardous waste for recycling purposes, the OECD started work in the post-Basel phase on this issue. A 1992 decision establishes a 'three tier system' consisting of three lists -- 'green', 'amber' and 'red'. Wastes are included in these lists on the basis of their

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[48]Ibid., p.1014.

[49]OECD, Council Decision on Transfrontier Movements of Hazardous Wastes, 27 May 1988, OECD Doc. C(88) 90, reprinted in *International Legal Materials*, vol.28 (1989), p.257.

[50]OECD Council Resolution on Control of Transfrontier Movements of Hazardous Wastes, 30 January 1989 (C(89)1 (final). See, Kummer, n.10, p.161.

[51]OECD Resolution on Control of Transfrontier Movements of Hazardous Wastes, 18-20 July 1989, (C(89) 112 (final), See, ibid., p.160.

nature and hazard potential. Each of these three lists are subject to different control systems.[52]

The waste management policy of OECD is of major significance as it provides a framework for the world's industrialized countries which account for nearly the total of hazardous waste generation. In this context Decision II/12 and Decision III/1 of the Conference of Parties to the Basel Convention are important as they create a two world system[53] which allows hazardous waste traffic only between OECD states on the one hand and non-OECD states on the other.

VI. *THE HAZARDOUS WASTE LEGISLATION OF THE EUROPEAN UNION*

The hazardous waste legislation of the European Union (EU) is generally inspired by the efforts of OECD countries.[54] In 1991, the two main directives dealing with the issue were amended in accordance with newly

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[52]OECD Council Decision Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations, 30 March 1992, (C(92) 39 (final). See, Kummer, n.10, p.161.

[53]Kummer, n.10, Appendix VIII; pp.400-20.

[54]Alexander Kiss, n.25, p.531.

evolving policies and priorities.[55] A 1993 Regulation on transboundary movement within the EU, and between the EU and third states sets out a highly detailed and sophisticated regime.[56]

The 1993 regulation sets out detailed rules for practically every conceivable case of transfrontier waste movement, both within the EU and third states, distinguishing between wastes subject to recycling and those subject to final disposal. It adopts the OECD's three tier system. It also creates a Prior Informed Consent system. The EU system is compatible with Basel Convention, and is also in conformity with the Spirit of Article 39 of Lome IV Convention.

VI. *CONCLUSION*

Various regional agreements regulating the trans-boundary movement of hazardous wastes, given momentum to the crusade against global commerce in poison. These regional agreements also provide a concrete foundation on which other regional organizations can proceed to evolve

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[55]European Council Directive 91/156/EEC amending the 1975 Directive on Waste, OJ No.L 78/31 (March 1991); Council Directive, 91/689/EEC on hazardous waste OJ No.L377/21 (December 1991).

[56]European Council Regulation 259/93 on the Supervision and Control of Shipments of Waste within into and out of the European Community, OJ No.L 30/1 February 1993.

their own regulatory mechanisms to regulate international trade in hazardous wastes.

Chapter IV

Chapter IV
CONCLUSIONS

The problem of hazardous wastes can best be solved by reducing the generation of hazardous wastes. The Basel Convention, the relevant Regional Multilateral Agreements and Agenda-21 recognize this solution. This solution requires cutting down on the consumption of goods, production of which results in generation of hazardous wastes. It requires a threefold strategy: (i) Persuading industry to cut down the production of goods resulting in generation of hazardous wastes; (ii) enlightening public opinion to do away with the consumption of such goods and third, finding environment friendly solutions. However, in the present day consumer oriented society these measures seem to be a long cherished goal as "use and throw" is the *mantra* of present generation.

The Basel Convention's fundamental principles of waste minimization, proximity of disposal, environmentally sound management of hazardous wastes and 'cradle to grave' monitoring of hazardous by means of an international control system have provided a firm foundation for the emerging global hazardous waste management regime. However, these principles sound good in theory but in implementation practical problems crop up. For this reason; means of increasing the effectiveness of both global and regional conventions,

whether through enhanced monitoring and verification, more systematic funding, or better use of international institutions, should be pursued. To further this end, the Secretariat of the Basel Convention should be given more powers. The entire international trade in hazardous wastes must be brought within the purview of the Secretariat. It should also be given the powers to "veto" any agreement to transfer hazardous waste, if in the opinion of the Secretariat it will not be disposed of in an environmentally sound manner in the state of import.

The illegal transfers in hazardous wastes can only be effectively dealt with the close cooperation of Customs officials. Generally, Customs officials do not have the expertise, time or resources to check even a small proportion of waste imports. Therefore, in order to achieve the goals of the Basel Convention, first, specialized training in hazardous waste detection need to be imparted to Customs officials and second, adequate facilities must be made available for testing, sampling and analysis at ports. The developing countries must remain vigilant and ensure that they are not made subject to waste transfers in the garb of useful production. In this regard, there is a need for close cooperation between the Secretariat, the national competent authorities and customs authorities. The need for such close cooperations further enhanced by the decision of

conference of Parties to ban the movement of hazardous wastes from OECD to non-OECD countries. Implementation of this decision will require strong political will as large number of jobs in the secondary metallurgical industry using metallic wastes are at stake. As, it involves huge financial benefits for traders, they may resort to illegal measures to hoodwink the ban.

The Basel Convention, in absence of "liability and compensation" provision is weak. Parties must ensure that consensus is arrived at, as the deterrent effect of liability may prevent excessive illegal transfers. Moreover, there is a need to incorporate the principles of absolute liability in the fixation of liability, as the human health and environment require the greatest protection.

The regional agreements complement and supplement the efforts of the global treaty, as the monitoring and compliance can be more easily and effectively dealt with at the regional level. Therefore, other regional organizations should also consider adopting similar conventions. Moreover, in the wake of growing media reports about South Asia becoming target of waste traders, it becomes necessary that the countries of SAARC region adopt a South Asian Association for Regional

Cooperation regional Convention to nip the problem in the bud.

To sum up, hazardous wastes are required to be regulated not only because they pose threat to human health and environment but also it constitutes exporting the risks to future generations. Global cooperation is the key to solve this problem having global consequences.

Sincerely efforts will need to be made by the industrialized countries to see that economic interests do not override risk to the health and environment in exporting hazardous wastes. International Community shall have to make concerted efforts to realize the prohibition on transfrontier movements of hazardous wastes in immediate future.

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