

PREVENTION OF POLLUTION OF THE SEA
BY TRANSBOUNDARY MOVEMENTS
OF HAZARDOUS WASTES
AND THEIR DISPOSALS
A MALTESE / MEDITERRANEAN PERSPECTIVE

A THESIS

BY

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“It is a grave abuse and an offence against the solidarity of humanity when industrial enterprises of rich countries profit from the weak economies and legislation of poorer countries by exporting dirty technologies and wastes which degrade the environment and the health of the population.”

Pope John Paul II, October 22, 1993

ABSTRACT

Chapter one of the Thesis is an introduction to environmental awareness, including the EEC contribution and the necessity of a global approach to curb and control pollutants and pollution of the environment.

The various problems associated with pollution, the use and misuse of chemicals, the importance of correct disposal of hazardous wastes, a Mediterranean perspective, and various instances of measures taken by particular States to control the transboundary movement of hazardous wastes are referred to in chapter two

In Chapter three, various cases of illegal dumping are referred to in order to clarify the extent of the problem of transboundary movements of hazardous wastes and other wastes. The cases referred to clearly indicate the rogue companies and States involved in illegal transboundary movements and dumping of hazardous wastes and contaminated materials and the problems associated with the safe disposal and return of hazardous and other wastes to the exporting or generator State or States.

The Basel Convention is examined in detail in chapter four, where some of the developments leading to its adoption are also referred to in order to better understand the urgency and the requirements that were for a convention to deal with the transboundary movement of hazardous wastes and other wastes.

An analysis of the Basel Convention is carried out in chapter five in order to examine its deficiencies. Furthermore, reference is made to other relevant conventions dealing with or related to the subject of the transboundary movement of hazardous wastes and other wastes on a comparative analysis and the situation in Malta as regards the treatment of hazardous wastes and other wastes.

It is concluded that although the Basel Convention has many deficiencies, it was the first international convention to deal specifically with the subject of the

transboundary movement of hazardous wastes and other wastes and, as such, deficiencies in its provisions could not be avoided. However, it has to be appreciated that enormous difficulties were encountered during negotiations since there were conflicting interests between diametrically opposed negotiators, but it can be considered as a first step that led to the appreciation of the dangers involved in the transboundary movement of hazardous wastes and other wastes and left the option for the development of amendments and/or further instruments to be adopted.

Dedicated to my Family

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INTERNATIONAL LEGISLATION

Australia	Hazardous Wastes Act 1996
Croatia	Unlawful Trafficking in Explosive and Flammable Materials Act; Illegal Import of Dangerous Materials Act; Illegal Acquiring and Handling of Nuclear Materials Act; Endangering of Security with Nuclear Materials Act; Destruction of Plantations by the Use of Dangerous Materials Act; Endangering of Life and Property by Dangerous Acts or Means Act; Handling of Dangerous Goods Act; Pollution of the Human Environment Act; Dangerous and Toxic Wastes Act
EEC	Directive 67/548/EEC OJ L196/1 1967 Directive 88/379/EEC OJ L187/14 1988 Directive 90/219/EEC OJ L117 1990 Directive 90/220/EEC OJ L117 1990 Directive 90/492/EEC OJ L275/35 1990 Directive 90/660/EEC OJ L353 1990 Decision 90/160/EEC OJ L090 1990 Directive 91/156/EEC OJ L78 1991 Directive 91/414/EEC OJ L230/1 1991 Directive 92/3 EURATOM OJ L 35 1992 Directive 92/32/EEC OJ L154/1 1992 Directive 92/37/EEC OJ L154/30 1992 Directive 92/43/EEC OJ L206/7 1992 Regulation 2455/92 OJ L251 192 Directive 93/67/EEC OJ L 227/9 1993 Regulation 259/93/EEC OJ L30 1993 Regulation 1836/96/EEC OJ L168 1993
USA	Federal Insecticide, Fungicide, and Rodenticide Act Toxic Substances Control Act Hazardous Substances Act Occupational Safety and Health Act Emergency Planning and Community Right-to-Know Act Hazardous Materials Transportation Act Clean Water Act Safe Drinking Water Act Resource Conservation and Recovery Act Land Disposal Restrictions Act Comprehensive Environmental Response, Compensation, and Liability Act

MALTESE LEGISLATION

CHAPTER 25

PETROLEUM (IMPORTATION, STORAGE AND SALE) ORDINANCE

To regulate the importation, storage and hawking of petroleum and other similar substances.

(1st April, 1889) *

Enacted by ORDINANCE IX of 1889, as amended by Ordinances: VIII of 1897 and XXIX of 1934; Emergency Ordinance XIV of 1958; Ordinances: XVI of 1960 and XXV of 1962; Legal Notice 4 of 1963; Acts: IX of 1971, LVIII of 1974, XI and XVI of 1977, IX of 1982, XIII of 1983 and XVII of 1991.

CHAPTER 138

FISH INDUSTRY ACT

To provide for regulating the catching, landing and sale of fish, and for purposes connected therewith.

(27th July, 1953) *

Enacted by ACT XII of 1953, as amended by Ordinances: XVII of 1961, XXV of 1962; Legal Notices: 4 of 1963, 46 of 1965; Acts: XXXI of 1979 and XIII of 1983.

CHAPTER 140

CARRIAGE OF GOODS BY SEA ACT

To make provision in respect of the Carriage of Goods by Sea.

(17th December, 1954) *

Enacted by ACT XI of 1954 as amended by Acts XI of 1973 and XIII of 1983.

CHAPTER 156

PETROLEUM (PRODUCTION) ACT

To vest in the Government of Malta the property in petroleum and natural gas within Malta and to make provision with respect to the searching and boring for and getting of petroleum and natural gas, and for purposes connected with the matters aforesaid.

(8th March, 1958) *

Enacted by ACT IV of 1958, as amended by Emergency Ordinance VI of 1958; Ordinances: VI of 1959, XXV of 1962; Act XV of 1965; Legal Notice 46 of 1965; Acts: XXXV of 1966, XX of 1969, LVIII of 1974 and XIII of 1983.

CHAPTER 192

PESTICIDES (CONTROL OF IMPORTATION, SALE AND USE) ACT

To provide for the control of pesticides and for other purposes connected therewith or incidental thereto.

(14th January, 1966) *

Enacted by ACT III of 1966, as amended by Act XIII of 1983.

CHAPTER 194

CONTINENTAL SHELF ACT

To make provision as to the exploration and exploitation of the continental shelf and for matters connected with those purposes.

(29th July, 1966) *

Enacted by ACT XXXV of 1966, as amended by Act XIII of 1983.

CHAPTER 200
CLEAN AIR ACT

To make provision for abating the pollution of the air.

(21st March, 1968) * (15th April, 1969) †

Enacted by ACT XVIII of 1967 as amended by Legal Notice 148 of 1975; and Acts: XI of 1977, XIII of 1983 and VIII of 1990.

CHAPTER 225
QUALITY CONTROL (EXPORTS, IMPORTS AND LOCAL GOODS) ACT

Amended by: XIX.1996.10.

To empower the Malta Standardisation Authority to set obligatory minimum quality standards in respect of all types of goods and obligatory codes of practice for industrial and commercial activities, and to make provision for other matters incidental and ancillary thereto.

(13th April, 1971) *

Enacted by ACT XIII of 1971, as amended by Acts: XI of 1977, XIII of 1983, VIII of 1990 and XIX of 1996.

CHAPTER 231
FOOD, DRUGS AND DRINKING WATER ACT

To provide for the hygienic and other control of food, drugs and drinking water.

(29th September, 1972) * (1st May, 1978) †

Enacted by ACT XL of 1972, as amended by Acts: XI of 1977, XIII of 1978, I of 1979, XIII of 1983, X of 1986, VIII of 1990 and XIX of 1996.

CHAPTER 234
MERCHANT SHIPPING ACT

An Act to regulate merchant shipping.

(6th April, 1973; 1st June, 1973; 13th August, 1974; 16th December, 1974; 8th November, 1986) *

Enacted by ACT XI of 1973, as amended by Legal Notice No. 148 of 1975 and Acts: XI of 1977, XXXI of 1981, XIII of 1983, XXIV of 1986 and XXXVII of 1988; Legal Notices Nos. 37 of 1989 and 152 of 1989; Acts VIII and XXXVII of 1990, and XVII of 1991; Legal Notices Nos. 86 of 1993 and 125 of 1995; and Act XXIV of 1995.

CHAPTER 271
MARINE POLLUTION (PREVENTION AND CONTROL) ACT

To prevent and control the pollution of the sea and other waters and to give effect to the provisions of international and regional conventions and protocols relating to the protection of the marine environment.

() * *Enacted by ACT XII of 1977, as amended by Acts: XIII of 1983, XVII of 1991 and XXIV of 1995.*

CHAPTER 283
CARRIAGE OF GOODS BY SEA (REGULATION) ACT

To regulate the carriage of goods by sea to and from Malta.

(29th January, 1980) *

Enacted by ACT II of 1980, as amended by Acts: XIII of 1983 and XVII of 1991.

CHAPTER 314

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA (RATIFICATION) ACT

To ratify the International Convention for the Safety of Life at Sea.

(18th July, 1986) *

Enacted by ACT XXV of 1986.

CHAPTER 323

FILFLA NATURE RESERVE ACT

To provide for the establishment of the Filfla Natural Reserve.

(1st June, 1988) *

Enacted by ACT XV of 1988.

CHAPTER 348

ENVIRONMENT PROTECTION ACT

To protect the Environment.

(25th March, 1991) (4th January, 1994) (19th December, 1997) (27th February, 1998) *

Enacted by ACT V of 1991.

CHAPTER 351

OIL POLLUTION (LIABILITY AND COMPENSATION) ACT

To provide for Malta's accession to the 1969 International Convention on Civil Liability for Oil Pollution Damage and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, and for the implementation of the provisions of these Conventions.

(9th September, 1991) (26th December, 1991) *

Enacted by ACT XV of 1991 as amended by Act XXIV of 1995.

CHAPTER 352

MALTA MARITIME AUTHORITY ACT

To provide for the establishment of a body corporate to be known as the Malta Maritime Authority for the transfer to that Authority of the powers vested by law in the Director of Ports, and for the exercise and performance by or on behalf of such Authority, of functions relating to ports and merchant shipping in Malta; to provide for the transfer to the said Authority of certain assets; and to make provision in respect of matters ancillary thereto or connected therewith.

(2nd August, 1991) (1st January, 1992) (1st May, 1993) *

Enacted by ACT XVII of 1991 as amended by Acts: XV and XXIV of 1995, XIV and XVI of 1997; and Legal Notice 141 of 1998.

CHAPTER 362

LAW OF THE SEA (RATIFICATION) ACT

To authorise the ratification of the United Nations Convention on the Law of the Sea.

(14th May, 1993) *

Enacted by ACT XII of 1993.

CHAPTER 381

BUNKERING (FUELS) TAX ACT

To regulate the issuing of licences to bunker operators and to levy a tax on fuels supplied for bunkering.

(28th April, 1995) *

Enacted by ACT VIII of 1995.

CHAPTER 392

RATIFICATION OF CHEMICAL WEAPONS CONVENTION ACT

To authorise the Government to ratify the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, to provide for the implementation by Malta of its provisions and for Malta's membership of the Organisation for the Prohibition of Chemical Weapons, and for matters connected therewith or ancillary thereto.

(28th April, 1997) *

Enacted by ACT V of 1997.

CHAPTER 412

OIL POLLUTION (LIABILITY AND COMPENSATION) ACT

To provide for Malta's accession to the Protocol of 1992 amending the International Convention on Civil Liability for Oil Pollution Damage, 1969 and the Protocol of 1992 amending the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, and for the implementation of the provisions of these Protocols.

17th December, 1999 *

ACT XX of 1999.

CHAPTER 424

OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ACT

AN ACT to provide for the establishment of an Authority to be known as the Occupational Health and Safety Authority, an Occupational Health and Safety Appeals Board, and for the exercise by or on behalf of that Authority of regulatory functions regarding resources relating to Occupational Health and Safety and to make provision with respect to matters connected therewith or ancillary thereto.

3rd May, 2001 *

ACT XXVIII of 2000.

CHAPTER 430

PESTICIDES CONTROL ACT

AN ACT to provide for the control of pesticides, and for other purposes connected therewith or incidental thereto.

1st August, 2001

ACT No. XI of 2001

CHAPTER 425

FISHERIES CONSERVATION AND MANAGEMENT ACT

To make provision for the regulation, conservation and management of the fisheries of Malta and matters incidental thereto.

4th June, 2001

ACT II of 2001.

CASES

The Trail Smelter Arbitration 1938, 1941, UNRIAA Vol. III 1905

Corfu Channel Case, ICJ Reports 1947-48, 1949, ICJ Reports (1949) 1

Torrey Canyon, 1967, Cmnd 3246

Amoco Cadiz (1978) 82 RGDIP 1125

Commonwealth of Puerto Rico v SS Colocotroni, 456 F. Supp. 1327 (1978); 638 F. 2d. 652 (1980)

Commission v Council, ECJ (1991) ECR 2867

Commission v Council, C-155/91 ECJ 17.03.1991

Nauru v Australia (Certain Phosphate Lands in Nauru) 26.06.1992, ICJ Rep 1992

Hungary v Slovak Republic (Gabcikovo-Nagymaros Project) 1993 ICJ Rep 1993

United States v Acesto Agr. Chemicals Corp. 872 f.2d 1373 (8th Cir. 1989)

In re Agent Orange Product Liability Litigation, 597 F.Supp. 740 (1984)

American Petroleum Institute v EPA, 906 F.2d 729 (1990)

Arlington Forest Associates v Exxon Corp., 774 F.Supp. 387 (1991)

United States v Articles of Banned Hazardous Substances Consisting of an Undetermined number of Cans of Rainbow Foam Paint, 34 F.3rd 91 (1994)

State of California v Dow Chemicals Co., 840 F.2d 691 (1988)

United States v Cannons Engineering Corp., 899 F.2d 79 (1990)

Charter Tp. Of Oshamo v American Cyanamide Co., 898 F.Supp. 506 (1995)

United States v Chem-Dyne Corp., 572 F.Supp. 802 (1983)

STATEMENTS, RECOMMENDATIONS, RESOLUTIONS,

DECLARATIONS, DIRECTIVES, REGULATIONS

OPINIONS AND PROPOSALS

ASEAN	Singapore Declaration on Political and Economic Cooperation, 28.01.1992
OECD	Recommendation on Guiding Principles Concerning International Economic aspects of Environmental Policies, OECD, C(72)128, 1972 OECD Council Regulation on the Use of Economic Instruments in Environmental Policy (31.01.1991) C(90) 177 Final
UN	Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (formulated in 1957 and updated biennially) Stockholm Declaration UN Conference on the Human Environment in 1972
UNCED	The Rio Declaration on Environment and Development, A/CONF.151/5/Rev.1, 31 ILM 874 (1992) Report of the United Nations Conference on Environment and Development (Rio de Janeiro 3-14.06.1992) UN Doc. A/CONF.151/26 1992
UNEP	Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes adopted by the Governing Council of the UNEP by decision 14/30 of 17 June 1987
UNEP	Governing Council Decision 15/33 (25 May 1989) Decision SS.II/4/A (3 August 1990) Decision 16/30 (31 May 1991)
UNGA	Resolutions 42/183 11.12.1987 Resolution 43/75 07.12.1988 Resolution 43/212 20.12.1988 Resolution 44/226 22.12.1989 Resolution 45/212 21.12.1990 Resolution 47/68 14.12.1992
OAU	Resolution 1153 (XLVIII), dated 25 th May 1988
CHR	Resolution 2001/35 of 23 rd April 2001

TREATIES AND CONVENTIONS

- 1910 International Convention for the Unification of Certain Rules relating to Assistance and Salvage at Sea, Brussels, 23.10.1910, in force 01.02.1913, BFSP Vol. 103 p434
- 1945 Charter of the United Nations, San Francisco 26.06.1945, in force 24.10.1945, 1946 UKTS 67
Statute of the International Court of Justice, San Francisco, 26.06.1945, in force 24.10.1945, 1946 UKTS 67
- 1948 Convention on the International Maritime Consultative Organisation, (Geneva), 06.04.1948 in force 17.03.1958, 289 UNTS 3
- 1952 International Convention relating to the Arrest of Seagoing Ships, Brussels, 10.05.1952, 439 UNTS 193
- 1954 International Convention for the Prevention of Pollution of the Sea by Oil, London, 12.04.1954, in force 26.07.1958, 327 UNTS 3
Amendments to the Convention, adopted at London, 11.04.1962, in force 18.05.1967 and 28.06.1967, 600 UNTS 332
Amendments to the Convention, adopted at London, 21.10.1969, in force 20.01.1978, 1978 UKTS 21
Amendments to the Convention, adopted at London, 15.10.1971, Cmnd. 5071 and 5090
- 1957 International Convention relating to the Limitation of the Liability of Owners of Sea-Going Ships, Brussels, 10.10.1957, in force 31.05.1968, 1969 UKTS 52
- 1958 Convention on the Territorial Sea and Contiguous Zone, Geneva, 29.04.1958, in force 10.09.1964, UNTS Vol. 516 p205
Convention on the High Seas, Geneva, 20.04.1958, in force 30.12.1962, Vol. 450 UNTS 11
Convention on the Continental Shelf, Geneva, 29.04.1958 in force 10.06.1964 UNTS Vol. 499 p311
Convention on Fishing and Conservation of the Living Resources of the High Seas, Geneva, 29.04.1958, in force 30.03.1966 Vol. 599 UNTS 285
- 1960 Convention on Third Party Liability in the Field of Nuclear Energy, Paris, 29.07.1960, in force 01.04.1968, 1968, 956 UNTS 251, UKTS 69; Amended 1964, in force 01.04.1968, 1968 UKTS 69; Amended 1982, in force 07.10.1988, 1989 UKTS 6

- 1962 Convention on the Liabilities of Operators of Nuclear Powered Ships, Brussels, 25.05.1962, 57 (1963) AJIL 268
- 1963 Supplementary Convention to the Convention on Third Party Liability in the Field of Nuclear Energy, Brussels, 31.01.1963, in force 04.12.1974, 1401 UNTS 358, ILM (1963) 685, UKTS 44 (1975)
- 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC) 29.02.1969, in force 19.06.1975, 1975 UNTS 106; Protocol, London 19.11.1976, in force 08.04.1981, 1981 UKTS 26; Protocol, London, 25.05.1984, Cmnd. 9927
 International Convention Relating to the Intervention on the High Seas in Cases of Oil Pollution Casualties, Brussels, 29.11.1969, in force 06.05.1975, 1975 UKTS 77
 Protocol relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil, London, 02.11.1973, in force 30.03.1983, 1983 UKTS 27
 Agreement in Dealing with Pollution of the North Sea by Oil, Bonn, 09.06.1969, in force 09.08.1969, 704 UNTS 3
 Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution, 07.01.1969, in force 06.10.1969, 1969 ILM 497
- 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Brussels, 18.12.1971, in force 16.10.1978, 1978 UKTS 95.
 Protocol, London, 19.11.1976, Cmnd. 7029;
 Protocol, London, 25.05.1984, Cmnd 9926
 Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Materials, Brussels, 17.12.1971, in force 15.07.1975, ND II p664
 Agreement concerning Co-operation in Taking measures Against Pollution of the Sea by Oil, Copenhagen, 16.09.1971, 822 UNTS 311
- 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters, London, 29.12.1972, in force 30.08.1975, 1976 UKTS 43
 Amendments to the Annexes of the Convention, London, 01.12.1978, in force 12.03.1979, 1979 UKTS 71
 Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Oslo, 15.02.1972, in force 07.04.1974, 932 UNTS 3; Protocol, Oslo, 02.03.1983, Cmnd. 8942
- 1973 International Convention for the Prevention of Marine Pollution from Ships (MARPOL), London, 02.11.1973, as amended by Protocol, London, 01.06.1978, in force 02.10.1983, 1983 UKTS 27

- 1974 Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, 22.03.1974, in force 03.05.1980, 1974 13 ILM 546
 Convention on the Prevention of Marine Pollution from Land-Based Sources, Paris, 04.06.1974, in force 06.05.1978, 1978 UKTS 64;
 Protocol, Paris, 20.03.1986, in force 01.02.1990, 1988 27 ILM 625
 Nordic Convention for the Protection of the Environment, Stockholm, 19.02.1974, in force 05.10.1976, 1974 13 ILM 511
- 1976 Convention for the Protection of the Mediterranean Sea Against Pollution, Barcelona, 18.02.1976, in force 12.02.1978, 1976 15 ILM 290
 Protocol Concerning Co-operation in Combating Pollution in the Mediterranean Sea by Oil and other Harmful Substances in Cases of Emergency, Barcelona, 12.02.1976, in force 12.02.1978 ND VI p493
 Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft, Barcelona, 12.02.1976, in force 12.02.1978, ND VI p483
 Agreement relating to the Protection of the Waters of the Mediterranean Coast, Monaco, 10.05.1976, in force 01.01.1981, 85 RGDIP 647 (1981)
 Convention on Limitation of Liability for Marine Claims, London, 19.11.1976, in force 01.12.1986, Cmnd. 7035
 Convention on the Protection of the Rhine against Chemical Pollution, Bonn, 03.12.1976, in force 01.02.1979, 90 RGDIP (1986)
 Convention concerning the Protection of the Rhine against Pollution by Chlorides, Bonn, 03.12.1976, in force 05.07.1985, 90 RGDIP 290 (1986)
 Convention on the Prohibition or Any Other Hostile Use of Environmental Modifying Techniques, Geneva, in force 05.10.1978, 1977 16 ILM 88
- 1977 International Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for, and Exploitation of, Sea-Bed Mineral Resources, London, 01.05.1977, 1977 16 ILM 1450
- 1978 Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, Kuwait, 24.04.1978, in force 30.06.1979, ND X p99
 Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency, Kuwait, 24.04.1978, in force 30.06.1979, ND X p117
 Protocol Relating to the Convention for the Prevention of Pollution from Ships (MARPOL), in force 02.10.1983, 17 ILM 546 (1978)
- 1979 Convention on Long-range Transboundary Air Pollution, Geneva, 13.11.1979, in force 16.03.1983, XVIII ILM 1442 (1979)

- First Protocol on cooperative programmes for monitoring and evaluating long-range transboundary air pollutants in Europe, in force 1988
- Second Protocol on Sulphur Dioxide (SO₂), in force 1987
- Third Protocol on Nitrogen Oxides (NO₂), in force 1991
- Fourth Protocol Concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes, Geneva, 18.11.1991
- 1980 Protocol for the Protection of the Mediterranean Sea from Land-based Sources of Pollution, Athens, 17.05.1980, in force 12.06.1983, 19 ILM 869 (1980)
- 1981 Convention for Co-operation in the Protection and Development of Marine and Coastal Environment of the West and Central African Region, Abidjan, 23.03.1981, in force 05.08.1984, 20 ILM 746 (1981)
- 1982 United Nations Convention on the Law of the Sea, 10.12.1982 in force 16.11.1994, 21 ILM 1245
- Protocol for the Protection of Mediterranean Specially Protected Areas, Geneva, 02.04.1982, in force 03.03.1986, OJ 1982 C278/5
- Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment, Jeddah, Protocol concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency, in force 20.08.1985, 9 EPL 56 (1982)
- 1983 Convention on the Protection and Development of Marine Environment in the Wider Caribbean Area, Cartagena de Indias, 24.03.1983, in force 30.03.1986, Cmnd 9022
- Protocol concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region, Cartagena de Indias, 24.03.1983, in force 17.01.1987, 22 ILM 221 (1983)
- Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and Other Harmful Substances, Bonn, 13.09.1983, in force 01.09.1989, Cmnd. 9104
- 1984 Protocol (to the 1979 Convention) on Long-Term financing of the Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe, in force 28.01.1988, 24 ILM 484 (1985)
- 1985 Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, Protocol Concerning Co-operation in Combating Marine Pollution in Case of Emergency in the Eastern African Region, Nairobi, 21.06.1985, OJ 1986, C253/10

- Convention on the Protection of the Ozone Layer, Vienna, in force 22.09.1988, UKTS 1 (1990)
 Protocol (to the 1979 Geneva Convention) on the Reduction of Sulphur Emissions, Helsinki, in force 02.09.1987, 27 ILM 707 (1980)
- 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Protocol concerning Co-operation in Combating Pollution Emergencies in the South Pacific, Protocol for the Prevention of Pollution of the South Pacific Region by Dumping, Noumea, 24-25.11.1986, in force 18.08.1990, 26 ILM 41 (1987)
 Convention on Early Notification of a Nuclear Accident, Vienna, in force 27.10.1986, 25 ILM 1370 (1986)
 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, Vienna, in force 26.02.1987, 25 ILM 1377 (1986) and Thirteen Annexes 31 ILM (1992) 1333
- 1987 Protocol (to the 1985 Vienna Convention) on Substances that Deplete the Ozone Layer, Montreal, in force 01.01.1989, 1990 UKTS 19
 Protocol (to the 1979 Geneva Convention) Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Sofia, in force 14.02.1991, 27 ILM 698 (1988)
- 1989 The Basle Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 22.03.1989, in force 24.05.1992, 28 ILM 657 (1989)
 International Convention on Oil Pollution Preparedness, Response and Co-operation, London, 30 ILM 735 (1991)
 Protocol of the Southeast Pacific Countries on the Control of the Transboundary Movement of Noxious Wastes and their Disposal
 Central American Agreement on the Transboundary Movement of Hazardous Waste;
 Lome' IV ACP-EEC Convention.
 International Convention on Salvage, London, IMO/LEG/Conf.7/27 in force 14.07.1996
- 1990 Accord of Cooperation for the Protection of the Coasts and Waters of the North-east Atlantic against Pollution Due to Hydrocarbons and Other Harmful Substances, Lisbon, 17.10.1990
 International Convention on Oil Pollution Preparedness, Response and Cooperation, London, IMO, 30.11.1990
- 1991 Convention on Environmental Impact Assessment in a Transboundary Context, Espoo (Finland), 25.02.1991, 30 ILM 800 (1991)
 International Convention on Oil Pollution Preparedness, Response and Co-operation, London, 30 ILM 735 (1991)

- OAU Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa, Bamako, 29.01.1991
 Convention on the Protection of the Alps, Salzburg, 07.11.1991, 31 ILM 767 (1992)
- 1992 United Nations Framework Convention on Climate Change, New York, 09.05.1992, in force 21.03.1994, IEL Supplement (1994) 143
 Convention on Biological Diversity, Rio de Janeiro, 05.06.1992 in force 29.12.1993, IEL Supplement (1994) 171
 Convention on the Transboundary Effects of Industrial Accidents, Helsinki, 17.03.1992
 Convention for the Protection of the Marine Environment in the North-east Atlantic, Paris, 22.09.1992
 Convention on the Protection of the Marine Environment of the Baltic Sea, Helsinki, 09.04.1992
 Convention on the Protection of the Black Sea against Pollution, Bucharest, 21.04.1992
 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, (UNECE), Helsinki, 17.03.1992, 31 ILM (1992) 1312
 Convention on Civil Liability for Oil Pollution Damage, (IMO) London, 27.11.1992 and Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, London, 27.11.1992, with Protocols, texts in Birnie & Boyle Basic Documents in International Law and the Environment
- 1993 Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Lugano, 21.06.1993 CE ETS No 150
 UN Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, Paris, 13.01.1993
- 1995 The Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region, (Waigani Convention), Adopted 16.09.1995, Waigani, Papua New Guinea
- 1998 Convention on the Protection of the Environment through Criminal Law, Strasbourg, 04.11.1998 CE ETS No 172
- 1999 Protocol on Liability and Compensation for Damage resulting from the Transboundary Movement of Hazardous Wastes and their Disposal

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Abbreviations

AFDI	Annuaire Francais de Droit International
AJIL	American Journal of International Law
ASEAN	Association of Southeast Asian Nations
AYIL	Australian Yearbook of International Law
BFSP	British Foreign State Papers
BYIL	British Yearbook of international Law
CE	Council of Europe
CHR	Commission on Human Rights
CJTL	Columbia Journal of Transnational Law
CLY	Current Law Yearbook
CMLR	Common Market Law Reports
Cmnd	Command Papers UK
CS	Continental Shelf
CSC	Continental Shelf Convention
CSD	Commission on Sustainable Development
CTS	Consolidated Treaty Series
CYIL	Canadian Yearbook of International Law
DM	Diritto Marittimo
EC	European Communities
ECR	European Court Reports
EEA	European Environmental Agency
EEC	European Economic Community
ELQ	Ecology Law Quarterly
EPL	Environmental Policy and Law
ETS	European Treaty Series
ER	English Reports
EU	European Union
FAO	Food and Agricultural Organisation
FDA	United States Food and Drug Administration
GATT	General Agreement on Tariffs and Trade
Hague <i>Recueil</i>	Recueil de cours de l'Academie de droit international
HS	High seas
HSC	High Seas Convention
IAEA	International Atomic Energy Agency
ICJ	International Court of Justice
ICJ Rep	International Court of Justice Reports
ICLQ	International And Comparative Law Quarterly
IEL	International Environmental Law (Supplement)
IER	International Environmental Reporter
IJMCL	International Journal of Marine and Coastal Law
ILC	International Law Commission
ILM	International Legal Materials
IMLI	International Maritime Law Institute
IMO	International Maritime Organisation

INTN	National Institute of Technology and Standardisation
IYIL	Italian Yearbook of International Law
LLR	Lloyds Law Reports
JEL	Journal of Environmental Law
MARPOL	International Convention for the Prevention of Maritime Pollution from Ships
MCLQ	Maritime and Commercial Law Quarterly
MP	Marine Policy
NAFTA	North American Free Trade Area
ND	New Directions in the Law of the Sea
NGO	Non-Governmental Organisation
NYIL	Netherlands Yearbook of international Law
OAU	Organisation of African Unity
ODIL	Ocean Development and International Law
OECD	Organisation for Economic Co-operation and Development
OJ	Official Journal of the EU
PBBs	Polybromated Biphenyls
PCBs	Polychlorinated Biphenyls
PCIJ	Permanent Court of International Justice
PCTs	Polychlorinated Terphenyls
POPs	Persistent Organic Pollutants
RDC	Revue de Cours
RDI	Rivista di Diritto Internazionale
RDN	Rivista di Diritto di Navigazione
REDI	Rivista Espanola de Derecho International
RGDIP	Revue General du Droit International Public
SBC	Secretariat of the Basel Convention
TS	Territorial Sea
TSC	1958 Territorial Sea Convention
UK	United Kingdom
UKTS	United Kingdom Treaty Series
UN	United Nations
UNCLOS	1982 United Nations Convention on the Law of the Sea
UNCED	United Nations Council on Economic Development
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Program
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Education and Cultural Organisation
UNGA	United Nations General Assembly
UNLS	United Nations Legislative Series
UNTS	United Nations Treaty Series
US	United States
WCO	World Customs Organisation
WG	Working Group
WHO	World Health Organisation
WLR	Weekly Law Reports

WMO	World Meteorological Organisation
RJE	Revue Juridique de l-Environment
RM	Rivista Marittima
TIAS	Treaties and other International Acts Series
YJIL	Yale Journal of International Law

CHAPTER ONE

INTRODUCTION

The Origin of Environmental Awareness

From time immemorial, humans have lived in relative harmony with the environment. The impact on the environment was often small, localised and reversible, so that no need was felt to protect the environment on international levels. However, since the Industrial Revolution, mankind has been engaged in the discovery, use and exploitation of the earth's mineral resources, thus creating extensive demands on the environment.

Incidents of the inappropriate treatment of the environment have increased in number and extensiveness, and raised serious environmental concerns. It appears that the environment's state seems to be deteriorating persistently as a result of man's so called progress.

In an environmental conference in New Zealand, British environmentalist Edward Goldsmith claimed that, "in the past forty years, we have done more destruction than during the whole of man's tenancy of this planet. If our policies remain unchanged, there is no more question about it – there is no way we can survive another forty years."¹

Former British Prime Minister Margaret Thatcher had stated that, "our most important task is to make people realise that simply to carry on as we are [with the environment] is not an option."²

These assertions, although apparently exaggerated, depict man's negative impact effects upon the environment. Environmental harm is widespread across the

¹ Peter Ditzel, Planet Earth: Beyond Repair? 1990

² Saving the Ozone Layer Conference, Closing Address, London, 7 March 1989

planet: polluted oceans and seas, rapidly disappearing forests, widespread land degradation, acid rain, leaking toxic wastes and the possible destruction of the earth's protective ozone layer.³

Such alarmist concerns for the environment are relatively very recent developments in the history of mankind. It was only in the 1960's that the general public became preoccupied with the need for preserving and improving the quality of the environment. People became aware that the resources of the earth – water, land and air – that are needed to sustain life are being threatened by pollution. Scientists warned that the biosphere can only absorb a limited quantity of pollutants before becoming unfit for living organisms.

European Economic Community

In Europe, the emergence of environmental concerns reached Community⁴ levels in the 1970's. At the July 1972 Paris Summit, the Heads of State and Governments recognised that in the context of economic expansion and improving the quality of life, particular attention should be paid to the environment. Consequently, the first action programme setting out the framework for Community environment policy was adopted, covering the period from 1973 to 1976. Similar multi-annual programmes and a series of directives on the protection of natural resources, noise abatement, nature conservation and waste management were also adopted.

Need for Effective International Control

Worldwide, pleas to curb environmental pollution began to be voiced, but it was soon felt that effective international controls had to be developed and implemented. There were, however, several problems that had to be trashed out. First, it is difficult to achieve co-operation for pollution controls with developing States whose chief concern was to provide such basic needs as food and shelter for their people. Furthermore, industries in some countries feared that the costs of pollution

³ Peter Ditzel, Planet Earth: Beyond Repair? 1990

⁴ Presently the European Union

controls might make it difficult to compete with rival States whose pollution controls may be less costly. Furthermore, environmental damage is often subject to interpretation.

The Need for Environmental Legislation

It was realised that pressure to protect the environment would be useless unless enforceable legislation is implemented on a worldwide basis. Although mankind is generally aware of the negative impact on the environment by modern developments and the increased comfort and standard of living, individuals and organisations were, and some still are, reluctant to accept responsibility to safeguard the environment. In their drive for financial growth and greater returns for their investments, large multinational and other companies often plunder and squander the earth's natural resources without any concern or responsibility for environmental damage. As a result, legislation on environmental matters becomes a necessity.

A Distinct Concept

Environmental law, as a distinct concept, only started to emerge in the late 1960's and the 1970's. A number of severe environmental disasters, such as the oil spill by the Torrey Canyon⁵ in the English Channel⁶ (1967) and the grounding of the Amoco Cadiz⁷ near the Coast of Brittany (1978) led to the realization of the existing threats to the environment.

⁵ Torrey Canyon (1967) Cmnd 3246. The British Government ordered the bombing of the tanker to prevent further pollution. The outcome of this disaster resulted in the 1969 International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties. This Convention gave a right to a State threatened with pollution to remove the source of pollution notwithstanding that it was a foreign ship in international waters. Article 1 provided that "State Parties may take such measures on the high seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threats of pollution of the sea by oil, following upon a maritime casualty or acts related to such a casualty, which may reasonably be expected to result in major harmful consequences". This principle is now embodied in Article 221 of the 1982 Law of the Sea Convention.

⁶ In March 1967, the Torrey Canyon, a 118,000 ton oil tanker registered in Liberia, ran aground on the Seven Stones Reef, a few miles from Land's End, and broke up, spilling about 100,000 tons of crude oil into the sea.

⁷ Amoco Cadiz (1978) 82 RGDIP 1125 (1978). The ship was a much larger oil tanker, which drifted on to the coast of Brittany after its steering gear broke down. It discharged 210,000 tons of crude oil into the sea

As a result of growing pressures from environmentalists, public opinion groups and other environmental accidents, governments started introducing national legislation to combat pollution and to safeguard the environment. Moreover, specialized institutions, administrative bodies and even ministries were set up in order to protect, preserve, and improve where possible, the state of the environment.

It was however realized that environmental issues needed to be tackled on an international basis since it was realized that the environment is a shared natural resource, is the inheritance of all people, with its future and that of mankind depending on its use and misuse irrespective of State borders. Thomas McMillan, formerly Canada's Environment Minister, had stated that, "We are a global village. Everything one country does has an effect on another."⁸

Indeed, it was widely recognized that mankind lives in a global community. The actions of one nation in recklessly disposing of industrial wastes, in dumping toxic materials into the sea, or in depleting its forests, *inter alia*, potentially affected neighbouring States directly, and the world environment indirectly. The logical answer to protect the environment was, therefore, international co-operation. However, since co-operation was lacking between States and the effects of pollution were being felt on a worldwide basis, it was felt that this matter had to be addressed on a worldwide basis and within the purview of international law through the development of relevant conventions. This led to initiatives to develop further international environmental awareness and relevant conventions.

Definition of International Environmental Legislation

International environmental legislation is defined as the "aggregate of all the rules and principles aimed at protecting the global environment and controlling activities within national jurisdiction which may affect another state's environment."⁹

⁸ Peter Ditzel, Planet Earth: Beyond Repair? 1990

⁹ Birnie and Boyle, International Law and the Environment, 1994

Indeed, one of the basic principles of international environmental legislation is that every State should not use its own resources in such a way as may cause injury or harm to another state. This is a realization of the fact that pollution and harm to the environment is not confined to within State borders, but is transported worldwide.

A Principle of the Stockholm Declaration

The Stockholm Declaration adopted by the UN Conference on the Human Environment in 1972, adopted the following principle¹⁰ in respect of the obligation of States to provide 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 beyond the limits of national jurisdiction.”

Sources of Environmental Legislation

International environmental law, as a branch of International Law, has the same characteristics of any other branch of international law. The principal sources of international law have traditionally been treaties and custom. However, the Statute of the Permanent Court of International Justice¹¹ in 1920 – subsequently reproduced in Article 38(1) of the Statute of the International Court of Justice¹² – lists the sources of international law as:

- (a) International conventions, whether general or particular, establishing rules expressly recognized by the contesting States;
- (b) International custom, as evidence of a general practice accepted as law;
- (c) The general principles of law recognized by civilized nations;

¹⁰ Principle 21

¹¹ Hereafter referred to as PCIJ

¹² Hereafter referred to as ICJ

- (d) Subject to the provisions of Article 59¹³, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

Other Sources

Besides the sources of international law stated above, which are sometimes referred to as 'hard law', there are other sources in the field of environmental law, which are usually referred to as 'soft law'. Soft law is usually held to refer to international agreements, codes of practice, guidelines, recommendations, declarations of principles and similar sources which are not mentioned in Article 38(1) of the Statute of the ICJ and are usually adopted by relevant international bodies, such as, the United Nations Environmental Program (UNEP), and the International Maritime Organisation (IMO).

Non-Binding Nature of Soft Laws

'Soft laws', as their name implies, are not binding. On the other hand, they do not lack authority, and are a form of encouraging regulation in environmental matters. They are sometimes a step forward to implement another hard law. For instance, recommendations derived from the 1972 Stockholm Conference (soft law) contributed towards the agreement and approval of the 1973 International Convention for the Prevention of Pollution from Ships (hard law).

Treaty Making Process

In practice, the most common source of environmental legislation is treaties. The treaty-making process includes several stages. Initially, representatives of the interested States and organizations agree on the text of the proposed treaty. After negotiations are completed, the respective authorized officials sign the treaty on behalf of States. Depending on whether the respective State adopts the monist or dualist approach, the treaty is then presented to the legislative authority of the State and

¹³ Art 59 Statute of the ICJ, "The decision of the Court has no binding force except between the parties and in respect of that particular case"

ratified by the presentation of the instruments of ratification. When the Treaty receives the required number of ratifications, acceptance, approvals, accessions or formal confirmations, it enters into force.

Conventions on Environmental Matters

Numerous conventions to prevent pollution of the environment have been adopted. These include the London International Convention for the Prevention of Pollution at Sea by Oil (1954), the London International Convention for the Prevention of Marine Pollution from Ships (1973), the Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution (1976) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989). The latter convention is discussed in further detail in Chapter Three of this thesis.

The Causes and Effects of Marine Pollution

Water covers more than 70% of the global surface.¹⁴ Human life is therefore constrained to living on the remaining 30%. However, human activity is far more encompassing than this apparent limitation. While industrialization, urbanization and other human aspects are mostly concentrated on land, the effect of these activities extend to the sea and the oceans.

Although the world's oceans contain over $14 \times 10^{18} \text{ m}^3$ of water¹⁵, such huge volumes cannot absorb all the wastes of human activities without ill effects. Marine pollutants do not disperse evenly in the waters. The problem is even more pronounced in enclosed seas, such as the Mediterranean, where it is estimated that it takes between 80 to 100 years for its waters to change, leading to higher concentrations of toxic pollutants and marine organisms which take a very long time to disperse.

¹⁴ Arthur Strahler & Alan Strahler, *Environmental Geoscience: Interaction between Natural Systems and Man*, 1992

¹⁵ J. Simpkins & J.I. Williams, *Advanced Biology*, 1980

Even some of the world's largest freshwater lakes have been unable to absorb anthropogenic wastes sources without irreversible and undesirable effects. Living organisms accumulate toxic materials whose levels increase as they go up the food chain. The wastes generated by man's activities therefore became the problem of others.¹⁶ It is quite clear that marine and water pollution has become a major source of environmental concern and an important issue in international environmental legislation.

Pollution of the Marine Environment

“Pollution of the marine environment” is defined as:

“The introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.”¹⁷

Anthropogenic Sources of Marine Pollution

This definition of pollution contains two basic features. First, pollution must be a man-caused phenomenon. Consequently, any harm on the marine environment through natural causes is not considered as pollution in this context. It therefore results that there must be some form of human activity which results in the introduction directly - such as by dumping - or indirectly - such as insecticides, herbicides and fungicides used in the agricultural sector which is then washed into the sea and fresh water sources - of contaminants into the marine environment, in order to be classified as pollution.

Deleterious Effect

The second feature of the definition of marine pollution is that pollution intrinsically has a “deleterious effect”. Although this term is not defined in the Law of

¹⁶ J. Simpkins & J.I. Williams, *Advanced Biology*, 1980

¹⁷ Art 1(1)(4) 1982 Law of the Sea Convention

the Sea Convention, it is normally understood that the term refers to harmful effects to human health, living resources and ecosystems, or having an effect on the legitimate uses of the sea.

The definition in the 1982 Law of the Sea Convention includes substances which, although it is not certain that they will cause harm to the environment, the living resources and marine life, and hazards to human health, are nevertheless included since the definition includes substances which “results or is likely to result”. Clearly, therefore, if there exists any doubt that the introduction of the substance or substances may result in the harmful effects mentioned, then that substance would fall under the definition.

The introduction of the substance or substances will also fall under the definition if it simply results in the hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of seawater and reduction of amenities.

Different Causes of Marine Pollution

There are several causes of marine pollution, such as:

- (a) Dumping of wastes at sea¹⁸;

¹⁸ Art 1(1)(5)(a) 1982 Law of the Sea Convention,

“(a) Dumping means:

- (i) any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea
- (ii) any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea;

(b) Dumping does not include:

- (i) the disposal of wastes or other matter incidental to, or derived from the normal operation of vessels, aircraft, platforms or other man-made structures and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or other man-made structures,
- (ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention”

- (b) From land-based sources e.g. untreated sewage and the dumping of wastes which reach the sea and oceans through rivers and streams, fumes from power plants and factories, etc.;
- (c) Pollution from ships during their voyages¹⁹;
- (d) Pollution from seabed activities i.e. exploration of mineral resources in the seabed.

States are obliged to take measures to prevent, reduce and control pollution of the marine environment²⁰, have a duty not to transfer damage or hazards or transform one type of pollution into another²¹, co-operate on a global or regional level to formulate rules for the protection of the marine environment²², notify other States of imminent or actual damage²³, have contingency plans against pollution²⁴, conduct studies research programmes and exchange information and data²⁵, and co-operate in establishing scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution to the marine environment²⁶.

Unfortunately, there were recently three cases of marine pollution caused by ships registered under the Maltese flag. The oil spill from the *Erika* along the French coast in December 1999, which was followed by two other cases of sinking ships and the release of hazardous substances, namely the *Kristal* and the *Baku*.²⁷

¹⁹ Art 43 1982 Law of the Sea Convention, "User States and States bordering a strait should by agreement co-operate:

- (a) in the establishment and maintenance in a strait of necessary navigational and safety aids or other improvements in aid of international navigation; and
- (b) for the prevention, reduction and control of pollution from ships"

²⁰ Ibid Art 194

²¹ Ibid Art 195

²² Ibid Art 197

²³ Ibid Art 198

²⁴ Ibid Art 199

²⁵ Ibid Art 200

²⁶ Ibid Art 201

²⁷ The Times Editorial, Rough Seas for Maltese Flag, 10th March 2001

Pollution Caused by Hazardous Wastes

This thesis examines the provisions of the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, and also refers to shipping since it is either one of the sources of direct pollution through loss of ships while carrying hazardous and toxic wastes from the exporting State to an importing State or by deliberate dumping. Reference is also made to land-based pollution arising from the disposal of hazardous wastes on land, whether the pollution arises in the same country where the waste is dumped or to another country. This is due to the fact that hazardous wastes disposed of in land sites may still cause pollution of the marine environment through floods or leakages, either directly or through rivers and streams that lead to the sea.

Definition and Sources of Hazardous Wastes

Hazardous wastes can be defined as "those wastes which, due to their nature or quantity, are potentially hazardous to human health and/or the environment and which require special disposal techniques to eliminate or reduce the hazard."²⁸

Sources of hazardous wastes can be grouped into four broad categories:

- (a) By-products of industrial manufacturing processes;
- (b) Consumer products which have become useless or contaminated;
- (c) Residues of hazardous materials which accidentally enter the environment through spills related to storage or transportation;
- (d) Products and residues from laboratories and institutions.²⁹

It is important to emphasise at this stage, however, that the definition of hazardous wastes varies between different States. For the purposes of this thesis, the definition of the Basel Convention will be used.

²⁸ Transboundary Movement Division of Environment, Canada, http://www.ec.gc.ca/tmd/fact_c.htm

²⁹ *ibid.*

Hazardous Wastes as a Significant Source of Pollution

The generation of hazardous wastes is a significant source of pollution. Kiss states that,

“In the widest sense, a major proportion of pollution consists of introduction into the environment of substances of which one wishes to rid oneself. This may take the form of discharge of liquid or solid materials into the sea or continental waters, or even the release of fumes and dust – which may or may not be derived from incineration of materials subject to disposal – into the atmosphere, as well as deposit of materials onto land or into the sub-soil.”³⁰

Effects of Hazardous Wastes

Hazardous wastes cause several environmental and health problems. Indeed, improper disposal of hazardous wastes can cause air, water and soil pollution, which is detrimental to human, plant, and animal health and life. Unless properly confined, wastes deposited on land may contaminate surface and/or ground water sources used for human consumption or for irrigation.

Chemicals may enter the food chain through plant uptake and consumption by fish. The chemicals become more concentrated as they progressively move up the food chain. As the concentration in organisms increases, the potential to cause changes to cell structure and reproduction, nerve and organ tissue functions, increases. The effects are usually cumulative and may lead to more serious manifestations such as mutations, cancer, and reproductive failure in animal and in human beings that are at the end of the food chain.³¹

Demand for Hazardous Wastes Treatment Plants

Although some treatment and disposal facilities for hazardous wastes already exist, the demand is also increasing. Treatment processes can reduce the hazard and volume of wastes. However, industries that treat their waste on site still need a place to

³⁰ Kiss Alexandre, *The International Control of Transboundary Movement of Hazardous Wastes*, 1991

³¹ Transboundary Movement Division of Environment, Canada, http://www.ec.gc.ca/tmd/fact_c.htm

dispose of the residues from their treatment systems Furthermore, industries which cannot afford to treat their wastes on site need access to treatment and disposal facilities. The fact that traditional landfill sites are unsuitable and no longer acceptable for hazardous waste disposal further intensifies the problem.

Indeed, there are no simple solutions to the problem. The generation, use and disposal of hazardous wastes increases threats to the environment that need to be addressed, competently, by adequate and enforceable international environmental legislation.

Environmental Legislation Relating to Hazardous Wastes

The pollution problems from transportation of hazardous wastes have been the subject of international debate since at least the 1980's. Developed countries, eager for searching for cheaper ways of disposing their hazardous wastes, started to ship these wastes to developing countries and to Eastern Europe. On the other hand, the importing countries often did not have the adequate facilities to treat and dispose of the wastes safely, or the technical, legal and institutional capacities to monitor these transactions. It was evident that international action was urgently needed to contain and prevent this practice with its attendant dangers.

A number of well-publicised cases, such as the Philadelphia fly ash deposited on Kassa Island (Guinea), the illegal deposit of Italian hazardous wastes in the port of Koko (Nigeria) and the long voyage of the vessel *Khain Sea* provoked international outcry against such practises and promoted the move to adopt international instruments to address these problems.

Resolution 44/226

The United Nations General Assembly at its 44th session in 1989 adopted the Resolution 44/226 entitled "Traffic in Toxic and Dangerous Products and Wastes". It requested each UN Regional Economic Committee to contribute to the prevention of the illegal traffic in toxic and dangerous products and wastes by monitoring and

making regional assessments of this illegal traffic and its environmental and health implication in each region, in co-operation with UNEP and other relevant bodies.

UNEP and the Basel Convention

On March 22, 1989, after 18 months of intense negotiations, leaders from 105 States unanimously adopted a treaty restricting shipments and dumping of hazardous wastes across national borders. The Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal, conducted under the auspices of the United Nations Environment Program (UNEP), is the first international convention to control the export of hazardous industrial wastes³². A driving force behind the convention is the steady increase in international trade of hazardous waste over the past decade where a growing number of tempting but environmentally questionable waste disposal contracts were being offered and taken by developing States³³.

Objectives of the Basel Convention

The convention has three main objectives:

- (a) The reduction of transboundary movement of hazardous waste and the minimization of their generation;
- (b) To promote the disposal of such wastes as close as possible to their places of origin;
- (a) To prohibit the shipment of hazardous wastes to countries lacking the legal, administrative, and technical capacity to manage them in an environmentally sound manner.

Although there were previous conventions that dealt with particular types of wastes or pollution, the Basel Convention was the first international instrument to deal specifically with different hazardous wastes. Previous Conventions also dealt somewhat with the subject, such as:

³² Ruloff J., New Accord would control waste exports, Science (April 1989)

³³ Ibid

- (a) Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters, London, 1972;
- (b) International Convention for the Prevention of Marine Pollution from Ships, London, 1973 (known as MARPOL);
- (c) United Nations Law of the Sea Convention, Montego Bay, 1982 (known as UNCLOS).

The MARPOL Convention refers to ‘harmful substances’³⁴ and contains various regulations with regard to pollution caused by oil, noxious liquid in bulk and harmful substances carried by sea in packaged form or similarly.³⁵

It is interesting to note that the Basel Convention itself, refers to several related “soft laws”, namely:

- (a) Declaration of the United Nations Conference on the Human Environment, Stockholm, 1972;
- (b) Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes adopted by the Governing Council of the UNEP by decision 14/30 of 17 June 1987;
- (c) Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (formulated in 1957 and updated biennially)³⁶.

Various references will also be made in this thesis to relevant legislation on the transboundary movement of hazardous wastes. Nevertheless, the main emphasis will be on the Basel Convention, which has revolutionised the manner in which such movement is controlled, and where possible, minimised.

³⁴ Art 2(2) MARPOL Convention

³⁵ Ibid Annexes I, II and III respectively

³⁶ Para. 13 Preamble Basel Convention

CHAPTER TWO

HAZARDOUS WASTES

The Use and Misuse of Chemicals

Various chemicals are used by industry to meet the social and economic needs of today's consumers. Industrial competition, especially in the chemical sector, diverts the emphasis from environmental safety in the manufacture and use of chemicals to cost effectiveness. It is clearly evident that the misuse of chemicals creates severe problems for human health and the environment.

Chemical pollution often has long-term effects on the environment, sometimes even extending to fundamental chemical and physical processes of the earth's atmosphere and climate.³⁷ There are approximately more than one hundred thousand chemical substances in use today³⁸ with about ten thousand new chemicals being added each year. These chemicals together with the thousands of natural chemicals with which human beings come into contact, may appear as pollutants and contaminants in food, commercial products and the various environmental media.³⁹

Fortunately, exposure to most chemicals is rather limited, as most are used in comparatively small amounts. However a serious problem is that even for a great number of chemicals characterized by high-volume production, crucial data for risk assessment is often lacking.⁴⁰

Importance of Correct Disposal of Hazardous Wastes

Due to the potential hazards arising from the misuse and disposal of chemicals, it is important to ensure that hazardous chemicals are managed and disposed of in an

³⁷ Rio de Janeiro Conference on Environment and Development, Agenda 21, Chapter 19.2

³⁸ Commission on Human Rights, 54th Session, Item 5 para. 41, E/CN.4/1998/10

³⁹ Rio de Janeiro Conference on Environment and Development, Agenda 21, Chapter 19.11

⁴⁰ Ibid

environmentally sound manner. This, in turn, requires adequate technical information on the risks pertaining to chemical usage.

While most developed States have the resources to address this requirement, developing States often do not have access to the relevant technical information and find it difficult to carry out an appropriate risk analysis of chemicals. As a result, there are great divergences in the manner in which chemicals are used and disposed of by developed and developing States.

In the late 1980's, as strict environmental laws in developed States led to increased costs of disposal of hazardous chemicals, developed States took advantage of the lack of relevant environmental legislation, lower technological standards and lower costs in developing States and increased their export of wastes to be dumping therein, without due care for potential environmental hazards.

This practice was against the original purpose of imposing stricter regulations on the disposal of hazardous wastes. This is because chemical contamination of the environment is a global problem since chemicals do not confine themselves to artificial national boundaries. Any measures to eliminate environmental threats by hazardous wastes needs to be taken on a global and not on a regional basis.

Hazardous Wastes in the Nordic Arctic

A clear example of the worldwide damage caused by hazardous wastes is that affecting the Nordic Arctic. Hazardous wastes known as persistent organic pollutants (POPs) released in industrialized States travel to the Arctic via water and air currents. Once they have reached these remote cold regions, they remain in the Arctic for a long period and find their way into the Arctic food chains⁴¹. POPs are very resistant to natural breakdown processes and have an extremely stable long lifetime, often persisting for years if not decades. If these wastes originating in industrial States are a serious threat to human health, wildlife and the environment in the remote Arctic far

⁴¹ Greenpeace Mediterranean, Down to Zero, Newsletter 12th October 1999

away from their point of release, the more so they are likely to be in the normal heavy populated environment.

A Mediterranean Perspective

The Mediterranean Sea has long been considered as the centre of the civilised world⁴², and it is known that Egyptian ships were sailing in the Mediterranean in 3000 BC. Later, it became the centre of the Minoan, Mycenaean, Phoenician, Greek, Carthaginian and Roman civilizations, while the Romans called it ‘Mare Nostrum’⁴³. With the fall of the Roman Empire in 476 AD, the Mediterranean was controlled successively by the Byzantine and Ottoman Empires, and the Arabs.

Its importance declined after the discovery of an all-water route to India in the late fifteenth century, but was revived with the opening of the Suez Canal in 1869. Thereafter, the Mediterranean became of great strategic value when Great Britain, France and other States establishing colonies and naval bases in the region. Today the Mediterranean is crisscrossed by major trade routes, linking Europe, Africa and the Middle East, and is one of the most heavily sea traffic areas in the world.

Being an enclosed sea with only three access points⁴⁴ and its shores bathing three continents⁴⁵, the Mediterranean is highly vulnerable to pollution. Its weak tides inhibit the dispersal of coastal pollution, with the result that coastal and marine pollution have been synonymous with the Mediterranean. Oil discharged by vessels in the Sea, urban sewage and industrial waste dumped along the coast, and non-biodegradable products such as plastic disposed of on the coast are some of the Mediterranean pollutants.

⁴² The word ‘Mediterranean’ is derived from two Latin words ‘Medius’ and ‘Terra’, literally meaning ‘middle of the world’.

⁴³ Our Sea

⁴⁴ The Straits of Gibraltar, the Dardanelles and the Suez Canal

⁴⁵ Europe, Asia and Africa

As a result of pollution, dead fish have been reported in place as distant as Cyprus⁴⁶ and Algeria⁴⁷. Barrels of toxic wastes, which are considered too dangerous to dump in western States, have been dumped on the shores of Lebanon while paper industries in Turkey still use bleaching technologies long abandoned in developed States. In Israel, a factory⁴⁸ has its discharge pipe directly on a public beach.⁴⁹

Coastal pollution is also a severe problem. The Mediterranean's sunny climate and historical attractions make the Mediterranean a popular tourist destination. Together with the very dense local population located on its shores, the tourist influx results in vast amounts of untreated sewage and other wastes being dumped without being treated. The extent of pollution was such that even traditional enemies⁵⁰ who were still in a state of war were present at the negotiating process of the Barcelona Convention and its various protocols.

There is no doubt that the illegal traffic of hazardous wastes to and from States within the Mediterranean region is a persistent environmental threat not only to the particular States concerned, but also to the Mediterranean as a whole and to all the States in the region. Hazardous wastes such as acids, organic chemicals, toxic materials and other dangerous residues from industrial processes constitute a critical threat to any environment, but especially more so to the enclosed Mediterranean.

The problem is further exacerbated by the transboundary traffic of hazardous wastes from industrial States to low-security dumping grounds in Eastern European and other developing States whose rivers discharge into the Mediterranean.

⁴⁶ In the eastern Mediterranean region

⁴⁷ In the western Mediterranean region

⁴⁸ EIL

⁴⁹ www.greenpeace.org/mt/ships/barcon.html

⁵⁰ Israel and the Arab States

Generation of Hazardous Wastes

In 1998, the Parties to the Basel Convention reported to the Secretariat that more than 252 million metric tons⁵¹ of hazardous wastes and other wastes were generated in 1998⁵². This does not include the amount of wastes generated by States, including Malta⁵³, which were not yet Parties to the Convention in 1998. Moreover, the USA, which is one of the leading industrialized States, has to date not ratified the Convention, and consequently did not report its generation of wastes to the Secretariat.

Furthermore, the amounts reported by some Parties are probably understated, either due to inaccurate accounting techniques or due to pressures within the State itself not to report certain generation of wastes. For these reasons, it is certain that the annual worldwide generation of wastes is higher than the reported figure of 252 million metric tons.

Generators of Hazardous Wastes

An analysis of the reported figures shows that the highest generators of wastes are Eastern European States - especially those that formed part of the former USSR such as the Russian Federation (107 million), Romania (39 million) and Uzbekistan (26 million). However, other countries such as Portugal (23 million)⁵⁴, China (10 million) and Canada (6 million) also generate great amounts of waste. Some of the ex-USSR States have themselves become not only hazardous wastes generators, but also recipients of hazardous wastes. Although the reported amounts require some qualifications in interpretation⁵⁵, it is clear that this excessive annual generation of hazardous wastes and other wastes is detrimental to the environment, considering the potential hazards involved.

⁵¹ Cf. Appendix III

⁵² 1998 is the latest year for which data is available

⁵³ Malta acceded to the Convention on 19th June 2000

⁵⁴ Only 3.2 million of the reported figure relates to industrial hazardous waste production

⁵⁵ Cf. Appendix III for differences among countries in measuring the generation of wastes

National Efforts to Combat the Effects of Hazardous Wastes

Many States have tried to address the harmful effects caused by hazardous wastes on the environment and their populations. They have either initiated or amended national legislation to combat the effects of hazardous wastes and to counteract as much as possible illegal traffic in hazardous wastes and other wastes by increased substantially the penalties for illegal traffic and for inappropriate treatment of hazardous wastes and other wastes. However, some States still lack the legislation and technology to appropriately address the problems caused by hazardous wastes. The following are but some examples of actions by States to address these problems.

Albania

Albania prohibits the imports of hazardous wastes for storage, preservation or disposal by virtue of Article 5 of its Environmental Protection Law (7664/93)⁵⁶.

Argentina

Argentina states that “there is no export ban, but the transboundary movements of wastes are reduced to a minimum consistent with their environmentally sound and efficient manner.”

Australia

In Australia, the maximum fine that can be imposed under the Hazardous Waste Act of 1996 is one million Australian Dollars. Moreover, companies can hold their executive officers personally liable for contravention of the same Act.⁵⁷

Belgium

Belgium has its definition of hazardous waste in line with European Law, although it varies between the three main Belgian regions (Brussels, Walloon and Flemish). In Brussels, the law of 07.03.91 defines hazardous waste, while the Decision of 09.05.96

⁵⁶ Berne Convention Series/SBC No : 00/05 Geneva, December 2000

⁵⁷ Commission on Human Rights, 54th Session, Item 5, para. 21 (E/CN. 4/1998/10)

established a list of dangerous waste which is in conformity with the Council Decision of 22.12.94. In the Walloon region, the Decision of 10.07.97 established a waste catalogue and enumerated categories of hazardous wastes by nature and production-activity. In the Flemish Regulation on the prevention and the management of waste (VLAREA) of 17.12.97 the definition of hazardous waste is in accordance with the EU Council Directives.

China

In China⁵⁸, decisions have been taken not to consent to any import of hazardous or other wastes for any purpose and to limit the export of hazardous and other wastes. In order to control the import of hazardous wastes, in 1991 China promulgated the Circular on the Strict Control of Transfer of Hazardous Waste into China. After several experiences with hazardous waste import, China promulgated, in November 1995, the Urgent Circular on Resolute and Strict Control of Foreign Waste into China. In March 1996, the Government promulgated the Provisional Regulations on Waste Import and Environmental Protection. China resolutely prosecutes those caught importing hazardous wastes.

Croatia

In Croatia, specific criminal legislation regulates acts of illegal handling and dumping of hazardous wastes. Examples of such laws include the Unlawful Trafficking in Explosive or Flammable Material; the Illegal Import of Dangerous Material; the Illegal Acquiring and Handling of Nuclear Material; the Endangering of Security with Nuclear Material; the Destruction of Plantations by the Use of Dangerous Materials; the Endangering of Life and Property by Dangerous Acts or Means; the handling of Dangerous Goods and the Pollution of the Human Environment. All such laws are ancillary to the law on Dangerous and Toxic Wastes, which regulates the rights, obligations and responsibilities of individuals and legal entities in handling wastes.⁵⁹

⁵⁸ Berne Convention Series/SBC No : 00/05 Geneva, December 2000

⁵⁹ Commission on Human Rights, 54th Session, Item 5, para. 23 (E/CN. 1998/10)4/

Cuba

Cuba admits its difficulties in controlling its maritime coasts, which risk being transformed into dumping sites. This is of great concern, when considering that Cuba can easily be used as a transit country for the illegal trading of hazardous wastes, due to its geographical position.⁶⁰

Indonesia

In the case of Indonesia, “if destination country approves the notification of export, their BADEPAL will approve export of hazardous waste.”

Jordan

The Government of Jordan had commissioned a field study on the disposal of dangerous and toxic wastes. As a result, a suitable site 50 kilometres south of Amman was chosen. However, the project failed to materialise due to lack of the necessary funds. Furthermore, there are no facilities for disposing of toxic wastes in Jordan except for dangerous medical wastes, which some major hospitals dispose of in incinerators located on their own grounds.⁶¹

Kuwait⁶²

Kuwait prohibits the import of hazardous wastes for the purpose of re-cycling or disposal.

Poland

Poland only allows exports of hazardous waste after the relevant permit is issued by the Competent Body, (i.e. Chief Inspector for Environmental Protection).

⁶⁰ Commission on Human Rights, 54th Session, Item 5, para 24 (E/CN. 1998/10)4/

⁶¹ Ibid para 27

⁶² Ibid

Romania

Romania⁶³ only permits imports of wastes that are used as raw materials in existing technical capacities, in accordance with its Law on Environmental Protection no. 137/1995.

Switzerland

Switzerland prohibits, with limited exceptions, the exports of hazardous and special wastes for incineration, and only allows exports to OECD countries.

Thailand

Thailand limits the export of hazardous and other wastes for final disposal of PCBs and recovery of sludge from electronic factories.

Ukraine

In line with its commitment to minimize hazards caused by dangerous products and wastes, Ukraine developed an information system to supervise movements of such commodities and wastes. Its functions are the collection and storage of information on issued permits, the design of standardized basic documents, the search for and provision of information on the requirements of problem users and the exchange of information. In addition, a frontier environmental control service was set up in 1995, as part of the State Ecological Inspectorate of Ukraine, to ensure State monitoring of compliance with the requirements of environmental legislation and ecological safety rules in connection with the movement of dangerous substances and wastes across the national border.⁶⁴

Transboundary Movement of Hazardous and Other Wastes

The transboundary movement of hazardous wastes is a widespread established activity. While some of this movement is in accordance with international environmental legislation, specifically the Basel Convention, illegal trafficking of

⁶³ Commission on Human Rights, 54th Session, Item 5, para 23 (E/CN. 1998/10)4/

⁶⁴ Ibid para 32

wastes is not uncommon as has been evidenced by the various instances already referred to and will be referred to in Chapter Three of this thesis.

Origin and Development of Transboundary Movements

During the 1970's increasing public awareness of the harmful effects of the expanding production of hazardous wastes led a number of industrialized States to introduce more stringent legislation in that area. In some of these States, public pressure had resulted in a virtual moratorium on the treatment and disposal of such wastes. During the same period, however, waste production has continued to increase.

During the 1980's, the annual production of waste in OECD member States was about three hundred million tons.⁶⁵ Information submitted to the Special Rapporteur of the Commission on Human Rights indicates that the same States produce more than 95% of all dangerous wastes, with the biggest waste exporters being Germany, the Netherlands, the United States, the United Kingdom and Australia⁶⁶.

As the disposal of hazardous products and wastes became more difficult and more expensive for industrialized States, companies sought outlets in the poorest States which had either not introduced appropriate legislation, did not possess an adequate infrastructure, or did not have the human and financial resources that would allow them to determine the nature of the imported products. In some cases, the products were brought into the country, dumped and stored in contravention of national legislation, either through the use of false documents or by bribery and collusion with officials in the country of export, the transit country or the country of import of the exported dangerous product.

The differences in domestic legislation and the costs of waste disposal in the generator States facilitated the development and proliferation in transboundary

⁶⁵ Commission on Human Rights, 54th Session, Item 5, para 54 (E/CN. 1998/10)4/

⁶⁶ Ibid

movements of hazardous wastes to States and regions lacking the political and economic power to refuse it. Companies in industrialised States found that it was cost-effective to dump these wastes therein as these States and regions lacked strict environmental protection legislation and/or the human and financial resources necessary to enforce such legislation.

According to some estimates, in 1983, 45 million tons representing 15 per cent of the world's hazardous wastes were dumped outside the country of origin. At that time, most trade in wastes was carried out among the OECD countries. In 1988, between 2 and 2.5 million tons of wastes circulated among the European OECD member States. It was not until the mid-1980s that the movement of hazardous wastes acquired a North-South dimension.

Non-governmental sources indicate that between 1986 and 1988 more than 6 million tons were sent to developing and Eastern Europe States, particularly Romania and Hungary. In addition, Africa received around 50 million of the 100 to 300 million tons generated annually by developing States. According to UNEP estimates, developed States exported 20 per cent of their wastes to developing States in 1989. For third world States suffering from over-indebtedness and the collapse of raw materials prices, the import of dangerous wastes had a particular attraction as a measure of last resort to improve their liquidity.

Africa as a Dumping Ground

During the 1980's, Africa was the most frequently targeted dumping ground. The discovery in 1987 and 1988 of the existence of contracts between Western companies and African States whereby the companies paid a mere pittance for sites on which to dump toxic products, prompted a backfire in developing States, especially those in Africa. The Organisation of African Unity (OAU)⁶⁷, declared such dumping

⁶⁷ Organisation of African Unity, Resolution 1153 (XLVIII), dated 25th May 1988

to be a crime against Africa and the African people. Later in the same year, the UNGA⁶⁸ condemned the dumping of nuclear and industrial wastes in Africa.

Bamako Convention

In 1991, African States adopted the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa. Despite the existence of such conventions, numerous agreements and regional directives for the purpose of ensuring control and monitoring of international shipments of wastes, the volume of transboundary movements of toxic wastes has not diminished. Indeed, exports from industrialized States have increased in spite of the prohibitions imposed by the majority of developing States on the import of hazardous wastes and dangerous products.

Increased Waste Production and Recycling

The continuing increase in waste production and the high cost of disposal or recycling operations in wastes generating States has led to a proliferation of so-called “legal exports” of wastes for “recycling programmes”⁶⁹. According to non-governmental estimates covering the period between 1989 and 1993 in States where information is most accessible, nearly 3 million tons of dangerous wastes were “legally” shipped from OECD States to developing States under recycling programmes.

Austria, Canada, France, Germany, the Netherlands, Sweden, the UK and the USA were the largest exporters while the Baltic States and the Eastern and Central European States were the most common importers⁷⁰, followed by countries in Latin America, the Caribbean, Asia and Africa. Germany tended to export chiefly to the Baltic States and Eastern Europe and secondarily to Latin America and Asia. Half of

⁶⁸ UNGA Resolution 43/75, dated 7th December 1988

⁶⁹ Commission on Human Rights, 54th Session, Item 5 para. 62

⁷⁰ The list now includes the Baltic States, Russia, Ukraine, Georgia, Slovenia, Romania, Poland and Albania. Commission on Human Rights, 54th Session, Item 5, para 73

the US exports went to Latin America, while the UK appeared to favour Asia although it was diversifying its export destinations.

Trade in wastes for recycling or re-use has increased sharply. 95% of transboundary movements of hazardous wastes between OECD States and other States are for recovery operations⁷¹. Many cases of recycling operations are fictitious and the wastes are classified as “goods” or “products” for reuse in energy generation, in the construction of roads or buildings, or even as fertilizer.

Recycling operations includes metal recovery, such as lead recycling plants, which is a particularly polluting operation confined as much as possible to developing and Eastern European States. Incineration plants sold to the poorest States are presented as producing free energy from wastes, even though they are subject to stringent regulations and even moratoria on their operation prior to phasing-out in industrialized States. Polluting industries, activities and technologies generating hazardous wastes have moved from OECD States to developing States. Examples include technologies relating to the use of asbestos, cyanide, chlorine and pesticide industries⁷².

Statistics on Transboundary Movements

Similar to reported figures of generated wastes, reports on the transboundary movement of wastes are subject to some degree of inaccuracy. Indeed, the report on the 1998 Transboundary Movement of Hazardous Wastes and Other Wastes⁷³ itself contains a disclaimer⁷⁴.

As at 15th October 2000, seventy-four Parties to the Basel Convention presented their reports for the year 1998. Forty-seven parties reported data on the export of hazardous and other wastes. Twenty parties reported that they did not export

⁷¹ Commission on Human Rights, 54th Session, Item 5, para 64

⁷² Ibid para. 66

⁷³ Report issued by the Secretariat of the Basel Convention

⁷⁴ It states that, “Due to variations in national reporting, these figures are not directly comparable and should be used with caution”

any hazardous or other wastes. On the other hand, twenty-three parties reported data on the import of hazardous and other wastes. Forty parties reported that no import of hazardous or other wastes took place in their State.

According to export data, 10% of total exported wastes were disposed of while 83% were recycled. Details about the remaining 7% were not available. However, according to import data, 14% were disposed of while 73% were recycled. Details about the remaining 13% were not available. These figures do not include illegal trafficking of hazardous and other wastes.

Illegal Traffic of Hazardous Wastes

Illegal traffic refers to the transport of hazardous and other wastes in violation of State laws and international Conventions, including transboundary movements of those products that are not in accordance with applicable guidelines and principles. Various resolutions not only condemn such illegal traffic but Resolutions 42/183 of 11th December 1987 and 44/226 of 22nd December 1989 adopted by the UNGA considers such traffic to be detrimental to public health and the environment.

Furthermore, the Commission on Human Rights Resolution 2001/35 of 23rd April 2001 affirms that “the illicit movement and dumping of toxic and dangerous products and wastes constitutes a serious threat to the human rights of life and health of individuals, particularly in developing countries that do not have the technologies to process them.”⁷⁵

This resolution⁷⁶, in common with other resolutions, also acknowledges the increasing rate of illicit movement and dumping of hazardous and other wastes, by transnational corporations and other enterprises from industrialized States to developing States. The same resolution also recognizes that the illicit movement and dumping of toxic and dangerous products and wastes in developing countries may kill,

⁷⁵ Commission on Human Rights Resolution 2001/35, preamble, para 5

⁷⁶ Ibid para 9

maim or injure persons.⁷⁷ However, it is the Basel Convention that acknowledges and aims to eliminate the illegal transboundary movement of hazardous wastes.

In view of the various cases of the illegal transboundary movement of hazardous wastes and the dumping of such wastes in third world States, the next Chapter of this thesis will refer to specific cases to highlight the existing problems in this sector.

⁷⁷ Commission on Human Rights Resolution 2001/35, preamble, para 13(a)

CHAPTER THREE

Illegal Transboundary Movement of Hazardous Wastes

Pollution by Toxic Substances⁷⁸

The following cases indicate the threat to human health and the environment resulting from the illegal dumping and improper management of hazardous wastes. Furthermore, they clearly indicate the problems and difficulties of identifying the generator and of taking the wastes back, and the practice of industrialized States, multinational corporations and other companies in dumping their wastes in developing States. It further identifies rogue States who violate the Convention.

Italy to Turkey

A 1988 UN report indicated that Western European States were exporting industrial and domestic wastes to Turkey, either as industrial fuel or for storage. However, the country did not possess the required legal and technical capacity to control these imports. Following a proposal to the Turkish Parliament⁷⁹, imports of industrial wastes were banned⁸⁰ while the problems that Turkey had in controlling its lengthy coast were highlighted⁸¹ to a Greenpeace representative⁸².

In six months⁸³, more than 364 barrels of hazardous wastes were washed ashore on the Turkish Black Sea coast⁸⁴. Documents inside the barrels indicated that most of the waste was from Italy⁸⁵. People who had come into contact with the barrels suffered from nausea and skin rashes, animals, birds, fish and dolphins died, while a barrel exploded. Beaches were closed as authorities began to collect the barrels, some

⁷⁸ The London Times, The Danube Pollution Scandal, 20 July 1988

⁷⁹ By Mr Guerseler of the Social Democratic Party

⁸⁰ On 03.03.1988

⁸¹ By Mr Tuc and Mr Yilmaz told Greenpeace representative that Turkish Prime Minister Oezal had tried to limit imported wastes to paper, but it was very difficult to control the sea shore and called for stricter control by exporting States

⁸² Andreas Bernstroff

⁸³ July to December 1988

⁸⁴ Near the towns of Rize, Trabzon, Giresun, Ordu, Samsun, Karasu, Sile, Kandira and Sinop.

⁸⁵ Documents were marked with an 'R' for Rifiuti, the Italian word for waste

of which were buried in the sand, while others were stored in warehouses by local authorities. First analysis⁸⁶ of the wastes indicated that they contained paint, benzene, cellulose lacquer washes, insecticides containing DDT, and PCBs.

An Italian investigation found that most of the waste had been exported⁸⁷ to Sulina⁸⁸. One of the exporting companies⁸⁹ had signed an agreement with the management of the port of Sulina to ship explosive radioactive waste to be stored temporarily in areas set aside for that purpose. The waste was later to be disposed of (under legislation in force in Romania) either through burial in two special dumps or through incineration. The contract⁹⁰ was concluded in spite of the fact that no special dumps or incinerators were known to exist in Romania⁹¹.

Further investigations traced the wastes from Romania until they were washed ashore in Turkey⁹². Since it also resulted that the barrels were intentionally punctured and had sunk while those washed ashore in Turkey were only a small percentage of the cargo, the long-term effects on human health and the environment are unknown and cannot be estimated.

Germany to Turkey

In the fall of 1987, Landratsamt Goppingen authorized the export of 100,000 tons of fuel substitute⁹³ to Turkey⁹⁴, import permission having been illegally issued⁹⁵.

⁸⁶ October 1988 by Dr Mehmet Ozfodan, acting manager of the Turkish Health Service

⁸⁷ On board the Maltese registered ship Corina and the Turkish ship Akbay II

⁸⁸ In Romania.

⁸⁹ Sirteco Italia SRL which was a commercial agent operating in the ecology sector

⁹⁰ European wastes were also exported from companies such as Uniroyal, Acha Chimica Organica and Hoechst, which were stacked in unventilated hangars without any fire-fighting equipment.

⁹¹ The Romanian Minister for Foreign Trade was implicated and subsequently dismissed with 5 other government officials. Seven other Romanians were sentenced to between 11 and 18 years in July 1988.

⁹² By the French environmental group Robin de Bois. It was revealed that the Romanian authorities had stored the barrels for about a year. They were then loaded on the Panamanian vessel Munzur, operated by the Turkish company Careroglu. The barrels were intentionally punctured to sink, but a small percentage did not and had washed ashore in Turkey.

⁹³ The fuel substitute consisted of 50 percent sawdust, 40 percent paint and enamel sludge and 10 percent waste oil, and was to be burned in a cement factory in Isparta, West Anatolia

⁹⁴ By the company Weber of Salach, Weber said that it had supervised the burning of 40 of the first 1,620 tones delivered.

The fuel was contaminated with several types of hazardous materials and Germany was requested to take the fuel back⁹⁶. Turkey was being used as a dumping ground for hazardous wastes⁹⁷.

The West German Greenpeace representative⁹⁸ was informed⁹⁹ about the difficulties faced to control wastes imports¹⁰⁰. Germany¹⁰¹ refused to take the fuel back. A very small amount was subsequently disposed of in Germany¹⁰², but most of the fuel was disposed of in France¹⁰³ where disposal was cheaper.

Improper Disposal of Chemical Residues in Thailand

This case indicates the hazards resulting from the improper disposal of chemical residues. The Government of Thailand¹⁰⁴ brought to the attention of the UN

⁹⁵ Although the chairman of the Isparta Chamber of Commerce had issued import permission, the Chamber had not been authorized to issue such permits. The chairman was Sevker Demirel, brother of Suleiman Demirel, a leading conservative politician and cement factory owner where the fuel was to be disposed of

⁹⁶ In May 1988, Turkish Environment Minister Atasoy visited his West German counterparts, Mr. Toepfer in Bonn and Mr. Vetter in Stuttgart to call on West Germany to take the waste back. Mr. Toepfer said that the waste had been falsely labeled and agreed to take it back, but Vetter said that the project had been technically legal and tried to work out a generally acceptable solution.

⁹⁷ A 1988 United Nations report found that 'Certain West European countries' commonly export 'industrial and domestic wastes' to Turkey as industrial fuel or for storage. 'Since no legislation exists on permission requirements for the importation of wastes, Turkey claims to be unable to control and assess such movement and is, at present, preparing relevant legal provisions, as well as technical facilities, for such control'

⁹⁸ Andreas Bernstroff

⁹⁹ By two Turkish officials, Mr. Tuc and Mr. Yilmaz

¹⁰⁰ That the environmental directorate of Prime Minister Oezal has since been trying to prevent all waste imports other than waste paper, that it is impossible to control the long Turkish shore, and called for strict controls on waste exports from the countries of origin.

¹⁰¹ On July 30, 1988, the Arktis Trader, a vessel owned by the Danish Elite Shipping Company, left the port of Antalya, Turkey, loaded with 1,580 tons of the fuel substitute. Fearing 'that Greenpeace would appear when the ship docked' in Rotterdam, Elite spokesman Mogens Anderson claimed that the wastes were paint from a Turkish car manufacturer and non-toxic.

¹⁰² After Germany, Belgium, and the United Kingdom refused to accept the waste, it was transferred to two smaller Dutch vessels, Denzo and Barend, and shipped to Stuttgart. Three truck-loads were burned in the hazardous wastes incinerator in Biebesheim, Hessen.

¹⁰³ As from mid-January, 1989, one hundred tones of fuel-substitute per week were shipped to SARP Industries' incinerator at Limay, northwest of Paris. Burning 1,500 tones of 'fuel-substitute' in a West German incinerator costs 1.2 million Deutschmarks. At Limay, Weber paid one-sixth of that price. In May 1990, Weber was ordered to dispose of the remaining 690 tons remaining on a barge in Stuttgart before January 1990. However, they were disposed of in France by the end of 1990.

¹⁰⁴ Commission on Human Rights, 54th Session, Item 5, para. 52

Special Rapporteur that a massive fire¹⁰⁵ involving chemicals in various warehouses had caused serious damage to life and property at the Klon Toey port¹⁰⁶ and surrounding areas and made several other observations¹⁰⁷. The remaining residues were quickly dispatched to a landfill¹⁰⁸. A total of 500 tons of chemical residues, sand and stabilizing agent were deposited at the facility

Subsequently, a petition was lodged with the Government¹⁰⁹ alleging that such methods of disposal were environmentally unsound. Although no evidence was found that would indicate contamination by toxic substances, it was decided that the chemical residues were to be removed to another specially designed¹¹⁰ secure landfill¹¹¹ in the same area where continuous monitoring is being kept¹¹².

Belgium to Lebanon

According to the Basel Convention, shipment of hazardous wastes without notification is deemed illegal. A Lebanese factory¹¹³ imported¹¹⁴ two containers of mixed plastic wastes, but had declared them to contain plastic bags¹¹⁵. The containers were shipped from Belgium and were impounded upon arrival in Beirut where it was

¹⁰⁵ On 02.03.1991

¹⁰⁶ In Bangkok

¹⁰⁷ The Thai Government observed that:

- The chemical residues caused by the fire had been properly disposed of;
- The chemical wastes had been under the control of the Thai Port Authority of Thailand;
- That no State had accepted their return;
- That the Thailand Port Authority would co-operate with the Department of Industrial Works and the Ministry of Industry to ensure proper disposal;
- That Thailand is not a State from which illegal traffic of toxic and dangerous substances and wastes originates;
- That the remedial actions taken were in conformity with the Environmental Quality Promotion and Protection Act 1992; and
- That the Pollution Control Department together with NGO's had disseminated accurate and timely information to the public through the mass media on a regular basis

¹⁰⁸ The Port Authority gave permission to utilise an area under the Ninth Army Infantry Division at Tambon Lard Ya, Muang District, Kanchanaburi Province,

¹⁰⁹ On 16.12.1992

¹¹⁰ The Pollution Control Department was charged with the design while the Ninth Infantry Division was charged with its construction. Entire costs were to be borne by the Thailand Port Authority. Constructed between 1994 - 1995

¹¹¹ Identified by the Ministry of Science, Technology and the Environment

¹¹² By the Pollution Control Department

¹¹³ Named Saltex

¹¹⁴ In October 1996, from France through a Lebanese businessman

¹¹⁵ Commission on Human Rights, 54th Session, Item 5, para. 43 & 44

discovered that the waste was contaminated with pharmaceutical chemicals. The Lebanese authorities concluded that the wastes could not be recycled in Lebanon and that it was meant for final disposal therein.

An investigation by the Belgian Government authorities¹¹⁶ revealed that although the waste was subject to notification prior to exportation, no notification had been made. Although the waste producer was committed to take back the waste a *proces verbal* was initiated against the exporter.

Italy to Lebanon

An Italian company¹¹⁷ allegedly shipped over 2,400 tones of chemical wastes to Lebanon¹¹⁸. An additional 2,411 tones of wastes were discovered in East Beirut and Ghazir, 25 kilometers north of Beirut. Investigations revealed how the wastes were imported into Lebanon¹¹⁹. Diplomatic efforts for Italy to fund the total expenses involved in shipping the wastes back were not concluded¹²⁰ until the threat of terrorist activity¹²¹ convinced Italy to fund the whole operation¹²². However, further reports were lodged regarding Italian wastes¹²³.

¹¹⁶ Afvalstoffenmaatschappij voor het Vlaamse Gewest, OVAM

¹¹⁷ Jelly Wax

¹¹⁸ Between September 1987 and June 1988 through ports outside Lebanese government control. On 5th June 1988, barrels of Italian hazardous wastes dumped at sea were discovered on the Kerswan shore, north of Beirut. Other barrels were discovered by fishermen in the southern port of Tyre, to the south of Beirut.

¹¹⁹ The wastes in East Beirut and Ghazir had been unloaded by the waste trading vessel Radhost in mid-May of the same year. The vessel, which was owned by the Czechoslovakia Ocean Shipping Company, had attempted to deliver these wastes to Venezuela in late 1987. According to a Christian Lebanese television station, Lebanese businessman Roger Haddad had demanded \$500,000 in U.S. dollars to take the wastes from Jelly Wax.

¹²⁰ The Italian ambassador Antonio Mancini met with Lebanese Acting Prime Minister Salim Hoss in June to negotiate an agreement. Italy offered to pay \$3 million in U.S. Dollars toward the clean up costs, but Lebanon demanded that Italy pay the entire cost. Senior Lebanese officials encouraged Hoss to recall the Lebanese ambassador from Rome or to freeze diplomatic ties with Italy to force Italy to fund the entire clean up. However, Hoss did neither.

¹²¹ On June 23, 1988 an anonymous caller from the 'Organization of Preserving the Lebanese Right' threatened to physically attack Italian interests in Lebanon unless the Italian government removed the wastes within one week. The threat of terrorist reprisal did spur the Italian government to action, in contrast to the ineffectual efforts of the government of Lebanon.

¹²² Two vessels, the Vorais Sporiades (formerly the Jumbo Trust) and the Yvonne/A, reloaded the wastes in July and August 1988, but were still in Lebanese waters in early November. They remained at anchor, awaiting Italian government orders to return to Italy. On December 15, 1988, the Italian government announced that the waste would be shipped to the Italian port of La Spezia. The mayor of

Italy to Somalia

The situation of Somalia after 1989¹²⁴ made it a prime target for waste exports¹²⁵. Reports of a contract between Somalian government officials and Italian and Swiss companies¹²⁶ were investigated by UNEP¹²⁷. The results of the investigation indicated collusion between companies and persons within Somalia and prevented the contract from being implemented.

Besides the ethical question of the conclusion of a hazardous waste contract with a politically unstable State, the attempts by Swiss and Italian companies to dump hazardous waste in Somalia violates international treaties to which both Switzerland and Italy are signatories¹²⁸.

La Spezia agreed to the return of the wastes provided the wastes were identified and the stay in port was limited.

¹²³ In March 1989, the Lebanese delegate to the Basel Convention, Dr. Milad Jarjouhi, reported that a total of 16,000 barrels and numerous other containers of chemical wastes had been delivered as raw materials and recycling goods to numerous Lebanese companies by 'Italian Mafia-dealers,' who had simply left the wastes or had shipped it into the mountains. He also reported that 9,000 barrels were still 'lost in the mountains' and showed photographs of children who suffered from cauterized patches of skin.

¹²⁴ With the abdication of President Siad Barre in 1989, Somalia was thrown in a state of anarchy. It was subsequently ruled by a series of warlords who had been at war with each other since the mid-eighties. A mission by the United Nations to end the war, which had led to widespread famine, and to stabilize the country ended in political failure.

¹²⁵ In 1992, reports began to appear in the international media about unnamed European companies that had illegally dumped several thousand tons of mostly processed industrial waste in Somalia. It was also reported that waste was seen being dumped off the Somali coast into the Indian Ocean. Furthermore, storage facility in northern Somalia filled with pesticides had been destroyed during the war. The spilt chemicals and resulting fire poisoned one of the few sources of drinking water in the famine-ravaged country.

¹²⁶ In 1992, there were reports of a contract between the Swiss company Achair Partners and the Italian company Progresso with Nur Elmy Osman, who claimed to be the Somali Minister of Health under an interim government headed by Ali Mahdi Muhammad. Osman had been a health official in the Barre government, but was allegedly no longer recognized by Ali Mahdi. Osman had allegedly entered into an \$80 million contract in December 1991, whereby the two companies would be allowed to build a 10 million ton storage facility for hazardous waste. The waste was to be burned in an incinerator which was to be built on the same site and then stored in the facility at the rate of 500,000 tons a year.

¹²⁷ UNEP investigated the matter at the urging of Somalia's neighbors and the Swiss and Italian governments. What ensued was a period of accusations as both firms denied entering into any agreement, Osman denied signing any contract and the Swiss and Italian governments said they had no knowledge of the two firms activities. As a result of UNEP's investigation, the contract was declared null and the facility was never built. Still it became apparent to the UNEP's director Dr. Mustafa Tolba that Achair Partners and Progresso were set up specifically as fictitious companies by larger industrial companies to dispose of hazardous waste. At one point Dr. Tolba declared that the UNEP was dealing with a mafia.

¹²⁸ Switzerland has signed and ratified the Basel Convention. The Convention prohibits, *inter alia*, waste trade between countries that had signed the Convention and countries that have not signed the

Italy to Nigeria¹²⁹

The importance of prior notification of transboundary movement of hazardous wastes made compulsory by the Basel Convention is clearly illustrated by this case concerning the illegal export of hazardous wastes to Nigeria¹³⁰.

An illegal agreement was signed for the storage of hazardous wastes in Nigeria between Italian waste brokers¹³¹ and a Nigerian businessman¹³² to be exported from Italy¹³³ and stored on his property¹³⁴. The wastes were to be received by his company¹³⁵ as substances relating to the building trade and as residual and allied chemicals. When the discovery of the wastes by Nigerian officials was hushed up in Nigeria but was exposed in the Italian media, Nigerian students in Italy alerted a Nigerian newspaper¹³⁶.

Over 100 workers from the Nigerian Port Authority who were employed to remove the wastes were not supplied with proper equipment, and many were hospitalized for chemical burns, nausea, to paralysis. Premature births were also attributed to the high toxicity of the dumpsite¹³⁷.

Eventually, the Italian government agreed to pay for the cost of returning the wastes back to Italy, at least until they could determine the guilty parties. However, the announcement¹³⁸ of the designated Italian ports¹³⁹ where the wastes were to be received resulted in protests, strikes and blockades of the ports in question to prevent

Convention unless a bilateral waste agreement has been negotiated. Somalia and Switzerland had no such bilateral agreement. The Basel Convention also prohibits shipping hazardous waste to a war zone.

¹²⁹ Nigeria Waste Imports from Italy, <http://www.american.edu/ted/nigeria.htm>

¹³⁰ To the port of Koko in 1987

¹³¹ Gianfranco Raffaelli for Ecomar and Renato Pent for Jellywax

¹³² Sunday Nana

¹³³ From Pisa and other Italian ports

¹³⁴ 18,000 drums for approximately \$100 per month. The waste contained PCBs, Dioxin and asbestos fibres

¹³⁵ Irukep Construction Company

¹³⁶ The Guardian, which sought to trigger a response from the Babaginda regime

¹³⁷ By Dr Solomon Ogbemi, Senior Medical Officer, Koko General Hospital

¹³⁸ By the Italian Minister for the Environment Giorgio Ruffolo in July 1988

¹³⁹ The Tuscan port of Livorno for the Karin B, Ravenna or Manfredonia in the South Adriatic for the Deepsea Carrier

the ships¹⁴⁰ from entering and unloading their wastes. The issue took a long time to be resolved¹⁴¹. The case causes several repercussions¹⁴², some of which were later revised¹⁴³, while proposals were also made¹⁴⁴.

Germany to China

The Hualong Chemicals Corporation in the Jiangxi Province, in *China*, illegally imported over forty thousand tons of mixed plastic waste from Germany. The waste polluted the local soil and water, and adversely effected people's health. Since this represents a case of illegal traffic, the wastes were returned to Germany, except for some waste that was appropriately dealt with under the supervision of the local Department of the Environment.¹⁴⁵ Those responsible for this incident were severely punished by the Environmental Protection Bureau.

Germany to Brazil

This case concerned the "accidental" export of 420 litres of sodium sulphate from Germany to Santos, in Brazil, in January 1997. The German exporter had accepted responsibility for the illegal traffic, and agreed to take back the product. However, the product remained stored in the port of Santos because the return procedures had been protracted and it was hard to find a shipping company which would agree to transport the hazardous product to Germany.¹⁴⁶

¹⁴⁰ The *Karin B* and the *Deepsea Carrier*

¹⁴¹ After its arrival in Italy the *Karin B* was refused entry into Livorno when water samples taken from the surrounding area showed traces of toxins leaking from the ship. In December 1988, workers began unloading the *Karin B*. The waste containers were transported to a warehouse until they could be identified, after which they were to be repackaged and shipped off to a temporary storage place in the Emilia Romagna area. In January of 1989 the first wastes left Livorno. The *Deepsea Carrier*, on the other hand, was only allowed to unload its cargo in Livorno in August 1989.

¹⁴² At the diplomatic level, it led to the recalling of the Italian ambassador to Nigeria and the seizing of an Italian freighter, with the demanded for \$1 million compensation from the Italian government. At least 54 persons involved in the transaction received prison sentences, the death penalty was instituted in Nigeria for waste traders, and the exports of hazardous waste to developing countries was banned by Italy. The Italian Ministry of the Environment expected to pay \$14.3 million for claims on the *Karin B*

¹⁴³ The Nigerian government reinstated its ambassador to Italy two months after he had been recalled.

¹⁴⁴ E.g. by the Nigerian President who proposed a regional system known as "Dumpwatch," designed to monitor dumping activities

¹⁴⁵ Commission on Human Rights, 54th Session, Item 5, para 47

¹⁴⁶ *Ibid* Item 10 para. 49

England to Brazil

The following case clearly shows that the State of export does not always acknowledge its fault. Four containers with 68,332 kg of toxic wastes, namely copper, zinc and other heavy metals, arrived in the coastal port of Santos, in the State of São Paulo, in December 1993¹⁴⁷. They had been declared as fertilizers exported from London¹⁴⁸ to Brazil¹⁴⁹.

The consignee asserted that they had been misled as to the nature of the products. On finding¹⁵⁰ that the cargo did not tally with the information on the import documents, the Department of the Environment asked for the assistance of the Secretariat for the Basel Convention, which forwarded the request to the British Government, on the basis of Article 9 of the Basel Convention which provides for the return of dangerous or toxic waste to the country of origin.

The British Government refused the “retroactive” return of the waste, on the grounds that it had not been declared as such in the loading manifest and that the British Government had not been a party to the Basel Convention¹⁵¹ at the time of the transaction¹⁵². The Brazilian Government considered that it was the victim of fraud that enabled prohibited waste to enter its territory although, according to Brazilian legislation, it could only be allowed in for final disposal in the country. The Basel Convention also provides how the wastes should be disposed of where responsibility cannot be assigned¹⁵³.

¹⁴⁷ Commission on Human Rights, 55th Session, Item 10 para 48

¹⁴⁸ By Euromet Hyde House, the Hide

¹⁴⁹ To Produquímica Indústria e Comercio Ltda.

¹⁵⁰ 29 May, 4 June 1996 and 17 April 1997

¹⁵¹ Art 9(3) Basel Convention, “If the fault lies on the State of import, the latter should ensure that the wastes in question are disposed of in an environmentally sound manner by the importer, disposer or itself”

¹⁵² In a letter dated 22.08.1997

¹⁵³ Art 9(4) Basel Convention, “If the responsibility cannot be assigned either to the generator or exporter or to the disposer or importer, the parties concerned or other Parties, should ensure, through co-operation, that the wastes are disposed of in an environmentally sound manner”

Germany to Paraguay¹⁵⁴

The following cases concern a series of transboundary movements of hazardous wastes from Germany to Paraguay, over a number of years. These movements occurred in several instances with false documentation of wastes and collusion with officials in the State of import.

In 1997, 1,118 barrels of hazardous wastes were discovered in the port of Asunción. These wastes had presumably entered Paraguayan territory illegally from industrialized States. Since 1992, they had been stored in an area which floods easily and were likely to pollute the Paraguayan river. This discovery led to a series of investigations on the source and frequency of import of these hazardous wastes. The Paraguay Government also requested assistance from the Secretariat of the Basel Convention and an expert was sent to make a preliminary assessment¹⁵⁵.

In 1998, it was disclosed¹⁵⁶ to a court in Asunción, that between 1989 and 1992, several shipments of toxic wastes¹⁵⁷ produced in Germany and Switzerland had been sent to Paraguay from German and Belgian ports under the guise of donations to fictitious persons¹⁵⁸.

¹⁵⁴ Commission on Human Rights, 55th Session, Item 10, 1999

¹⁵⁵ On the expert's recommendations and sample analysis carried out by the National Institute of Technology and Standardisation, minimum safety measures were adopted, including dividing up of the barrels into several batches and the construction of a low protective wall. A set of barrels arrived in Paraguay from Montevideo in July 1992 and had been entered in the port's register as "fertiliser". The shipping agent appearing on the manifest was Transcontinental SRL and the importer was given as Agrocomercial del Norte, which did not exist in 1992 but which was set up in 1996. Samples taken for analysis in 1993 by the National Institute of Technology and Standardisation (INTN) contained phosphate, chlorine, sulphate, ammonia and nitrates. It concluded that the product was a non-toxic innocuous solution combining nutrients and a fungicide for hydroponics. However, since the method of analysis had not been specified in the report, the expert from the Secretariat of the Basel Convention commented that the INTN's findings could only be confirmed after further analyses. Moreover, the expert raised the question of why it had been necessary to dilute the "fertiliser" when it could have been exported as a concentrate. It was suspected that this consignment was used to camouflage money laundering and drug trafficking operations.

¹⁵⁶ By a former member of the staff at the Paraguay Embassy in Germany

¹⁵⁷ The wastes included PCB on which there is a worldwide ban on production and use and whose improper incineration results in the formation of furans and dioxin, which are highly carcinogenic and mutagenic.

¹⁵⁸ It was alleged that senior Paraguayan officials and the honorary consul of Paraguay in Düsseldorf, Mr Heinrich von Kreyenber were the driving forces behind this traffic. Documents regarding the barrels origin, which were considered as part of illegal trade, disappeared from the files of the port authority.

Documents in the possession of the UN Special Rapporteur indicate that the export was part of a bigger deal between high-level executives in Paraguay and German firms. Greenpeace¹⁵⁹ revealed a letter of intent from a German¹⁶⁰ waste-processing firm to these executives for the export of 1,200,000 tons of wastes to be processed in a planned incineration plant in the Chaco region.

Three further attempts to send German toxic waste to Paraguay¹⁶¹ were discovered in 1990. In one case¹⁶², German police stopped and examined a ship carrying 911 barrels of toxic waste intended for export to Paraguay, which had been fraudulently labeled “bitumen and resin”. The police were alerted when one of the barrels burst open during loading.

German exports were not only made to foreign States, but even to parts of the former East Germany. One such case shows total disregard for any rules whatsoever. When a German company¹⁶³ was denounced for the illegal disposal of hazardous wastes, it re-routed about 1,000 tons of toxic wastes to the former East Germany where the wastes were burned in the boilers of a school¹⁶⁴. The company’s owner¹⁶⁵ was sentenced to four years imprisonment, but was released on parole after only ten months.

Further documents forwarded by Paraguayan authorities¹⁶⁶ indicated that the same person¹⁶⁷ was involved in other cases of export of hazardous wastes to be used as an “alternative fuel” from Germany¹⁶⁸. 100,000 tons of this fuel, which was supplied

¹⁵⁹ In 1989

¹⁶⁰ Pick up Problems

¹⁶¹ From the port of Bremen

¹⁶² February 1990

¹⁶³ Chemex AG SWE Entsorgungsbetriebe KG

¹⁶⁴ In the town of Gustrow

¹⁶⁵ Mr Heinrich von Kreyenberg,

¹⁶⁶ To the UN Special Rapporteur

¹⁶⁷ Mr Heinrich von Kreyenberg

¹⁶⁸ Between 1989 and 1992

as a “gift” to a cement company¹⁶⁹, was to be delivered every year. Although the company did not have the appropriate technology, this fuel was still exported and used, thus endangering the health and life of the employees. Action¹⁷⁰ was taken when the scam was discovered.

United States of America to Mexico¹⁷¹

The border area¹⁷² between the United States and Mexico is a particular dynamic area, both in demographic¹⁷³ and economic terms. More than 2,000 companies¹⁷⁴ were established in the Mexican border region in the seventies and eighties to take advantage of special tax and customs rules¹⁷⁵. They presently employ more than 750,000 people¹⁷⁶. Official documents indicate discrepancies¹⁷⁷ and inspections indicate that only about 25% comply fully with the regulations, while there are also serious irregularities. Information received by the UN Special Rapporteur also indicates serious irregularities and dangerous practices¹⁷⁸.

¹⁶⁹ National Cement Industry (INC), located at Vallemi in the Aquidabon region in the north of Paraguay

¹⁷⁰ It initiated an inquiry with international technical assistance to determine the nature of the products stored at the port; initiated a search for the persons who had engaged in this illicit traffic and referred the case to the law courts; took the necessary precautions to prevent further damage to human health and the environment; and located other sites where toxic waste had been dumped and identified victims and harm to the environment

¹⁷¹ Commission on Human Rights 55th Session Item 10 para 80

¹⁷² It was defined by the 1983 La Paz Agreement as extending over a width of 100 kilometres on both sides of a border that is 3,200 km long

¹⁷³ It has 5.1 million inhabitants on the Mexican side and 5.2 million inhabitants on the American side. Between 1950 and 1980, the population in the border-States on the Mexican side tripled. It is growing at an annual rate of 3 per cent and is set to double in the next twenty years

¹⁷⁴ Called “maquiladoras”

¹⁷⁵ The rules allow these companies to import duty-free raw materials and, in return, the waste from the processing of these materials must be repatriated to the country of origin, usually the United States

¹⁷⁶ The number of lorries crossing the border has doubled in five years and stands at 2 million vehicles a year, which makes it difficult to control the movement of all the different kinds of products entering and leaving Mexico.

¹⁷⁷ According to OECD estimates, these companies produce some 60,000 tons of dangerous waste a year. 48,000 tons of waste were processed and returned to the US in 1996 compared with 22,000 tons in 1993. The Mexican Government intends to make an inventory of the dangerous waste produced, so as to determine whether the discrepancy of 12,000 tons between estimated and recorded production reflects true waste production in Mexico, or whether the estimates were too high

¹⁷⁸ The indications are that most “maquiladoras” illegally dump their dangerous waste in Mexico in fly-tips and numerous potentially dangerous sites near to the border. According to 1996 OECD estimates, only 12 per cent of the 8 million tons of dangerous industrial wastes produced annually in Mexico was properly processed. In 1991, out of 1,855 “maquiladoras”, only 200 are reported to have sent their

A system to improve monitoring of recording incoming and re-exported wastes¹⁷⁹ was developed by the EPA¹⁸⁰ and Mexico¹⁸¹. Nevertheless, grave concerns were expressed about the change in tax regulations scheduled for 2002 would exempt companies from the obligation to re-export their waste.

China/Germany/Netherlands/Haiti¹⁸²

In 1997, at least 88 children in Haiti died of acute kidney failure after taking liquid acetaminophen¹⁸³ produced in Haiti¹⁸⁴, which was contaminated with automobile antifreeze¹⁸⁵. The exporting company¹⁸⁶ knew that the glycerine¹⁸⁷ it had supplied for use in the medication was not pure¹⁸⁸ and could have stopped the shipment¹⁸⁹. After questions were raised in the Netherlands¹⁹⁰ and by the US FDA¹⁹¹, Vos BV denied¹⁹² that the glycerine had been tested in a laboratory¹⁹³.

dangerous waste back to the United States in accordance with the bilateral agreement of 1987 that regulates movements of waste between Mexico and the United States.

¹⁷⁹ Called HAZTRACKS

¹⁸⁰ Environmental Protection Agency

¹⁸¹ Mexican National Institute of Ecology

¹⁸² Commission on Human Rights, 55th Session, Item 10, January 1999

¹⁸³ Trade name Afebril, a paracetamol syrup used to treat fevers, sore throat and headaches. Made by a pharmaceutical company in Haiti

¹⁸⁴ Made by a pharmaceutical company in Haiti (Pharval)

¹⁸⁵ diethylene glycol

¹⁸⁶ Vos BV located in Alphen aan de Rijn, in the Netherlands

¹⁸⁷ Delivered in 1995

¹⁸⁸ An investigation revealed that the company had sent a sample of the glycerine to a laboratory to be examined before delivering it to the designated recipient. Although the test results showed that the glycerine was not suitable for medical use, it was still sold, via a German company, with a "pharmaceutical quality" certificate.

¹⁸⁹ Vos BV directors still deny that the company knew about the glycerine's impurity and that the material had not been analysed by a laboratory. The NRC Handelsblad published the SGS Laboratory Services test report, which showed that the glycerines' purity was less than 54 per cent. Vos received the report in the beginning of March 1995 when the ship containing the glycerine had just sailed and it would have been possible to warn Pharval.

¹⁹⁰ By the Ministry of Public Health

¹⁹¹ United States Food and Drug Administration

¹⁹² In 2000

¹⁹³ However, the glycerine appears to have been tested in late February 1995, around the time it was transported from Amsterdam to Haiti, by SGS Laboratory Services in Dordrecht. A copy of the test report showed that the glycerine had a purity of 53.9%, while international pharmaceutical standards require a purity of at least 95%. Vos BV labels certified it to be "GLYCERINE 98 PCT USP": the designation "USP" (United States Pharmacopoeia) being an internationally recognized qualification for processing in the pharmaceutical industry. Vos still refuses to comment on the matter. According to an SGS employee, the company has carried out laboratory research for Vos "for years".

The Haitian Government requested help from the US FDA to discover the origin¹⁹⁴ of the glycerine¹⁹⁵. Calls for investigation had previously been turned down¹⁹⁶. The investigation¹⁹⁷ revealed that not only had Vos BV asked for the glycerine to be tested¹⁹⁸, but that it was also informed of its poor quality¹⁹⁹ and could have warned Pharval²⁰⁰ in time. Vos BV did not want to comment and referred investigators to its parent company²⁰¹. Vos admitted that it had taken samples, but stated that they were for other purposes²⁰².

¹⁹⁴ The glycerine originated in China, but the FDA has never been able to determine the producer.

¹⁹⁵ FDA staff visited different States, including the Netherlands. The FDA report revealed, among other things, that the glycerine was contaminated with diethylene glycol, which in high doses is fatal for children

¹⁹⁶ J. Verspaget, A Dutch Labour Party parliamentarian, attempted to push for a legal investigation. However, the Public Health Minister, Mr. Borst, saw no reason to do so since there was “no reasonable suspicion” of guilt.

¹⁹⁷ An FDA staff member who visited Alphen aan de Rijn in July 1997 received the same answers as the Netherlands inspectors when he questioned the company’s officials and its director, E.Huisman. The conclusions of the Netherlands inspectors were included in the FDA report.

¹⁹⁸ On 14 December 1994, a consignment of 72 barrels of glycerine arrived in Rotterdam on board a Chinese freighter and stored in a rented warehouse. A fax dated 16 January 1995 from Vos BV to the Rotterdam warehouse - which asked not to be named - shows that Vos requested a 250 ml sample of the glycerine. That was a month before the glycerine was sold to the German company CTC through a paper transaction. The sample was to be sent to Alphen aan de Rijn

¹⁹⁹ A staff member of the Rotterdam warehouse company declared that Vos BV regularly gave such orders. According to the laboratory analysis report, Vos BV asked SGS Laboratory Services to examine the glycerine sample on 21.02.1995. In the meantime, the barrels of glycerine were taken from Rotterdam to Amsterdam by truck and loaded on a ship owned by Nedlloyd, that sailed for Haiti on 25 February. On 2 March 1995, SGS sent its report to Alphen aan de Rijn in which it stated that the glycerine was not of the required quality

²⁰⁰ Vos BV directors still deny that the company knew about the glycerine's impurity and that the material had not been analysed by a laboratory. The NRC Handelsblad published the SGS Laboratory Services test report, which showed that the glycerine's purity was below 54 per cent. Vos received the report in the beginning of March 1995 when the ship containing the glycerine had just sailed and it would have been possible to warn Pharval.

²⁰¹ Since the beginning of investigations, Vos has directed all requests for reactions to its German parent company, Helm AG, in Hamburg, which refuses to discuss the matter further. Helm AG is one of the largest European chemical and pharmaceutical companies in the world, employing 1,300 persons with offices in more than 30 States across Europe, North and South America, Asia and Africa, with a global turnover of more than six billion Deutschmarks. German media has linked Helm AG to problems involving the delivery of pharmaceuticals to Third World countries.

²⁰² In August 1997, two Netherlands Public Health Inspection Service officials spoke with Vos. According to the Ministry of Public Health, at that time, Vos said nothing about the glycerine laboratory test, while staff members told the inspectors that a sample was taken but was not analysed by a laboratory. The sample was only taken, according to Vos, as potential proof if a problem regarding the transaction should develop with the client. At Vos BV, it was not unusual for chemical and pharmaceutical raw materials to be examined by the SGS Laboratory Services in Dordrecht.

The German government denied that the glycerine was shipped from Germany and have stopped investigations²⁰³. The Chinese government also denies that synthetic glycerine of Chinese origin was the cause of the children's death²⁰⁴. The Haitian and Netherlands Governments did not comment on the Chinese Government statements.

The Dutch and German lawyers representing the Haitian pharmaceutical company and the parents of the dead children claim that the Netherlands Justice Department can no longer avoid a criminal investigation²⁰⁵.

United States of America to India²⁰⁶

Allegations have been lodged with the UN Special Rapporteur that the Government of the United States is supporting the continued export of US Naval vessels and other ships to extremely hazardous recycling operations²⁰⁷ in developing States, which are seen as a promising repository for its hazardous waste problems²⁰⁸. The primary destination of these ships is the port of Alang²⁰⁹.

²⁰³ On 14th October 1998, the German Government denied that the alleged shipment had been conducted from Rotterdam. Although at the time Helm AG was the mother company, there were no indications that the glycerine had originated in Germany and there are no reasons to assume that it had been illegally exported from Germany. On this basis, no further investigations of this matter have taken place in Germany

²⁰⁴ The Chinese Government stated that it was profoundly shocked by this misfortune and took the accusations extremely seriously. According to investigations carried out by the ministries concerned, Chinese firms have never exported glycerine to Haiti. It stated that Chinese enterprises that export glycerine enjoy a good commercial reputation and comply with international trading standards.

²⁰⁵ The new facts, according to Mr. Van der Wolf, also make it possible to complete the prepared civil proceedings against Vos BV and the German parent company Helm AG

²⁰⁶ Commission on Human Rights 55th Session Item 10 para. 66

²⁰⁷ The Department of Defence does not consider its vessels to be toxic or hazardous, nor does it regard their export for scrapping to be an export of toxic or hazardous waste, notwithstanding the fact that the scrapping process may result in the generation of hazardous waste materials

²⁰⁸ The Interagency Ship Scrapping Panel gave its support to the scheme even though it acknowledged that the ships were likely to contain very hazardous substances such as asbestos and PCBs with full knowledge that developing States lack environmental and occupational safety standards necessary to prevent harm to human health and the environment

²⁰⁹ This port is in the State of Gujarat in India, where 35,000 poor labourers work in primitive conditions to scrap the ships with blowtorches and chisels. Deaths and crippling accidents occur almost daily and exposure to toxic compounds goes completely unregulated

The Indian Government stated²¹⁰ that its Directorate of Shipping had informed the UN Special Rapporteur that the allegations have not been transmitted to it. The Special Rapporteur has again transmitted the allegation and is still waiting for a reply. The United States Government denied²¹¹ that the Department of Defence was currently exporting US Naval or other vessels for scrapping overseas²¹². It stated that the Secretary of the Navy had issued a moratorium²¹³ suspending such activity²¹⁴ until the process of scrapping ships has been thoroughly studied²¹⁵.

Germany to Albania

When Albania emerged from its diplomatic and commercial isolation in 1988, it was not equipped with the necessary legal, technical and administrative infrastructure to prevent and deal with the transboundary movement of hazardous wastes in the eventuality of becoming a recipient of hazardous wastes. Indeed, several cases of hazardous wastes imports have since been reported.

²¹⁰ In October 1998

²¹¹ In October 1998

²¹² In a summary of the report of the Interagency Panel on Ship Scrapping, communicated to the UN Special Rapporteur, the Department of Defence recommends that the option to scrap vessels both domestically and internationally should not be foreclosed, subject to the report's other more specific recommendations. In the light of more specific recommendations, such as a ship scrapping pilot project to analyse the scrapping process, and the Secretary of the Navy's moratorium suspending any efforts exploring options to dispose of United States Navy ships overseas, the Department of Defence has no immediate plans to export ships for the purpose of scrapping.

²¹³ On 19.12.1997

²¹⁴ In August 1997, Prior to establishing the Panel in August 1997, the Department of Defence had considered exporting vessels that it had owned or formerly owned for scrapping. As a first step in the process in accordance with United States policy, the Department of Defence provided a general notification to 10 countries and the administrative area of Taiwan that the United States allows the export of such vessels and that, like the vessels of other countries, such vessels may contain PCBs in some solid materials, added as plasticizers or fire-retardants during the manufacturing process. The notification identified the potential PCB-containing materials to include paints, rubber products, felt gaskets, machinery mounts, adhesives and electrical cable insulation. It also stated that liquid PCBs would be removed from the vessels before export. None of the countries receiving the notification of the potential vessel export programme responded to it.

²¹⁵ On 24th December 1997, the Department of Defence established an Interagency Ship Scrapping Panel to review the Department of Navy and US maritime administration programmes to scrap vessels and to investigate ways of ensuring that vessels are scrapped in an environmentally sound, safe and economically feasible manner.

Between 1991 and 1992, a German company²¹⁶ exported 480 tons of hazardous wastes²¹⁷ in five shipments as humanitarian aid to Albania²¹⁸ for use in its agricultural sector²¹⁹. One of the chemicals, toxaphene, is so toxic that one litre is capable of contaminating 2,000,000m³ of water to the extent that fish and other life will be killed²²⁰. The transfer was legal under EC regulations in force at the time²²¹. Return of the chemicals²²² was requested when the Albanian authorities discovered the hazards involved²²³, but their prior consent provided a legal base for refusal. The poorly packed leaking containers were stored in Bajze²²⁴ and Milot²²⁵ until the German government accepted their return²²⁶.

EU and World Bank to Albania

Another case in 1992 involved the EU and World Bank projects. Under the EU's Poland-Hungary Aid for the Reconstruction of the Economy (PHARE) Program, 214 tons of pesticides were transported to Albania. The EU claimed to be interested in

²¹⁶ Schmidt-Cretan, a playing-card manufacturer

²¹⁷ Mostly toxaphene and phenyl mercury acetate which were banned by the EEC since 1983

²¹⁸ Greenpeace Press Release, 2 March 1994.

²¹⁹ The belief was that Albanian farmers would be able to resurrect a flailing economy through increased agricultural output. The real reason was that the chemicals' toxic status within the EC meant that disposal in Germany would cost between \$4,800 and \$6,600 per ton. Jewell Topsy, EC PIC regulation – No Net Gain For Environmental Protection, Global Pesticide Campaigner 3, August 1993

²²⁰ The 480 tons exported to Albania is equivalent to 6,000 litres

²²¹ The regulations required the exporter to obtain a notification of export where reasons for its ban or restriction are to be explained, and must be provided. However, this notification need only be served fifteen days in advance of the transfer. Schmidt-Cretan obtained this notice of export through the German government and also received approval from the Albanian Ministry of Agriculture.

²²² It is worthwhile to note that the practice of exporting hazardous materials to Eastern European States as 'humanitarian aid' or for 'recycling' purposes has been commonly accepted since the fall of the Soviet Union in 1991 when these States initiated relations with the West. The case did not attract attention, until investigations by Greenpeace were conducted in 1993. By 1994, there was an outcry by Greenpeace for Germany to rectify the situation

²²³ The expired chemicals were extremely hazardous, they were poorly packaged, of poor quality and generally unsuitable for use

²²⁴ In Northern Albania. Before being re-packed by Greenpeace, they contaminated the soil, released gases and endangered drinking water wells in the surrounding area, including lake Shkodra. Greenpeace Press Release, 2 March 1994

²²⁵ The same resulted in Milot where the containers had been stored next to a school. Greenpeace Press Release, 4 March 1994

²²⁶ The Basel Convention, the publicity by Greenpeace, international pressure and Albania's inability to dispose safely of the chemicals forced the German government to accept the return of the 1991-92 shipments.

assisting agricultural production with ‘essential supplies’²²⁷. The World Bank funded a similar project²²⁸, which led to an additional import of 160 tons of pesticides²²⁹.

Reports published in 1993²³⁰ indicated that Albania had already possessed 3000 tons of pesticides stored by the Communist government, thus making additional imports from the EU and World Bank projects unnecessary²³¹. As a result, untrained farmers were exposed to hazardous chemicals endangering their life and the environment²³². Furthermore, CNN reported that continued acceptance of hazardous wastes seriously endangered Albania’s expanding tourism industry²³³ and questioned whether it had become ‘Europe’s dumping ground’ rather than its ‘playground’.

Dumping of Hazardous Wastes in the Mediterranean by Israel

In 1997, Syria alleged that Israel was disposing of various kinds of radioactive and hazardous wastes in different parts of the Mediterranean Sea and elsewhere²³⁴. These allegations were denied by Israel²³⁵, which commented that the factory referred to²³⁶ was closely supervised²³⁷.

²²⁷ Jewell Topsy, EU Pesticide Aid to Albania, Global Pesticide Campaigner 5, March 1995

²²⁸ Critical Imports Project

²²⁹ The companies involved in the transaction were ICI, Monsanto, Bayer, and Hoechst. In both cases, the pesticides were highly toxic, possible carcinogens, which were a potential threat to the water supply. Furthermore, no training was provided for the Albanian farmers who had never been exposed to such chemicals.

²³⁰ Jewell Topsy, EU Pesticide Aid to Albania, Global Pesticide Campaigner 5, March 1995

²³¹ Ibid Additionally, the poor state of the economy meant that the farmers could not afford to buy imported pesticides, so that by mid-1994, only one quarter to one third of the imported goods had been sold.

²³² E.g, it was reported that an Albania farmer selling his share of expired pesticides at his roadside stand was handling the chemicals with his bare hands, without any protective clothing, respirator and goggles, when Western scientists would not touch these chemicals without such equipment.

²³³ Future Watch CNN Transcript Number 109 “Nice Place to Visit” 30 April 1994. This was before the Kosovo crises

²³⁴ Syria alleged that About 2.5 million cubic metres of polluted water, including hazardous materials from chemical components in Jaffa were dumped into the *Fesho* River, which flows into the Mediterranean. It was also alleged that Israel had been dumping about 50,000 tonnes of hazardous wastes annually into international waters.

²³⁵ In its reply, Israel stated that these were groundless allegations. It was difficult to understand to which river the Syrian authorities were referring to, since there was no river in Israel by the name of Fesho River. However, based on the limited data available in the complaint, it seems that it was based on articles which appeared in the Israeli newspapers concerning a chemical company in the Haifa Bay area and the disposal of their industrial wastes.

²³⁶ The Israeli Government commented that the factory is operated under the close supervision of the Inter-Ministerial Dumping and Land Based Sources Committees and meets all the necessary

Toxic Fumes from Turkish Petrochemical Complex

When the most industrialized region in Turkey suffered an earthquake on 17th August 1999, those who managed to survive were exposed to toxic fumes from the Tupras refinery, next to the Petkim Petrochemical Complex in Yarimca, Kocaeli.²³⁸ The earthquake also revealed Petkim's illegal dumpsite, contaminated with toxic wastes from its plant next to its Yarimca complex near the Sea of Marmara²³⁹.

Contaminated Waste Water Leakage in Romania

In another incident which occurred on 30th January 2000, a dam containing toxic waste from the Bala Mare Aurul gold mine in North Western Romania burst and released one hundred thousand cubic metres of waste-water, heavily contaminated with cyanide, into the Lapus and Somes tributaries of the river Tisza, one of the biggest rivers in Hungary²⁴⁰. The cyanide-contaminated water was then carried to the river Danube, which flows through Serbia, Bulgaria and Romania. Cyanide is a highly toxic chemical and is lethal to humans and other species even in very small doses. The pollution not only caused vast ecological damage, but it was a significant threat to human health since the cyanide level in the upper part of the Tisza was a hundred times higher than the limit value for drinking water.²⁴¹

environmental criteria stipulated by Israeli law and the relevant protocols to the Barcelona Convention. Moreover, the monitoring reports prepared by the Israeli Oceanographic and Limnological Research Limited, showed that the water quality along the Israeli coastlines, including the area north of Haifa, is good and the coastlines themselves are clean, meeting all national and international standards. However, there are no references to other parts of the Mediterranean where Israel may be dumping its hazardous wastes

²³⁷ Commission on Human Rights, 54th Session, Item 5, para. 49, E/CN.4/1998/10

²³⁸ Greenpeace Mediterranean, Toxic Time Bombs, Newsletter 12th October 1999. The survivors were relatively lucky that the fumes were from the burning of light naphta rather than from more hazardous substances such as fuel oil, which could have resulted in more toxic chemicals. The very visible flames and smoke in the area made people realise, perhaps for the first time, the hazards to which they were continuously being exposed.

²³⁹ The toxic wastes dumped in the area could be clearly observed inside the huge cracks caused by the earthquake. With all its catastrophic consequences, the earthquake at least 'succeeded' in creating an urge to publicise and take action over the hazards caused by the industrial processes in the area, and the toxic chemicals being released into the environment, and accumulating each day in the bodies of nearby inhabitants.

²⁴⁰ The Gold Rush, Newsletter, Spring 2000

²⁴¹ Statement given by Hungarian Ministry for the Environment on 14th February 2000

Australia to Belgium

In 1998, 83 tons of tin slag and residues were exported from Australia to Belgium for the recovery of metals and metal compounds. However, 29.8 tonnes had to be returned to Australia as they were outside specifications and could not be dealt with as intended under the Special Export Permit. An order was made under Section 38 of the Australian Hazardous Wastes Act, authorising the company to re-import the hazardous waste and to transport and dispose of the waste in compliance with Australian state laws.²⁴²

Canada to the USA

In 1998, Canada reported that 556 tons were returned from the USA to a Canadian exporter, out of a total of 282,810 tons exported. Similarly, out of the 545,372 tons imported in 1998, 91 tons were returned to the exporter in the USA. These were all subsequently managed in an environmentally sound manner. In the same year, Austria reported that 26.5 tons of Mo-bearing wastes (contaminated with Y24) had to be re-exported from France to Austria (with Switzerland as transit country). The original export dated from 1997.²⁴³

Cases of illegal traffic are mostly publicised in countries with strong environmental pressure groups. In 1995, South African Green movements succeeded in stopping a proposed import of cupric arsenite from the Finnish company Kokkola Chemicals OY to the South African Company JAD Metal Concentrators (Pty.) Ltd by publicising it and creating public awareness²⁴⁴. The public outcry prevented the wastes from being imported²⁴⁵.

Unfortunately, cases of illegal trafficking remain undiscovered because Governments fear publicizing situations which may discredit their administration, lead

²⁴² Information Sources, Basel Convention Series/SBC No : 00/05 Geneva, December 2000

²⁴³ Ibid

²⁴⁴ Commission on Human Rights, 54th Session, Item 10, para. 14

²⁴⁵ Ibid para. 17

the State of export to take retaliatory economic or financial measures, or that may drive away foreign investment²⁴⁶.

²⁴⁶ Commission on Human Rights, 54th Session, Item 5, para. 88

CHAPTER FOUR

THE BASEL CONVENTION

Prior to the Basel Convention

As a result of greater awareness and the realisation of the dangers involved in the disposal of industrial and other hazardous wastes, industrialised States tightened their environmental laws and regulations in the 1980's, leading to a dramatic increase in the cost of hazardous waste disposal. In search for cheaper ways to get rid of these wastes, it was not uncommon to ship these wastes to African and other developing States and to Eastern Europe. When this activity was publicized, international outrage demanded that such practices be forbidden.

Furthermore, the discovery of several ships carrying toxic wastes to third world States and a particular case²⁴⁷ where a ship spent two years at sea as no State wanted to accept its cargo of 13,000 tons of fly ash brought international awareness to the problems caused by the generation and disposal of hazardous wastes and the attempts by industrialised States to export their wastes outside their territory. Indeed, this publicity not only raised international awareness to these problems, but it was also instrumental in expediting international agreement to control the trade through an international convention specifically dealing with the subject.

A Brief History of the Basel Convention

On 22 March 1989, a diplomatic conference²⁴⁸ was held in Basel, at the invitation of the Government of Switzerland, to deal with the problem. The conference drafted and adopted a Convention²⁴⁹, known as the "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal". This Convention entered into force on 5 May 1992, and the first two meetings of the

²⁴⁷ Khain Sea Waste Export Episode, <http://www.American.edu/projects/mandala/ted/khain.htm>

²⁴⁸ Conference of Plenipotentiaries on the Global Convention on the Control of Transboundary Movements of Hazardous Wastes

²⁴⁹ The texts of the Convention are written in six languages, namely, Arabic, Chinese, English, French, Russian and Spanish. All texts are equally authentic.

Conference of the Parties were held in December 1992 (Piriapolis, Uruguay) and in March 1994 (Geneva, Switzerland). In 1995, the Ban Amendment was adopted with the aim of prohibiting exports of hazardous wastes, for any purpose, from certain²⁵⁰ countries to all other Parties to the Convention.²⁵¹

An important milestone in the history of the Convention was achieved in 1998, when the Technical Group of the Convention agreed on lists of specific wastes characterised as hazardous or non-hazardous, which were later adopted by the Parties to the Convention.

The definition of illegal traffic and imposing of responsibility on states was a highly contentious issue during the negotiation process. Some states generally opposed the concept of imposing responsibility for illegal traffic on the state itself, while others insisted on its inclusion. Developing states in particular maintained that the state of export should always bear exclusive responsibility for illegal traffic, a viewpoint which was considered unacceptable by some industrialized states. As with other contentious issues, the wording as adopted is the result of a compromise.

In 1999, The Basel Declaration, also adopted at COP-5 meeting, set out the agenda for the subsequent decade (2000-2010), with a special emphasis on minimizing hazardous waste. In 1999, a Protocol on Liability and Compensation was also adopted, establishing rules on liability and compensation for damages caused by the accidental spills of hazardous waste during export, import or disposal.

These developments in the history of the Basel Convention illustrate that, rather than being a static Convention, it is continually being monitored and evolved to take account of developments. To date, 145 states²⁵² and the European Union have

²⁵⁰ Specified in a proposed new Annex to the Convention (Annex VII – Parties that are members of the EU, OECD, and Liechtenstein).

²⁵¹ In accordance with Article 17 of the Basel Convention, the Amendment has to be ratified by three-fourths of the Parties present at the time of adoption of the amendment (62 Parties) in order to enter into force.

²⁵² Cf. Appendix II for a list of states who ratified the Basel Convention as of 18 April 2001

ratified the Convention. The Secretariat²⁵³, in Geneva, Switzerland, facilitates the implementation of the convention and related agreements. It also provides assistance and guidelines on legal and technical issues, gathers statistical data, and conducts training on the proper management of hazardous waste. UNEP administers the Secretariat.

The Basel Convention

The awareness of the negotiating parties to the dangers involved in the reduction, handling and disposal of hazardous and other wastes, the illegal movement across frontiers, and their commitment²⁵⁴ to address these problems is clearly established in the preamble of the Convention. The Convention may be considered both as a *traite cadre* and as a *traite loi*, since it establishes certain key elements which have to be complied with, while it also lets Parties establish further stricter national legislation if they consider it necessary.

Article 1²⁵⁵, as the first substantive article of the Convention, establishes the scope of the Convention and categorizes different wastes according to lists specified in the Annexes. It establishes not only international classification of hazardous and other wastes, but it also provides for the recognition of national classification to provide further protection applicable under the Convention. Indeed, article 1(1)(b) specifically includes as hazardous wastes,

“Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export,

²⁵³ Located in International Environment House, 11-13, Chemin des Anemones, Building D, 1219, Chatelaine, Geneva, Switzerland (e-mail: sbc@unep.ch)

²⁵⁴ Preamble to the Basel Convention, “Determined to protect, by strict control, human health and the environment against the adverse effects which may result from the generation and management of hazardous wastes and other wastes”

²⁵⁵ Art 1(1) Basel Convention, “The following wastes that are subject to transboundary movement shall be “hazardous wastes” for the purposes of this Convention:

- (a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and
- (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.

import or transit”

This is a very important provision which may be considered as a key protection factor against the transboundary movement of hazardous wastes. This is due to the fact that if the waste in question does not appear in the Annexes, any Party to the Convention, whether it is the exporting, importing, or a transit State, can, through its legislation, classify the particular waste as hazardous, and it will be considered as such by the Convention and will be subject to the provisions of the Convention regarding hazardous wastes. This will bind any other Party to the Convention with the duties found in the Convention and subject them to its sanctions.

The Convention also specifies that wastes that belong to any category contained in Annex II that are subject to transboundary movement shall be “other wastes” for the purpose of this Convention²⁵⁶.

An important factor which is highlighted in the Convention is that it provides that other specified sources of wastes, such as radioactive wastes²⁵⁷ and wastes and discharges from the normal operation of ships which are regulated by other relative international instruments and international control systems fall outside the purview of the Convention²⁵⁸.

UNEP’s Secretariat proposed the exclusion of all radioactive wastes in the first draft Convention, the reason being that such wastes are subject to control by the IAEA.²⁵⁹ At the time of the negotiations, work on the IAEA Code of Practice on transboundary movements of nuclear wastes, adopted in September 1990, had already

²⁵⁶ Art 1(2) Basel Convention

²⁵⁷ Ibid Art 1(3), “Wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials, are excluded from the scope of this Convention”

²⁵⁸ Ibid Art 1(4), “Wastes which derive from the normal operation of a ship, the discharge of which is covered by another international instrument, are excluded from the scope of this Convention”

²⁵⁹ First Draft Convention on the Control of the Transboundary Movement of Hazardous Wastes, 15 October 1987 (UNEP/180/2)

been initiated. This proposal was, however, contested by some of the negotiating states, and others proposed modified versions.

It was also argued that radioactive wastes excluded from the scope of pertinent regulatory systems should be subject to the Basel Convention. In response to an enquiry from the Basel Convention Secretariat, the IAEA in 1993 confirmed that some radioactive wastes are not subject to relevant IAEA or IMO control systems due to their low level of radioactivity. The Secretariat was of the opinion that such wastes should also be regulated by the Basel Convention.

Another question was whether radioactive wastes resulting from military activity, also not covered by IAEA control systems, falls within the purview of the Basel Convention. The final text excludes 'wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials'.

One may say that by providing these exclusions, the Convention is not applying its strict measures, rights, duties and liabilities, to materials from the exempted areas. The answer is that the specified areas are also strictly regulated by other relevant instruments that specifically take account of, and regulate the particular waste or discharge in question.

Furthermore, this can be considered to be a correct measure since otherwise, there may not only be conflict between the different provisions of the relevant Conventions on the rights, duties and liabilities of the Parties, but there may also be disputes and difficulties on whether a particular instance of transboundary waste would fall to be regulated by the Basel or other relevant convention. Moreover, difficulties could also arise, such as what institution charged with resolution of disputes of the different relevant international instruments would have jurisdiction. The exclusion of these areas from the application of the Basel Convention is therefore correct.

As is normal with Conventions and other laws, Article 2 of the Convention relates to the definition of the various terms used in the Convention. Although the term “hazardous wastes” is not defined, it is not difficult to determine that hazardous means that the wastes presents a danger to human health and the environment. Indeed, the definition can be derived from the definition of “Environmentally sound management of hazardous wastes or other wastes”.

This is defined as meaning the “taking all practical steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against adverse effects which may result from such wastes”. Clearly, therefore, hazardous wastes are those wastes which cause adverse effects on human health and the environment.

National Definition of Hazardous Wastes

Article 3 establishes both the duty of each State Party to the Convention to provide, and the Secretariat to disseminate, relevant national legislation of the Parties to the Convention. It provides that each Party to the Convention shall, within six months of becoming a Party to the Convention, inform the Secretariat of the Convention of the wastes, other than those listed in Annex I and II, considered or defined as hazardous under its national legislation and of any requirements concerning transboundary movement procedures applicable to such wastes²⁶⁰.

Parties are also bound to provide any subsequent changes to the Secretariat²⁶¹, while the Secretariat is also bound to inform all the other Parties of significant changes in national legislation²⁶². The Parties are responsible to make the information notified to them by the Secretariat available to their exporters²⁶³.

²⁶⁰ Art 3(1) Basel Convention

²⁶¹ Ibid Art 3(2), “Each Party shall subsequently inform the Secretariat of any significant changes to the information it has provided pursuant to paragraph 1”

²⁶² Ibid Art 3(3), “The Secretariat shall forthwith inform all Parties of the information it has received pursuant to paragraph 1 and 2”.

²⁶³ Ibid Art 3(4), “Parties shall be responsible for making the information transmitted to them by the Secretariat under paragraph 3 available to their exporters”

These are legitimate requirements as otherwise, no one would know about the requirements that have to be met in respect of States whose national legislation may go beyond the protection provided by the Basel Convention. Indeed, many States have made their laws available on the internet, but this does not detract from their responsibility to notify the Secretariat as required by the Convention.

General Obligations

Article 4 refers to the general obligations of the Parties to the Convention. It is quite a lengthy provision and each paragraph will be analysed separately. Article 4(1)(a) provides that Parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other parties of their decision pursuant to Article 13²⁶⁴, which will be referred to later.

Although there is the principle in criminal law that *ignorantia juris neminem excusat*, there is also the other principle that laws have to be published for all to know about them. Otherwise, if a law is not published, nobody can be expected or is bound to observe it. The requirement of notification is therefore quite correct so that all interested Parties will know about the other Parties' laws and be able to comply with them.

Parties Specific Obligations

The second limb of sub-article 1 is a very important provision. It states that Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes to the Parties who have prohibited the import of such wastes, when notified pursuant to paragraph (a) above²⁶⁵.

This provision clearly imposes an obligation on the other Parties to the Convention to prohibit and not permit the export of wastes to other Parties who have specifically prohibited the importation of wastes within their territory. This is a very

²⁶⁴ Art 4(1)(a) Basel Convention

²⁶⁵ Ibid Art 4(1)(b)

onerous obligation which all Parties are obliged to observe, failing which, they will be subject to the liabilities as provided for in the Convention apart from other liabilities which may be applicable under other rules of international law. This would include transit Parties since the Convention does not specify that it is the exporting Party that is obliged to prohibit the export, but Parties to the Convention, which would also include transit States.

Distinction between Parties and Non-Parties

To provide against export to other States that may not be parties to the Convention, there is a distinction between a Party and a State. The Convention provides that export of wastes, whether hazardous or not, shall be prohibited by Parties and shall not be made to a State who has not prohibited such import unless there is a consent in writing authorizing that import²⁶⁶. The distinction between Party and State is clear enough and does not warrant elaborate explanations. Party refers to a State member to the Convention, while State refers to a State that is not a Party to the Convention. This is indirect recognition of the sovereignty and exclusive jurisdiction of a State over its territory.

Measures to be taken by the Parties

Sub-article 2 refers to the appropriate measures that are to be taken by the Parties to reduce the generation of all wastes, provide for their disposal, and other requirements. It requires that each party shall take the appropriate measures to:

- (a) “Ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects”

This provision clearly indicates that the Convention seeks not only to try to control the disposal of all wastes, especially toxic wastes, but strikes at the roots of the

²⁶⁶ Art 4(1)(c) Basel Convention, “Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes if the State of import does not consent in writing to the specific import, in the case where that State has not prohibited the import of such wastes”

problem by requiring Parties to ensure that the wastes generated within its territory are the minimum possible taking into account social, technological and economic aspects. The ideal situation would have been where no hazardous wastes would be generated, but practically, this would have been impossible.

It is impossible not to generate substantial amounts of other wastes, such as normal household and industrial non-hazardous wastes, but Parties are also bound to reduce such wastes according to the above-mentioned criteria.

There are practical steps that could be taken in all States to reduce all types of wastes. Such steps would include the reduction to the minimum possible amount of plastic based materials and the use of recyclable materials, including paper, glass and other products, the establishment of re-cycling plants, and the use of non-toxic or hazardous wastes as compost to prevent and supplement soil erosion and improve the quality of the soil.

Other wastes could, if not causing more contamination to the environment and harm to human health, be used for the generation of electricity by supplementing other sources of energy such as oil and coal. This would, of course, need technological development and change in existing power generation plants, but the more technologically developed countries could develop, use and export the technology to make such an approach possible in all States.

As regards economic aspects, it is quite clear that the developed States which have developed industries are the major sources of wastes generation, either directly within their own territories or in the territories of other States where their industries may have transferred low technology high volume hazardous waste generating plants, and, therefore, are the most to be affected economically in wastes disposal. However, they are also the most technologically developed and have the means to develop safer technologies that generate less waste and the means and methods of safer disposal of the wastes generated.

As far as the social factor is concerned, citizens in developed and industrialized countries enjoy and expect a certain standard of living which results in the generation of all types of wastes which is much higher than that generated in developing countries. The generation and disposal problems of these wastes could be reduced if all, but especially such States developed their laws on the basis of the polluter pays principle.

Availability of Adequate Disposal Facilities

The parties are required to ensure the availability of adequate disposal facilities for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal²⁶⁷.

This is another requirement imposed on the Parties that has to be complied with. It seeks to confine generated wastes to the territory of the Party generating the wastes by providing for the Parties to have adequate disposal facilities within its territory. This could be considered to be an implementation of the polluter pays principle, since the more the Party generates wastes, the more it will have to find the means, both practically and financially, to eliminate it. There is therefore an inbuilt incentive for the Party to try and reduce as much as possible the generation of wastes within its own territory.

Prevention of Pollution

States are required to ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment²⁶⁸.

²⁶⁷ Art 4(2)(b) Basel Convention

²⁶⁸ Ibid Art 4(2)(c)

This is clearly a realization of the hazards involved in handling all types of wastes, but especially more so if the wastes are hazardous. The risk to the population if hazardous wastes are allowed to contaminate the environment, including rivers and water supplies would cause widespread effects not only on the population, but also on living and non-living resources including food.

The Romanian arsenic spill last year²⁶⁹ caused widespread contamination which resulted in the death of millions of fish which had to be fished out of the river and destroyed to prevent further contamination and the risk of human consumption of the contaminated fish. Although not falling within the purview of this particular Convention, the Chernobyl disaster and other nuclear leakages which occurred both in the USA and the UK, are clear examples of the disastrous effects of nuclear contamination.

In view of these effects which may be devastating not only to the State where the contamination occurs but also to neighbouring countries, each Party to the Convention is required to ensure that persons handling wastes are not only conversant with the requirements for the safe disposal of wastes, but that they must also take the necessary measures to prevent pollution and, in case pollution does occur, to take the necessary measures to contain and minimize the consequences of pollution and its consequences on human health and the environment.

Reduction of Wastes

Human development and a better standard of living unfortunately resulted in the generation of more hazardous wastes. A Typical example is the mass production of cars which cause pollution not only through fuels used for their operation, but also generates hazardous wastes such as paint and chemicals used in their production, waste tyres and accumulators. The disposal of accumulators and worn out tyres will contaminate the environment if not properly disposed of. Other wastes generated

²⁶⁹ 2000

during production in the countless products available today have to be disposed of, either in the country of origin or, as is usual, elsewhere.

One of the measures to prevent as far as possible hazards to human health and protect the environment is to reduce all types of wastes, but most important is the reduction of hazardous wastes. In order to address this problem, the Convention provides that States are required to ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against adverse effects which may result from such movement²⁷⁰.

Prohibition to Export Wastes

One of the results of increased awareness about pollution and hazardous wastes was that the citizens of developed States exerted pressure on their political-sensitive governments to introduce stricter legislation concerning the disposal of hazardous wastes. This meant that certain wastes had to be treated and disposed of in a manner which not only reduced danger to human health but also danger to the environment. The treatment and safe disposal of wastes according to new standards and legislation meant increased costs which producers, in turn, tried to decrease.

The easiest and cheapest way to get rid of these wastes was to export such wastes to third world States where environmental protection legislation was not up to the standard of developed States. Furthermore, some wastes were exported to third world States as products for agricultural use, such as fertilizer. This meant that not only were third world States being used as dumping grounds, but that their population was being exposed to unknown dangers. Moreover, third world States did not have the technology to dispose safely of these wastes.

²⁷⁰ Art 4(2)(d) Basel Convention

In order to address these problems, the Convention provides that each Party to the Convention is required not to allow the export of hazardous wastes or other wastes to a State or group of States belonging to an economic and/or political integration organisation that are parties, particularly developing States, which have prohibited by their legislation all imports, or if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner, according to criteria to be decided on by the Parties at their first meeting²⁷¹.

There are several criteria that need to be highlighted. The first criterion is that the export of hazardous wastes and other wastes is prohibited, in this instance, to a State or group of States belonging to an economic and/or political integration organisation where either the State or the economic/political organisation is itself a Party to the Basel Convention. However, import from and export to non-Parties is prohibited by another provision²⁷². The second criterion is that the Party is required to have prohibited by its legislation all imports of hazardous wastes and other wastes. The third criterion is that the exporting Party has to prohibit the export if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner.

While the Convention puts the burden on the exporting Party and transit Parties not to allow the export of hazardous wastes and other wastes for the reasons indicated, it would have been preferable to establish the criteria which the Parties have to adopt according to which the exporting Party may export its wastes to the recipient country rather than leaving it to the Parties to decide.

Established standards would prevent different criteria from being adopted which may allow the export of hazardous wastes between the parties concerned. However, it is recognized that it would have created problems for agreement to be reached between the Parties, but this should not prevent subsequent development or

²⁷¹ Art 4(2)(e) Basel Convention

²⁷² Ibid Art 4(3)

criteria with which the Parties would be able to agree with. Furthermore, the fact that if a Party classifies a waste as hazardous that waste is recognized as such by the Convention and shall not be exported to its territory gives more latitude to environmentally conscious States to promote further control of the waste in question.

Information

One of the most important aspects in the transboundary movements of hazardous wastes is the availability of relevant information, both for the safe transport and on the effects on human health and the environment. For these reasons, the Convention requires that each Party shall take the appropriate measures to require that information about a proposed transboundary movement of hazardous wastes and other wastes be provided to the States concerned, according to Annex V A, to state clearly the effects of the proposed movement on human health and the environment²⁷³.

While it may be thought that the Convention also puts the burden on the importing Party to prevent the import of hazardous and other wastes if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner²⁷⁴, the heading of article 4(2) refers to each Party. Clearly, therefore, it is each Party that has the burden to prevent the import of hazardous wastes and other wastes in the circumstances mentioned.

Co-operation between Parties is essential if the aims of the Convention are to be reached. The Convention therefore requires Parties to co-operate in activities with other Parties and interested organisations, directly and through the Secretariat, including the dissemination of information on the transboundary movement of hazardous wastes and other wastes, in order to improve the environmentally sound management of such wastes and to achieve the prevention of illegal traffic²⁷⁵.

²⁷³ Art 4(2)(f) Basel Convention

²⁷⁴ Ibid Art 4(2)(g)

²⁷⁵ Ibid Art 4(2)(h)

Other Provisions of Article 4

One of the greatest problems that have to be faced is the illegal traffic of hazardous wastes and other wastes. In this context, one of the most important aspects of the Convention is the criminalization of illegal traffic in wastes. The Convention therefore requires that the Parties consider that illegal traffic in hazardous wastes or other wastes is criminal²⁷⁶.

A Convention, as any other law which is not enforced, would serve no purpose at all. For this reason, the Convention requires that each Party shall take appropriate legal, administrative and other measures to implement and enforce the provisions of this Convention, including measures to prevent and punish conduct in contravention of this Convention²⁷⁷. The import and export of hazardous wastes and other wastes is also prohibited from non-Parties²⁷⁸, while the Parties agree not to allow the export of hazardous wastes or other wastes for disposal within the area south of 60° South latitude, whether or not such wastes are subject to transboundary movement²⁷⁹.

Further Requirements

The Convention would have been useless if it had provided for the import and export of hazardous wastes and other wastes by governments and did not prohibit such movements by private persons. Furthermore, it is the government of each particular State that exercises jurisdiction over all legal and natural persons within its territory. For these and other reasons the Convention further requires that each Party shall prohibit all persons under its national jurisdiction from transporting or disposing of hazardous wastes or other wastes unless such persons are authorized or allowed to perform such types of operations²⁸⁰.

²⁷⁶ Art 4(3) Basel Convention

²⁷⁷ Ibid Art 4(4)

²⁷⁸ Ibid Art 4(5) states that, "A Party shall not permit hazardous wastes or other wastes to be exported to a non-Party or to be imported from a non-Party"

²⁷⁹ Ibid Art 4(6)(a)

²⁸⁰ Ibid Art 4(7)(a)

It further specifies that each Party shall require that hazardous wastes that are to be the subject of transboundary movement be packaged, labeled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labeling, and transport, and that due account is taken of relevant internationally recognized practices²⁸¹. By leaving the packaging, labeling and transport to be regulated by relevant international regulations not within the Convention itself, the Convention ensures that these matters are properly regulated by special conventions relevant to each particular matter. The Convention further provides that each Party shall further require that hazardous wastes and other wastes be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal²⁸².

The Convention also provides that hazardous wastes and other wastes are only exported if they can be managed in an environmentally sound manner²⁸³ and according to criteria established between the Parties in conformity with the Convention. Export of Hazardous wastes and other wastes can only be made if the State of export does not have the capacity and necessary disposal facilities and is required as raw material for the processing industries of the country of import²⁸⁴.

²⁸¹ Art 4(7)(b) Basel Convention

²⁸² Ibid Art 4(7)(c)

²⁸³ Ibid Art 4(8), "Each Party shall require that hazardous wastes or other wastes, to be exported, are managed in an environmentally sound manner in the State of import or elsewhere. Technical guidelines for the environmentally sound management of wastes subject to this Convention shall be decided by the Parties at their first meeting"

²⁸⁴ Ibid Art 4(9), "Parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes and other wastes only be allowed if:

- (a) The State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an environmentally sound and efficient manner; or
- (b) The wastes in question are required as raw materials for recycling or recovery industries in the State of import; or
- (c) The transboundary movement in question is in accordance with other criteria to be decided by the Parties, provided that those criteria do not differ from the objectives of this Convention"

The Convention further requires that obligations imposed on Parties generating wastes will not be transferred to other Parties²⁸⁵ while the Parties may also impose additional requirements²⁸⁶. Furthermore, the Convention does not affect the sovereignty²⁸⁷ of States in accordance with international law, and the Parties are also required to periodically review the possibilities of reducing wastes and export to other States²⁸⁸.

Designation of Competent Authorities and Focal Point

In order to facilitate the implementation of the Convention, it provides that Parties are to designate one or more competent authorities and one focal point²⁸⁹; inform the secretariat about their focal point and designated authority²⁹⁰; and inform the secretariat of any changes regarding the designations²⁹¹.

Procedure for Transboundary Movement between Parties

In order to ensure, as far as possible, that the rules of the Convention are adhered to, Parties are required to abide by certain rules on the transboundary movement of hazardous wastes and other wastes laid down in the Convention. States of export, or the generator of hazardous wastes and other wastes, are required to

²⁸⁵ Art 4(10) Basel Convention, “The obligation under this Convention of States in which hazardous wastes and other wastes are generated to require that those wastes are managed in an environmentally sound manner may not under any circumstances be transferred to the States of import or transit”

²⁸⁶ Ibid Art 4(12), “Nothing in this Convention shall prevent a Party from imposing additional requirements that are consistent with the requirements with this Convention, and are in accordance with the rules of international law, in order netter to protect human health and the environment”

²⁸⁷ Ibid Art 12, “Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea established in accordance with international law, and the sovereign rights and jurisdiction which States have in their exclusive economic zones and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of navigational rights and freedoms as provided for in international law and as reflected in relevant international instruments”

²⁸⁸ Art 4(13) Basel Convention, “Parties shall undertake to review periodically the possibilities for the reduction of the amount and/or the pollution potential of hazardous wastes and other wastes which are exported to other States, in particular to developing countries”

²⁸⁹ Ibid Art 5(1), “To facilitate the implementation of this Convention, the Parties shall: (1) Designate or establish one or more authorities and one focal point. One competent authority shall be designated to receive the notification in case of a State of transit”

²⁹⁰ Ibid Art 5(2), “Inform the Secretariat, within three months of the date of entry into force of this Convention for them, which agencies they have designated as their focal point and their competent authorities”

²⁹¹ Ibid Art 5(3), “Inform the Secretariat, within one month of the date of decision, of any changes regarding the designation made”

notify, in writing, through the respective authorities, of any transboundary movement of hazardous wastes and other wastes²⁹².

The State of import is required to give consent in writing and may also require additional information²⁹³. The State of export shall not allow the transboundary movement until it has received written confirmation of consent and confirmation of the relative contract specifying the environmentally sound management of the wastes to be exported²⁹⁴.

Transit States are also required to give their consent to the transboundary movement, while the State of export shall not allow the movement to commence until it has received written consent. If a party decides that it does not require written consent or modifies its requirements, it shall notify the other States. If there is no response within 60 days, the state of export may allow the movement of wastes to commence²⁹⁵.

²⁹² Art 6(1) Basel Convention, “The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes. Such notification shall contain the declarations and information specified in Annex V A, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned”

²⁹³ Ibid Art 6(2), “The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned which are Parties”

²⁹⁴ Ibid Art 6(3), “The State of export shall not allow the generator or exporter to commence the transboundary movement until it has received written confirmation that:

- (a) the notifier has received the written consent of the State of import; and
- (b) the notifier has received from the state of import confirmation of the existence of a contract between the exporter and the disposer specifying the environmentally sound management of the wastes in question”

²⁹⁵ Ibid Art 6(4), “Each State of transit which is a Party shall promptly acknowledge to the notifier receipt of the notification. It may subsequently respond to the notifier in writing, within 60 days, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. The State of export shall not allow the transboundary movement to commence until it has received the written consent of the State of transit. However, if at any time a party decides not to require prior written consent, either generally or under specific conditions, for transboundary movement of hazardous wastes or other wastes, or modifies its requirements in this respect, it shall forthwith inform the other Parties of its decision pursuant to Article 13. In this latter case, if no response is received by the State of export within 60 days of the receipt of a given notification by the State of transit, the State of export may allow the export to proceed through the State of transit”

Tracking and Methods

One of the problems that could arise is that once hazardous wastes are exported, they could find their way either into the wrong hands where they could be used as weapons, or they could be illegally dumped in places where hazards could be caused to human health and the environment. They could also end up being illegally re-exported to third States, whether in their original form or disguised as other products with all the attendant dangers.

To prevent as far as possible such dangers and illegal exports, the Convention provides for the continuous tracking of hazardous wastes and the methods which are to be followed in the case of transboundary movement of hazardous wastes. These depend on whether the wastes are legally defined or classified by the State of export or import, but the Convention itself requires that a document, known as a movement document, has to be filled by the respective parties involved in the transboundary movement of hazardous wastes²⁹⁶ or other wastes.

Where hazardous wastes and other wastes are regularly exported, general notification may be allowed by the State of export instead of individual notification for each transboundary movement, but this applies only if there is the written consent of the States concerned and where the wastes have similar characteristics²⁹⁷. In order to exercise effective control, the States concerned may make their consent subject to the

²⁹⁶ Art 6(5) Basel Convention, “In the case of a transboundary movement of wastes where the wastes are legally defined as or considered to be hazardous wastes only:

- (a) By the State of export, the requirements of paragraph 9 of this article that apply to the importer of disposer and the State of import shall apply *mutatis mutandis* to the exporter and State of export respectively; or
- (b) By the State of import, or by the State of import and transit which are Parties, the requirements of paragraphs 1, 3, 4 and 6 of this article that apply to the exporter or the State of export shall apply *mutatis mutandis* to the importer or disposer and State of import, respectively; or
- (c) By any State of transit which is a Party, the provisions of paragraph 4 shall apply to such State”

²⁹⁷ Ibid Art 6(6), “The State of export may, subject to the written consent of the States concerned, allow the generator or the exporter to use a general notification where hazardous wastes or other wastes having the same physical and chemical characteristics are shipped regularly to the same disposer via the same customs office of exit of the State of export via the same customs office of the State of import, and, in case of transit, via the same customs office of entry and exit of the State or States of transit”

supply of certain information²⁹⁸, while general notification may cover multiple shipments²⁹⁹, in which case this is limited to a 12-month period.

A movement document is required to provide continuous tracking of transboundary movement of hazardous or other wastes³⁰⁰. In the case of non-Parties, notification is to be made to the relevant governmental authority³⁰¹, while all transboundary movements of hazardous wastes or other wastes are to be covered by insurance³⁰². The provisions of Article 6(1) also apply to transboundary movement of hazardous wastes or other wastes through transit States which are not parties³⁰³.

Return of Wastes

One of the problems which was previously being faced by States of import was that imported wastes were either not according to the specifications which the exported had indicated, or they contained other contaminants which not only made the wastes more hazardous, but the importing State may not have had the technology to dispose of the wastes in an environmentally sound manner. To address this matter, the Convention imposes a duty on the exporting State to re-import the wastes. The Convention provides that in the case of transboundary movement of hazardous wastes or other wastes where their disposal cannot be completed according to the terms of the

²⁹⁸ Art 6(7) Basel Convention, “The States concerned may make their written consent to the use of the general notification referred to in paragraph 6 subject to the supply of certain information, such as the exact quantities or periodical lists of hazardous wastes or other wastes to be shipped”

²⁹⁹ Ibid Art 6(8), “The general notification and written consent referred to in paragraphs 6 and 7 may cover multiple shipments of hazardous wastes or other wastes during a maximum period of 12 months”

³⁰⁰ Ibid Art 6(9), “The Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document either upon delivery or receipt of the wastes in question. They shall also require that the disposer inform both the exporter and the competent authority of the State of export of receipt by the disposer of the wastes in question and, in due course, of the completion of disposal as specified in the notification. If no such information is received within the State of export, the competent authority of the State of export or the exporter shall notify the State of import”

³⁰¹ Ibid Art 6(10), “The notification and response required by this Article shall be transmitted to the competent authorities of the Parties concerned or to such governmental authority as may be appropriate in the case of non-Parties”

³⁰² Ibid Art 6(11), “Any transboundary movement of hazardous wastes or other wastes shall be covered by insurance, bond or other guarantee as may be required by the State of import or any State of transit which is a Party”

³⁰³ Ibid Art 7, “Paragraph 1 of Article 6 of the Convention shall apply *mutatis mutandis* to transboundary movement of hazardous wastes or other wastes from a Party through a State or States which are not Parties”

contract, these wastes shall be taken back to the exporter if no alternative arrangements can be made for their disposal³⁰⁴.

Illegal Traffic

As already mentioned, one of the greatest problems was that of illegal traffic in the transboundary movement of hazardous wastes and other wastes. While the risk of hazardous wastes falling in the wrong hands could not be excluded, the greatest problems were that industrialized States, where awareness and public opinion forced the introduction of stricter environmental and waste disposal legislation, did not have enough disposal facilities and space for the safe disposal of the hazardous wastes that their industries were continuously generating.

To get around this problem, industries were exporting their hazardous wastes illegally to third world States that did not have the technology and the means to dispose safely and in an environmentally sound manner of the wastes being received. To add insult to injury, some of the wastes were even given as aid to developing States and were defined as fertilizers to improve the soil or alternative fuels for energy generation. This meant that not only did the importing States not know about the hazards involved in handling the wastes, but that their use by farmers untrained in the use of fertilizers and other chemicals contaminated large areas of land and sources of potable water in the receiving State.

In order to prevent as far as possible the illegal traffic in hazardous wastes and other wastes, the Convention not only defines what constitutes illegal traffic³⁰⁵, but it

³⁰⁴ Art 8 Basel Convention, "When a transboundary movement of hazardous wastes or other wastes to which the consent of the States concerned has been given, subject to the provisions of this Convention, cannot be completed in accordance with the terms of the contract, the State of export shall ensure that the wastes in question are taken back to the State of export, by the exporter, if alternative arrangements cannot be made for their disposal in an environmentally sound manner, within 90 days from the time that the importing State informed the State of export and the Secretariat, or such other period of time as the States concerned agree. To this end, the State of export and any Party of transit shall not oppose, hinder or prevent the return of those wastes to the State of export"

³⁰⁵ Ibid Art 9, "For the purpose of this Convention, any transboundary movement of hazardous wastes or other wastes:

(a) without notification pursuant to the provisions of this Convention to all States concerned; or

also provides for strict obligations on the Parties³⁰⁶ to return and accept the wastes back. Furthermore, the Parties concerned must not hinder the return back of the wastes, which means that if a State of transit had granted permission for the wastes to be transported through its territory, it must again let the wastes be transported back to the exporting State if no other way exists.

This provision was necessary as otherwise transit States may have hindered the importing State from sending back, or the exporting State from taking back the hazardous wastes. This also means that all States, whether it is the exporting or transit State, must not only observe the provisions of the Convention relating to the continuous tracking and documentation of hazardous wastes and other wastes, but that they must do so diligently as otherwise, they cannot refuse the return back to, and transit of the wastes concerned through their territory.

In the case where the fault of the illegal traffic of hazardous wastes or other wastes lies with the importer or disposer, the importing State itself is bound to dispose of the wastes concerned in an environmentally sound manner within 30 days from when it learns of the illegal traffic or a shorter period of time, while the Parties involved are also obliged to co-operate in its disposal³⁰⁷. Where responsibility cannot

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- (b) without the consent pursuant to the provisions of this Convention of a State concerned; or
 - (c) with consent obtained from States concerned through falsification, misrepresentation or fraud; or
 - (d) that does not conform in a material way with the documents; or
 - (e) that results in deliberate disposal (e.f. dumping) of hazardous wastes or other wastes in contravention of this Convention and of general principles of international law, shall be deemed to be illegal traffic”

³⁰⁶ Art 9(2) Basel Convention, “In case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic as the result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are:

- (a) taken back by the exporter or generator or, if necessary, by itself into the State of export, or, if impracticable;
- (b) are otherwise disposed of in accordance with the provisions of this Convention, within 30 days from the time the State of export has been informed about the illegal traffic or such other period of time as States concerned may agree. To this end the Parties concerned shall not oppose, hinder or prevent the return of those wastes to the State of export.

³⁰⁷ Ibid Art 9(3), “In the case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic as the result of conduct on the part of the importer or disposer, the State of import shall ensure that the wastes in question are disposed of in an environmentally sound manner by the importer or disposer or, if necessary, by itself within 30 days from the time the illegal traffic has come

be assigned, all Parties must co-operate in the disposal of the wastes³⁰⁸, while each Party is also obliged to adopt national legislation to prevent and punish illegal traffic³⁰⁹.

International Co-operation

The daily discovery of new chemicals and the resultant wastes means that new methods may have to be found to dispose of the new chemicals and wastes in an environmentally sound manner and without danger to human life. Furthermore, not only do not all States have the technology to dispose safely of new chemicals and their wastes, but that the long term effects on human health and the environment may not yet be known.

When making new discoveries, it may not be realized that some materials which are discovered and mass produced and which provide a better standard of living may not only generate more hazardous wastes, but other materials which revolutionized and were considered as major discoveries such as DDT, PCBs etc, were later found to affect human health and the environment. However, the time taken between their discovery and the effects caused on human health and the environment meant that severe damage had already been caused and will continue to be caused for a long time.

To maintain the development and the standard of living, safer materials with the same characteristics or rather the same utility, had to be found to replace them, but the long-term effects may not yet be known. The example of the mass production of CFCs that were hailed as a great breakthrough in refrigeration and air conditioning

to the attention of the State of import or such other period of time as the States concerned may agree. To this end, the parties concerned shall co-operate, as necessary, in the disposal of the wastes in an environmentally sound manner”

³⁰⁸ Art 9(4) Basel Convention, “In cases where responsibility for the illegal traffic cannot be assigned either to the exporter or generator or to the importer or disposer, the Parties concerned or other Parties, as appropriate, shall ensure, through co-operation, that the wastes in question are disposed of as soon as possible in an environmentally sound manner either in the State of export or the State of import or elsewhere as appropriate”

³⁰⁹ Ibid Art 9(5), “Each Party shall introduce appropriate national/domestic legislation to prevent and punish illegal traffic. The Parties shall co-operate with a view to achieving the objects of this Article”

technology which were later discovered to cause extensive damage to the ozone layer clearly illustrates the problem.

To prevent as far as possible adverse effects on human health and the environment in the disposal of hazardous wastes and other wastes, the Convention provides for international co-operation³¹⁰, the sharing of information and the monitoring of the effects of hazardous wastes³¹¹, the development of low-waste technology³¹², the transfer of technology³¹³, co-operation in developing technical guidelines³¹⁴, assistance to developing countries³¹⁵, and the development of public awareness³¹⁶.

Reference may be made to the provisions of article 10(2)(c) and (d) where co-operation between the Parties is made subject to their national laws, regulations and policies. This may be considered to compromise co-operation since national laws, regulations and policies may restrict co-operation especially in the transfer of

³¹⁰ Art 10(1) Basel Convention, “The Parties shall co-operate with each other in order to improve and achieve environmentally sound management of hazardous wastes and other wastes.

³¹¹ Ibid Art 10(2), “To this end, the Parties shall:

- (a) Upon request, make available information, whether on a bilateral or multilateral basis, with a view to promoting the environmentally sound management of hazardous wastes and other wastes, including harmonization of technical standards and practices for the adequate management of hazardous wastes and other wastes;
- (b) Co-operate in monitoring the effects of the management of hazardous wastes on human health and the environment;

³¹² Ibid Art 10(2)(c), “Co-operate, subject to their national laws, regulations and policies, in the development and implementation of new environmentally sound low-waste technologies and the improvement of existing technologies with a view to eliminating, as far as practicable, the generation of hazardous wastes and other wastes and achieving more effective and efficient methods of ensuring their management in an environmentally sound manner, including the safety of the economic, social and environmental effects of the adoption of such new or improved technologies”

³¹³ Ibid Art 10(2)(d), “Co-operate actively, subject to their national laws, regulations and policies, in the transfer of technology and management systems related to the environmentally sound management of hazardous wastes and other wastes. They shall also co-operate in developing the technical capacity among Parties, especially those which may need and request technical assistance in this field;

³¹⁴ Ibid Art 10(2)(e), “Co-operate in developing appropriate technical guidelines and/or codes of practice”

³¹⁵ Ibid Art 10(3), “The Parties shall employ appropriate means to co-operate in order to assist developing countries in the implementations of subparagraphs a, b, c and d of paragraph 2 of Article 4”

³¹⁶ Ibid Art 10(4) Basel Convention, “Taking into account the needs of developing countries, co-operation between Parties and the competent international organisations is encouraged to promote, *inter alia*, public awareness, the development of sound management of hazardous wastes and other wastes and the adoption of new low-waste technologies”

technology which may have commercial and military connotations. However, this was a compromise solution since otherwise, States would not have agreed to the Convention.

Bilateral, Multilateral and Regional Arrangements

The Basel Convention does not prevent Parties from concluding bilateral, multilateral and regional agreements, but such agreements must not derogate from the environmentally sound management of hazardous wastes and other wastes as required by the Basel Convention³¹⁷. Furthermore, the Parties are bound to notify the Secretariat about any agreements, including any agreement already in force between the Parties prior to the coming into force of the Convention³¹⁸. The Parties are also required to co-operate in developing a protocol on the rules and procedures for liability and compensation.

Consultations on Liability

Although no agreement could be reached during the negotiation process on liability and compensation in cases of damage arising from the transboundary movement of hazardous wastes, resolution 3 of the Basel Conference called for the convening of a working group to draft elements which could be included in a future Protocol on liability and compensation. The need for rapid elaboration of a liability protocol was also stressed in a number of subsequent policy statements. It was therefore agreed that the Parties shall co-operate with a view to adopting, as soon as practicable, a protocol setting out appropriate rules and procedures in the field of

³¹⁷ Art 11 Basel Convention, "Notwithstanding the provisions of Article 4 paragraph 5, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries"

³¹⁸ Ibid Art 11(2), "Parties shall notify the Secretariat of any bilateral, multilateral or regional agreements or arrangements referred to in paragraph 1 and those which they have entered into prior to the entry into force of this Convention for them, for the purpose of controlling transboundary movement of hazardous wastes and other wastes which take place entirely among the parties to such agreements. The provisions of this Convention shall not affect transboundary movements which take place pursuant to such agreements provided that such agreements are compatible with the environmentally sound management of hazardous wastes and other wastes as required by this Convention"

liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes³¹⁹. This is a very important provision which led to the adoption of a Protocol in 1999 to address the matter and which will be referred to later.

Transmission of Information

The Chernobyl nuclear disaster, the Seveso dioxin contamination, the Bophal explosion in the Union Carbide factory in India, and other accidents where nuclear and chemical leakages occurred were either covered up for as long as possible, or the contaminant, information and technology to counter its effects was not readily available to those affected. These accidents alerted public and governments opinion about the need to have quick access to information, especially if an accident occurs, so that the necessary steps can be taken to contain the contamination. It was therefore natural for the negotiating Parties to the Basel Convention to agree on the requirement to provide for a provision on the transmission of information.

The Parties to the Basel Convention are bound to report any accident, when it comes to their knowledge, to other States that are most likely to be affected³²⁰. It is true that the Basel Convention refers to and is intended to regulate the transboundary movement of hazardous wastes since such movement can clearly result in widespread contamination in other States through, e.g the atmosphere, rivers and the sea, but the principle has long been established that a State must not knowingly let its territory be used so as to cause harm to another State³²¹. A State has the right to use its territory and resources, but the use must not result in harm to the territory of another State³²².

³¹⁹ Art 12 Basel Convention

³²⁰ Ibid Art 13(1), "The Parties shall, whenever it comes to their knowledge, ensure that, in the case of an accident occurring during the transboundary movement of hazardous wastes or other wastes or their disposal, which are likely to present risks to human health and the environment in other States, those States are immediately informed"

³²¹ The Trail Smelter Arbitration, 1938, 1941, UNRIAA Vol. III 1905; The Corfu Channel Case, ICJ Rep 1947-48, 1949, ICJ Rep (1949) 1

³²² On the principle of *sic utero tuo ut alienum non laedas*

The exchange of information between the Parties on changes in the competent authorities and national definition of hazardous wastes including the limitation or banning of importation of hazardous wastes are to be made through the Secretariat³²³. This is a necessary measure to ensure that the Parties are duly notified and that the Secretariat is kept up to date on the Parties legislation so as to have updated information on the matter and to be more in a position to detect and confirm infringements of Parties legislation.

In order to keep track of the transboundary movements of hazardous wastes and other wastes, Parties are required to forward a yearly report on any transboundary movement of hazardous wastes and other wastes³²⁴, the States involved including

³²³ Art 13(2) Basel Convention, "The Parties shall inform each other, through the Secretariat, of:

- (a) Changes regarding the designation of competent authorities and/or focal points, pursuant to Article 5;
- (b) Changes in their national definition of hazardous wastes, pursuant to Article 3; and, as soon as possible;
- (c) Decisions made by them not to consent totally or partially to the import of hazardous wastes or other wastes for disposal within the area under their national jurisdiction;
- (d) Decisions taken by them to limit or ban the export of hazardous wastes or other wastes;
- (e) Any other information required pursuant to paragraph 4 of this Article"

³²⁴ Ibid Art 13(3), "The Parties, consistent with national laws and regulations, shall transmit, through the Secretariat, to the Conference of the Parties established under Article 15, before the end of each calendar year, a report on the previous calendar year, containing the following information:

- (a) Competent authorities and focal points that have been designated by them pursuant to Article 5;
- (b) Information regarding transboundary movement of hazardous wastes or other wastes in which they have been involved, including:
 - (i) The amount of hazardous wastes and other wastes exported, their category, characteristics, destination, any transit country and disposal methods as stated on the response to notification
 - (ii) The amount of hazardous wastes and other wastes imported, their category, characteristics, origin, and disposal methods;
 - (iii) Disposal that did not proceed as intended;
 - (iv) Efforts to achieve a reduction of the amount of hazardous wastes or other wastes subject to transboundary movement;
- (c) Information on the measure adopted by them in implementation of this Convention;
- (d) Information on available qualified statistics which have been compiled by them on the effects on human health and the environment of the generation, transportation, and disposal of hazardous wastes or other wastes;
- (e) Information concerning bilateral, multilateral and regional agreements and arrangements entered into pursuant to Article 11 of this Convention;
- (f) Information on accidents occurring during the transboundary movement of hazardous wastes and other wastes and on the measures undertaken to deal with them;
- (g) Information on disposal options operated within the area of their national jurisdiction;
- (h) Information on measures undertaken for development of technologies for the reduction and/or elimination of production of hazardous wastes and other wastes, and

transit States, the amount and disposal methods, other statistics, information on agreements, accidents, development of technologies for wastes reduction/elimination, and such other matters as they deem relevant.

This information has to be consistent with the Parties national laws, which may somewhat limit the information due to national and commercial reasons, but it is a significant step which may make it more possible for Parties and the Secretariat to keep track of the transboundary movement and disposal of hazardous wastes and other wastes. Copies of each notification of transboundary movement of hazardous wastes or other wastes shall be sent to the Secretariat where the State concerned considers that its environment may be affected³²⁵.

Financial Aspects

It was recognized that different regions and sub-regions may have different requirements and may be in a state of development different from that of other regions. Requirements for training and the transfer of technology and funding may also be different. The Convention provides that funding of these activities is to be established on a voluntary basis³²⁶.

It would have been preferable had the Convention established criteria depending, e.g. on the amount of wastes generated within the territory of Party, upon which a specific contribution by the originator of the hazardous wastes and other wastes has to be deposited in a fund administered by the Secretariat, but it would have probably met with opposition by those Parties within whose territory hazardous wastes and other wastes are generated.

(i) Such other matters as the Conference of the Parties shall deem relevant”

³²⁵ Art 13(4) Basel Convention, “The Parties, consistent with national laws and regulations, shall ensure that copies of each notification concerning any given transboundary movement of hazardous wastes or other wastes, and the response to it, are sent to the Secretariat when a Party considers that its environment may be affected by that transboundary movement has requested that this should be done”

³²⁶ Ibid Art 14(1), “The Parties agree that, according to the specific needs of different regions and sub-regions, regional and sub-regional centres for training and technology transfers regarding the management of hazardous wastes and other wastes and the minimization of their generation should be established. The parties shall decide on the establishment of appropriate funding mechanisms of a voluntary nature”

However, this does not stop the Parties from adopting such measures as the Convention and obligations of the Parties including the hazards to human health and the environment are further recognized and developed over time. Indeed, the Convention later refers to a Conference of the Parties which has the competence to decide on the contribution of the Members, but specific contribution by the generator of wastes would have been more appropriate to prevent the generation of hazardous wastes and other wastes and the problems of their disposal.

It was also realized that different regions are in a different state of development. For this reason, States within the region may not have the necessary funds to take the necessary action to contain and eliminate hazards resulting from accidents occurring from the transboundary movement of hazardous wastes and other wastes. For these reasons, the Convention requires Parties to develop a revolving fund so that the necessary funds will be available in such cases³²⁷.

Again, it would have been preferable for the Convention to established criteria upon which the generator of hazardous wastes and other wastes would have had to make a specific minimum contribution to the fund, but this may later be introduced once the Parties are more confident in the application of the Convention.

Conference of the Parties

The Basel Convention provides for the setting up of a Conference of the Parties³²⁸. Extraordinary meetings of the Conference of the Parties are required to be held³²⁹, while rules are to be adopted by the Parties at the Conference³³⁰. Other

³²⁷ Art 14(2) Basel Convention, “The Parties shall consider the establishment of a revolving fund to assist on an interim basis in case of emergency situations to minimize damage from accidents arising from transboundary movements of hazardous wastes and other wastes or during the disposal of those wastes”

³²⁸ Ibid Art 15(1), “A conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the executive director of UNEP not later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting”

³²⁹ Ibid Art 15(2), “Extraordinary meetings of Conference of the Parties shall be held at such other times as may be deemed by the Conference, or at the written request of any Party, provided that, within six

obligations of the Conference of the Parties are specified in the Convention such as the protection and preservation of the marine environment³³¹ and the promotion of appropriate policies and strategies to minimize hazards to human health and the environment³³².

The Convention also specifies what observers may attend meetings of the Conference of the Parties³³³. This is a very important provision since such organs and organisations may have relevant information and developments on the effects on human health and the environment that would be better presented and discussed at the Conference rather than if it is presented to individual Parties. The Convention also imposes further obligations on the Conference³³⁴.

months of the request being communicated to them by the Secretariat, it is supported by at least one third of the Parties”

³³⁰ Art 15(3) Basel Convention, “The Conference of the Parties shall by consensus agree upon and adopt rules of procedure for itself or for any subsidiary body it may establish, as well as financial rules to determine in particular the financial participation of the Parties under this Convention”

³³¹ Ibid Art 15(4), “The Parties at their first meeting shall consider any additional measures needed to assist them in fulfilling their responsibilities with respect to the protection and preservation of the marine environment in the context of this Convention”

³³² Ibid Art 15(5), “The Conference of the Parties shall keep under continuous review and evaluation the effective implementation of this Convention, and, in addition, shall:

- (a) Promote the harmonisation of appropriate policies, strategies and measures for minimising harm to human health and the environment by hazardous wastes and other wastes;
- (b) Consider and adopt, as required, amendments to this Convention and its annexes, taking into consideration, *inter alia*, available scientific, economic and environmental information;
- (c) Consider and undertake any additional action that may be required for the achievement of this Convention in the light of experience gained in its operation and in the operation of the agreements and arrangements envisaged in Article 11;
- (d) Consider and adopt protocols as required; and
- (e) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention”

³³³ Ibid Art 15(6), “The United Nations, its specialised agencies, as well as any State not Party to this Convention, may be represented as observers at meetings of the Conference of the Parties. Any other body or agency, whether national or international, governmental or non-governmental, qualified in the fields relating to hazardous wastes or other wastes which has informed the Secretariat of its wish to be represented as an observer at a meeting of the Conference of the Parties, may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties”

³³⁴ Ibid Art 15(7), “The Conference of the Parties shall undertake three years after entry into force of this Convention, and at least every six years thereafter, an evaluation of its effectiveness and, if deemed necessary, to consider the adoption of a complete or partial ban on transboundary movements of hazardous wastes and other wastes in light of the latest scientific, environmental, technical and economic information”

Functions of the Secretariat

In view of the obligations imposed on the Secretariat by the Convention, it was in order for the Convention to specify the wide-ranging functions of the Secretariat. These include the arrangement of meetings³³⁵; the preparation and transmission of reports of information received³³⁶; the preparation and presentation of reports on its functions³³⁷; ensure the necessary coordination with relevant international bodies³³⁸; to communicate with the Competent Authorities³³⁹; compile, receive and convey information³⁴⁰; communicate information between the parties³⁴¹; communicate information on consultants and consulting firms having the necessary technical competence³⁴²; assist parties to identify illegal traffic³⁴³; co-operate with Parties and

³³⁵ Art 16(1)(a) Basel Convention, “The functions of the Secretariat shall be:

(a) To arrange for and service meetings provided for in Articles 15 and 17”

³³⁶ Ibid Art 16(1)(b), “To prepare and transmit reports based upon information received in accordance with Articles 3, 4, 6, 11 and 13 as well as upon information derived from meetings of subsidiary bodies established under Article 15 as well as upon, as appropriate, information provided by relevant intergovernmental and non-governmental entities”

³³⁷ Ibid Art 16(1)(c), “To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties”

³³⁸ Ibid Art 16(1)(d), “To ensure the necessary coordination with relevant international bodies, and in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of its functions”

³³⁹ Ibid Art 16(e), “To communicate with focal points and Competent Authorities established by the Parties in accordance with Article 5 of this Convention”

³⁴⁰ Ibid Art 16(1)(f), “To compile information concerning authorised national sites and facilities of Parties available for the disposal of their hazardous wastes and other wastes and to circulate this information among Parties”

³⁴¹ Ibid Art 16(1)(g), “To receive and convey information from and to Parties on :

- sources of technical assistance and training;
- available technical and scientific know-how;
- surces of advice and expertise; and
- availability of resources

with a view to assisting them, upon request, in areas such as:

- the handling of the notification system of this Convention;
- the management of hazardous wastes and other wastes
- environmentally sound technologies relating to hazardous wastes and other wastes; such as low-and-non-waste technology;
- the assessment of disposal capabilities and sites;
- the monitoring of hazardous wastes and other wastes; and
- emergency responses”

³⁴² Ibid Art 16(1)(h), “To provide Parties, upon request, with information on consultants or consulting having the necessary technical competence in the field, which can assist them to examine a notification for a transboundary movement, the concurrence of shipments of hazardous wastes with the relevant notification, and/or the fact that the proposed disposal facilities for hazardous wastes or other wastes are environmentally sound, when they have reason to believe that the wastes n question will not be managed in an environmentally sound manner. Any such examination would not be at the expense of the Secretariat”

international organisations in providing equipment³⁴⁴; and other functions as required by the Conference of the Parties³⁴⁵.

The Convention also provides that the Secretariat functions are to be carried by UNEP on an interim basis³⁴⁶, and that the Secretariat is to be designated from the Parties at the first meeting of the Conference of the Parties³⁴⁷.

Amendments to the Convention

In order to be effective, a Convention has to be dynamic, that is, capable of being updated to take into account technological and other developments relative to its field of interest. The Basel Convention provides for the means for continuous updating to take account of relevant scientific and technical considerations. It also provides for

³⁴³ Art 6(1)(i) Basel Convention, “To assist Parties upon request in their identification of cases of illegal traffic and to circulate immediately to the Parties concerned any information it has received regarding illegal traffic”. It is to be noted that The Third meeting of the Conference of the Parties requested the Parties to co-operate with each other and the Secretariat on alleged cases of illegal traffic in order to:

- (a) promulgate or develop stringent national legislation on the control of transboundary movements of hazardous wastes;
- (b) incorporate in their legal systems appropriate sanctions or penalties for the illegal traffic in hazardous wastes;
- (c) provide the Secretariat with replies regarding reported cases of illegal traffic;
- (d) extend co-operation with Interpol and the Secretariat in order to assist Parties in developing national legislation to deal with illegal traffic;
- (e) co-operate with regional commissions, secretariats, non governmental organisations, industry, private sector and World Customs Organisation (WCO);
- (f) improve control and monitoring of illegal traffic;
- (g) train, in co-operation with WCO, IMO, Interpol etc., customs and port officers, judiciary personnel and police forces;
- (h) prevent and monitor illegal traffic with the help of the regional/Sub-regional Centres for training and Technology Transfer established under the Basel Convention.

³⁴⁴ Ibid Art 16(1)(j), “To co-operate with Parties and with relevant and competent international organisations and agencies in the provision of experts and equipment for the purpose of rapid assistance to States in the event of an emergency situation”

³⁴⁵ Ibid Art 16(1)(k), “To perform such other functions relevant to the purposes of this Convention as may be determined by the Conference of States”

³⁴⁶ Ibid Art 16(2), “The Secretariat functions will be carried out on an interim basis by UNEP until the completion of the first meeting of the Conference of the Parties held pursuant to Article 15”

³⁴⁷ Ibid Art 16(3), “At the first meeting, the Conference of the Parties shall designate the Secretariat from among those existing competent intergovernmental organisations which have signified their willingness to carry out the Secretariat functions under this Convention. At this meeting, the Competence of Parties shall also evaluate the implementation by the interim Secretariat of the functions assigned to it, in particular under paragraph 1 above, and decided upon the structures appropriate for those functions”

any Party to propose amendments to the Convention while Parties to a Protocol may propose amendments to the Protocol³⁴⁸.

The parties are required to make every effort to reach an agreement on proposed amendments. The Convention requires three-fourths of the Parties to have accepted, ratified or approved of the Convention to enter into force³⁴⁹, while a protocol requires a two-thirds majority³⁵⁰. Instruments related to the Convention shall be deposited with the Depository³⁵¹, while Parties present means those who had cast their vote³⁵².

Adoption and Amendments of Annexes

The Convention also provides for the procedure to be followed for amendments to the Annexes³⁵³. The annexes to the Convention and any annexes to protocols are considered to form part of the Convention or part of the protocol respectively. The procedure for additional annexes to the Convention and protocols is

³⁴⁸ Art 17(1) Basel Convention, “Any Party may propose amendments to this Convention and any Party to a protocol may propose amendments to that protocol. Such amendments shall take due account, *inter alia*, of relevant scientific and technical considerations;

(2) Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question”

³⁴⁹ Ibid Art 17(3), “The Parties shall make every effort to reach an agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority of the Parties present and voting at the meeting, and shall be submitted by the Depository to all Parties for ratification, approval, formal confirmation or acceptance”

³⁵⁰ Ibid Art 17(4), “The procedure mentioned in paragraph 3 above shall apply to amendments to any protocol, except that a two-thirds majority of the Parties to that protocol present and voting at the meeting shall suffice for their adoption”

³⁵¹ Ibid Art 17(5), “Instruments of ratification, approval, formal confirmation or acceptance of amendments shall be deposited with the Depository. Amendments adopted in accordance with paragraphs 3 or 4 above shall enter into force between Parties having accepted them on the ninetieth day after the receipt by the Depository of their instrument of ratification, approval, formal confirmation or acceptance by at least three-fourths of the Parties who accepted them or by at least two thirds of the Parties to the protocol concerned who accepted them, except as may otherwise be provided in such protocol. The amendment shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval, formal confirmation or acceptance of the amendments”

³⁵² Ibid Art 17(6), “For the purpose of this Article, ‘Parties present and voting’ means Parties present and casting an affirmative or negative vote”

³⁵³ Ibid Art 18(1), “The annexes to this Convention or to any protocol shall form an integral part of this Convention or of such protocol, as the case may be and, unless expressly provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to scientific, technical and administrative matters”

also specified in the Convention³⁵⁴, as is the procedure to be used for their adoption³⁵⁵ and their entry into force³⁵⁶.

Verification of Breaches of Obligations and Settlement of Disputes

The Convention provides for the verification of breaches of obligations of the Parties where a Party has reason to believe that another Party is acting or has acted in breach of its obligations under the Convention³⁵⁷. The procedure to be followed in the case of disputes is also specified in the Convention. The Parties concerned shall try to settle their dispute through negotiations or other peaceful means, or they may submit the dispute to the ICJ or to arbitration, but failure to reach agreement on submission to the ICJ or arbitration does not absolve the Parties from trying and reach agreement through negotiation or other peaceful means³⁵⁸. When ratifying, accepting, approving

³⁵⁴ Art 18(2) Basel Convention, “Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to a protocol:

- (a) Annexes to this Convention and its protocols shall be proposed and adopted according to the procedure laid down in Article 17, paragraphs 2, 3 and 4;
- (b) Any Party that is unable to accept an additional annex to this Convention or an annex to any protocol to which it is a Party shall so notify the Depositary, in writing, within six months from the date of the communication of the adoption by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for a previous declaration of objection and the annexes shall thereupon enter into force for that Party;
- (c) On the expiry of six months from the date of the circulation of the communication by the Depositary, the annex shall become effective for all Parties to this Convention or to any protocol concerned, which have not submitted a notification in accordance with the provision of subparagraph (b) above”

³⁵⁵ Ibid Art 18(3), “The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to a protocol. Annexes and amendments thereto shall take due account, *inter alia*, of relevant scientific and technical considerations”

³⁵⁶ Ibid Art 18(4), “If an additional annex or an amendment to an annex involves an amendment to this Convention or to any protocol, the additional annex shall not enter into force until such time the amendment to this Convention or to the protocol enters into force”

³⁵⁷ Ibid Art 19, “Any Party which has reason to believe that another Party is acting or has acted in breach of its obligations under this Convention may inform the Secretariat thereof, and in such an event, shall simultaneously and immediately inform, directly or through the Secretariat, the Party against whom the allegations are made. All relevant information should be submitted by the Secretariat to the Parties”

³⁵⁸ Ibid Art 20(2), “If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute, if the Parties to the dispute agree, shall be submitted to the International Court of Justice or to arbitration under the conditions set out in Annex VI on Arbitration. However, failure to reach common agreement on submission of the dispute to the International Court of Justice or to arbitration shall not absolve the Parties from the responsibility of continuing to seek to resolve it by means referred to in paragraph 1”

or formally confirming or acceding to the Convention, the Parties may declare their acceptance of the competence of the ICJ or to arbitration³⁵⁹.

Signature, Ratification, Acceptance, Formal Confirmation or Approval

The Convention was opened for signature with Namibia being represented by the UN Council for Namibia. It was also opened for signature by political and/or economic organisations³⁶⁰ and for ratification, acceptance or approval³⁶¹. A political / economic integration organisation which becomes a Party to the Convention will still be bound notwithstanding that none of its members may be a party³⁶². Furthermore, political and/or economic integration organisations shall declare the extent of their competence with respect to matters governed by the Convention³⁶³.

A very important aspect in this provision is that the member States and the organisation have to decide on their competences and on who will exercise voting rights. It would have been inequitable if the Member States could exercise concurrent voting with the organisation, since they would in effect be increasing their voting

³⁵⁹ Art 20(3) Basel Convention, “When ratifying, accepting, approving, formally confirming or acceding to this Convention, or at any time thereafter, a State or political and/or economic integration organisation may declare that it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:

- (a) submission of the dispute to the International Court of Justice; and/or
- (b) arbitration in accordance with the procedures set out in Annex VI.

Such declaration shall be notified in writing to the Secretariat which shall communicate it to the Parties.

³⁶⁰ Ibid Art 21, “This Convention shall be open for signature by States, by Namibia, represented by the United Nations Council for Namibia, and by political and/or economic integration organisations, in Basel on 22 March 1989, at the Federal Department of Foreign Affairs of Switzerland in Berne from 23 March 1989 to 30 June 1989 and at United Nations Headquarters in New York from 1 July 1989 to 22 March 1990”

³⁶¹ Ibid Art 22(1), “This Convention shall be subject to ratification, acceptance or approval by States and by Namibia, represented by the United Nations Council for Namibia, and to formal confirmation or approval by political and/or economic integration organisations. Instruments of ratification, acceptance, formal confirmation, or approval shall be deposited with the depositary”

³⁶² Ibid Art 22(2), “Any organisation referred to in paragraph 1 above which becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organisations, one or more of whose member States is a Party to the Convention, the organisation and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organisation and the member States shall not be entitled to exercise rights under the Convention concurrently”

³⁶³ Ibid Art 22(3), “In their instruments of formal confirmation or approval, the organisations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention. These organisations shall also inform the depositary, who will inform the Parties of any substantial modification in the extent of their competence”

power in relation to other States Parties to the Convention who are not members of a political and/or economic integration organisation. Furthermore, they could lead to the adoption or prevent the Conference of the Parties from adopting any measure which would otherwise have or not have been adopted. This is pre-empted by Article 22(2) of the Convention.

Accession and the Right to Vote

Accession to the Convention is also open to States and political and/or economic integration organisations.³⁶⁴ These organisations have to declare the extent of their competence with respect to matters governed by the Convention³⁶⁵ while their voting rights are also specified³⁶⁶. While each contracting Party has one right to vote³⁶⁷, political and/or economic integration organisations have a number of votes equal to the number of their member States which are parties to the Convention³⁶⁸.

Had these organisations have a vote equal to the number of their member States without these States being Parties to the Convention, the same argument already referred to would also apply. These organisations are therefore limited to a number of votes equal to the number of their member States who are also Parties to the Convention.

³⁶⁴ Art 23 (1) Basel Convention, “This Convention shall be open for accession by States, by Namibia, represented by the United Nations Council for Namibia, and by political and/or economic integration organisations from the day after the date on which the Convention is closed for signature. The instrument of accession shall be deposited with the Depositary”

³⁶⁵ Ibid Art 23(2), “In their instruments of accession, the organisations referred to in paragraph 1 above shall also declare the extent of their competence with respect to the matters governed by the Convention. These organisations shall also inform the depositary of any substantial modification in the extent of their competence”

³⁶⁶ Ibid Art 23(3), “The provisions of Article 22, paragraph 2, shall also apply to political and/or economic integration organisations which accede to this Convention”

³⁶⁷ Ibid Art 24(1), “Except as provided in paragraph 2 below, each contracting Party to this Convention shall have one vote”

³⁶⁸ Ibid Art 24(2), “Political and/or economic integration organisations, in matters within their competence, in accordance with Article 22, paragraph 3, and Article 23, paragraph 2, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to the Convention or the relevant protocol. Such organisations shall not exercise their right to vote if their member States exercise theirs, and vice-versa”

Entry into Force, Reservations and Declarations, Withdrawal

The Convention provided that it would enter into force following the deposit of the twentieth ratification, acceptance, formal confirmation approval or accession³⁶⁹. It entered into force three years later on 5th May 1992. The entry into force of the Convention for States and political and/or economic integration organisations which ratify, accept, approve or formally confirms the Convention would be the ninetieth day after the deposit of the relevant instrument³⁷⁰, but such instruments deposited by political and/or economic integration organisations is not counted as additional to that of its member States³⁷¹.

One of the most important and valid points of the Convention in the control of transboundary movement of hazardous wastes and other wastes and the prevention of illegal traffic in such wastes is the prohibition to make any reservations or exceptions to the Convention³⁷². States must either accept it as it is with all its rights and obligations or not become Parties. If Parties were able to make reservations or exceptions, they would be able to defeat the objectives of the Convention since each Party would be able to make reservations to its areas of interest. However, this does not prevent States from making declarations with a view, *inter alia*, that they will harmonize their laws with the provisions of the Convention³⁷³.

³⁶⁹ Art 25(1) Basel Convention, "This Convention shall enter into force on the ninetieth day after the day of deposit of the twentieth instrument of ratification, acceptance, formal confirmation, approval or accession"

³⁷⁰ Ibid Art 25(2), "For each State or political and/or economic integration organisation which ratifies, accepts, approves or formally confirms this Convention or accedes thereto after the date of the deposit of the twentieth instrument of ratification, acceptance, approval, formal confirmation or accession, it shall enter into force on the ninetieth day after the date of deposit by such State or political and/or economic integration organisation of its instrument of ratification, acceptance, approval, formal confirmation or accession"

³⁷¹ Ibid Art 25(3), "For the purpose of paragraphs 1 and 2 above, any instrument deposited by a political and/or economic integration organisation shall not be counted as additional to those deposited by member States of such organisation"

³⁷² Ibid Art 26(1), "No reservations or exception may be made to this Convention"

³⁷³ Ibid Art 26(2), "Paragraph 1 of this Article does not preclude a State or political and/or economic integration organisation, when signing, ratifying, accepting, approving, formally confirming or acceding to this convention, from making declarations or statements, however phrased or named, with a view, *inter alia*, to the harmonisation of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effects of the provisions of the Convention in their application to that State"

Similar to other Treaties and Conventions, the Basel Convention provides for the withdrawal of Parties from the Convention³⁷⁴, while the depositary of the Convention is declared to be the Secretary-General of the United Nations³⁷⁵

1999 Protocol

In 1999, the “Protocol on Liability and Compensation for Damage resulting from the Transboundary Movement of Hazardous Wastes and their Disposal” was adopted. Negotiations had begun in 1993, in response to the concerns of developing countries about their lack of funds and technologies for coping with illegal dumping or accidental spills.

The objectives of the Protocol are to provide for a comprehensive regime for liability as well as adequate and prompt compensation for damage resulting from a transboundary movement of hazardous and other wastes, including accidents, which occur due to illegal traffic in these wastes. This was the first time that a mechanism for assigning responsibility for damage caused by accidental spills of hazardous wastes, was adopted.³⁷⁶

The Protocol provides for financial compensation by the responsible Party or Parties in the event of an accident. Every phase in a transboundary movement, from the generation of wastes to their export, international transit, import and final disposal, is regulated. Interim provisions to cover emergency situations until the Protocol enters into force were also adopted.

³⁷⁴ Art 27(1) Basel Convention, “At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving a written notification to the depositary.

(2) Withdrawal shall be effective one year from receipt of notification by the Depositary, or on such later date as may be specified in the notification”

³⁷⁵ Ibid Art 28, “The Secretary-General of the United Nations shall be the Depositary of this Convention and of any protocol thereto”

³⁷⁶ Klaus Topfer, Speech at Basel, 10 December 1999

CHAPTER FIVE

ANALYSIS

Analysis and Developments

It was recognized that a number of issues falling within the proposed purview of the Basel Convention were already regulated by existing international legal sources. This meant that to prevent duplication, the relevant instruments had to be taken into account by the new Convention to prevent conflicts and overlaps. The Basel Convention addresses this problem in a number of different ways.

In the area of packaging, labeling and transport of hazardous wastes, the Convention establishes basic principles and refers to the ‘accepted international practices and standards’ in the field³⁷⁷. Other provisions call for compliance with ‘relevant rules of international law’, or state that such rules shall not be affected by the Convention, such as navigational rights and freedoms and the definition of illegal traffic³⁷⁸. In other areas, the Basel Conference adopted three resolutions calling upon UNEP to co-operate with IMO and IAEA, respectively, to harmonize the Basel Convention and the legal instruments in question.

Following the adoption of the Basel Convention, the need for its harmonization with other legal instruments was re-iterated by a number of international organizations³⁷⁹. Subsequently, numerous initiatives were taken at the international and regional levels to achieve this harmonization. These efforts were subsequently endorsed, and their continuation encouraged by the Conference of the Parties to the Basel Convention.

The IMO Codes of Conduct on the transport of dangerous goods by sea have

³⁷⁷ Art 4 (7)(b) Basel Convention

³⁷⁸ Ibid Art 4(12), 9(1)(e)

³⁷⁹ E.g. the UN General Assembly (UNGA Resolution 44/226 (22 December 1989) and the UN/ECE’s Inland Transport Committee (Kwiatkowska and Soons, (1993)

been amended to take into account the requirements of the Basel Convention. In response to Resolution 7 of the Basel Conference and a 1989 Resolution of the IMO Assembly, the Maritime Safety Committee and the Marine Environment Committee of the IMO amended the IMDG Code and the BC Code, and the BCH and IBC Codes in November/December 1992, to include provisions on hazardous wastes.

In particular, relevant revisions were made to the sections dealing with prior notification of waste shipments. UNCTDG's Orange Book was amended in 1990 to ensure alignment of the classification of hazardous wastes with that of the Basel Convention. The Conference of the Parties to the Basel Convention endorsed these amendments as being consistent with the requirements of the Convention.

During the initial negotiations, the Basel Conference recognized that the transboundary movement of nuclear waste fell within the sphere of competence of the IAEA and resolved to exclude nuclear wastes from the scope of the Basel Convention. In implementing the Resolution, UNEP participated in the negotiations on the non-binding Code of Practice on the International Transboundary Movement of Radioactive Waste, adopted by the General Conference of the IAEA in September 1990, which embodies most of the principles of the Basel Convention, although in weaker form.

In October 1993, the IAEA General Conference decided to initiate preparations for a convention on the safety of nuclear waste management, even though the timing of this preparatory work was left open. The Conference of the Parties to the Basel Convention welcomed this decision and mandated the Secretariat to cooperate with the IAEA on this issue.

Co-operation with Interpol

In order to ensure as much as possible observance of the Convention, the Basel Convention Secretariat co-operates with Interpol in cases relating to illegal traffic in hazardous wastes. Moreover, both organizations participate in international conferences aimed at raising awareness concerning environmental crime. Such co-

operation is necessary since criminal activities involving hazardous wastes are increasing due to substantial profits of the transactions at the cost of irreparable damage to the environment. The problem of illegal traffic has also been the subject of consideration by the Commission of Human Rights during its 51st, 52nd and 53rd sessions.

Deficiencies

It is true that whatever precautions are taken, every legislation or convention would need refining as the fields of interest which it seeks to regulate develops and problems and deficiencies become apparent. During the negotiations of the Basel Convention, agreement could not be reached on a number of points, which had to be left for later negotiations³⁸⁰. However, subsequent developments such as the work on the liability protocol and the development of the concept of environmentally sound management of hazardous wastes by the Technical Guidelines and the Waste Management Strategy indicate that these deficiencies may be suitably addressed.

One of the Convention's deficiencies is the absence of a distinction between 'recyclable' and 'non-recyclable' wastes, which has long been the object of criticism. The question has significant practical implications in view of the acknowledged benefits and dangers of recycling. While the special characteristics of recyclable wastes may necessitate the adoption of less stringent rules, this could also encourage fake recycling schemes.

One of the problems is that the Convention deals with a highly technical and scientific subject where many States do not have the financial, technical and human resources to check wastes that may be imported within their territories.

A further practical problem is the potential inability of States, especially developing States, to comply with the Convention's fairly complex system of control, monitoring, and exchange of information. Many Parties had not complied with the

³⁸⁰ Schmidt, *Transboundary Movements of Wastes under EC Law: The Emerging Regulatory Framework*, pgs 57-80 (1992)

requirements of submitting reports to the Secretariat, and designating competent authorities and focal points, in time for the second Conference of the Parties. The successful application of the Notification system, in particular, depends on a sophisticated national infrastructure. This presents even the majority of industrialized States with a problem, and borders on the unrealistic in the case of developing States.

The point was brought home by the shipment of 18 tons of wastes containing PCBs from Australia to France on board the vessel Maria Laura in September 1992. Australia did not obtain the prior consent of France (or that of the transit countries) for this transaction, even though both states had by that time acceded to the Basel Convention³⁸¹ and could be considered to have a relatively well-developed infrastructure.

A ban on the transboundary movements of hazardous wastes adopted in 1994 is not likely to be effective, since in common with the application of the Notification procedure, the successful enforcement of the ban requires an effective infrastructure. Compliance with the ban will be difficult to monitor and therefore easy to circumvent, whereas the Notification system, however difficult to apply effectively, at least ensures transparency and allows 'generation to disposal' monitoring of waste transactions as well as rapid intervention in the event of accidents.

A further observation that can be made is that by eliminating the option of legal hazardous waste transactions between different groups of States, the adoption of the ban may, in effect, force the previously legal hazardous waste trade into illegality. This seems to be borne out in part by observations which indicate that illegal schemes for the transfer of hazardous wastes have tended to become more ingenious and elaborate since the adoption of the Basel Convention, and thus more difficult to discover.

³⁸¹ Schmidt, *Transboundary Movements of Wastes under EC Law: The Emerging Regulatory Framework*, pgs 57-80 (1992)

A related problem is that contrary to the intention of some negotiating states, the Convention Secretariat was given very limited substantive supervisory functions. With few exceptions, its functions are limited to coordinating and monitoring. The absence of supervisory authority in the Notification procedure, for example, may be considered a major weakness.

The different situations leading to transboundary movements of hazardous wastes have not yet been sufficiently taken into account. The adoption of the 1994 Decision did provide the basis for different sets of rules governing the relationship between members within the OECD, between non-OECD members, and between the two groups, thus creating a 'two-world system'.

The 1994 Decision goes some way towards addressing the justified concern that the same rules were applicable under the Basel Convention to all countries, regardless of their different situations. On the other hand, the same rules are still applicable to wastes with a high level of toxicity destined for disposal and wastes with a low hazard potential destined for recycling. This inadequacy may be mitigated to some extent by resorting to regional regulation.

The Basel Convention itself³⁸² allows Parties 'to enter into bilateral, multilateral or regional agreements or arrangements regarding transboundary movements of hazardous wastes or other wastes with Parties or non-Parties, provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.'

A relevant question that arises is the extent to which legal instruments adopted in terms of Article 11 should conform to the provisions of the Convention. Article 11

³⁸² Article 11 Basel Convention

(1) states that such agreements are permissible as long as they ‘do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention’.

Article 11 (2) provides that the Basel Convention shall not affect transactions taking place pursuant to such agreements provided that they are ‘compatible with the environmentally sound management of hazardous wastes and other wastes as required by this Convention’. In addition paragraph 1 requires the interests of developing countries to be considered in the conclusion of such agreements.

Earlier drafts of this provision required relevant agreements to be ‘compatible with the aims and purposes’ of the Basel Convention.³⁸³ A draft provision requiring that such agreements ‘shall not be inconsistent with the provisions of this Convention’ was rejected. A proposal by the African group to require such agreements to be ‘in conformity with the provisions of the present Convention’ was also rejected³⁸⁴.

This wording would also have prohibited parties to the Basel Convention from entering into any agreement that was in any respect less stringent than the Basel Convention. It was opposed mainly by industrialized states, which feared that their existing regional legal instruments would not meet this requirement.

In view of this rejection, adopted legal instruments need not conform in detail with the provisions of the Basel Convention. They must only be in conformity with the requirements related to the ‘environmentally sound management’ of hazardous wastes, which is vaguely defined in the Convention³⁸⁵. It could therefore result that any legal instruments providing restrictions for transboundary movements of

³⁸³ Third Revised Draft Convention on the Control of Transboundary Movements of Hazardous Wastes UNEP/WG 186/3

³⁸⁴ Luxembourg revision of the Fifth Revised Draft Convention on the Control of Transboundary Movements of Hazardous Wastes UNEP/WG 190/4

³⁸⁵ Art 2(8) Basel Convention, “‘Environmentally sound management of hazardous wastes and other wastes’ means taking all practical steps to ensure that 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”

hazardous wastes, however vague they are, could satisfy the criteria of being compatible with ‘environmentally sound management’ techniques. This can be considered to be a relatively serious defect in the Convention.

Article 11 - while allowing separate agreements with non-parties to the Basel Convention - entails the danger of weakening the concept of a limited ban or even jeopardizing the aim to ensure compliance with the Convention’s standards by all parties, in particular, since it is difficult to determine the quality of such agreements and States’ compliance with them. On the other hand, Article 11 opens the possibility for the adoption of regional agreements, which may be more stringent than the Basel Convention.

Monitoring of Implementation

The Secretariat, which is charged with specific duties to monitor the implementation and promote the objectives of the Convention, seeks to achieve several objectives³⁸⁶. Furthermore the Secretariat is actively involved in the preparation of national and regional workshops and seminars on the legal, institutional and technical implementation of the Convention. The Secretariat also aims to develop awareness and professional skills among all the actors involved³⁸⁷.

The regional and sub-regional centres for training and technology transfer on the environmentally sound management of hazardous wastes and the minimization of their generation are aimed primarily at strengthening the capacity of governments in the regions to comply with the technical requirements of the environmentally sound management of hazardous wastes as well as with the legal and institutional aspects of the Convention’s implementation.

³⁸⁶ Encourage the adoption of legislation implementing the Convention at national level; Examination of bilateral, multilateral, and regional agreements or arrangements and their conformity with Article 11 of the Convention; Prevent and monitor illegal traffic in hazardous wastes.

³⁸⁷ By Developing awareness of decision-makers, manufacturers, community planners of the issues involved and the options available to address them; training of local specialists to have the capacity to develop and support management and control programmes; training of enforcement and control administration personnel.

Regional or sub-regional centres for Africa, Asia and the Pacific, Latin America and the Caribbean, Central and Eastern Europe have or are going to be established. It is planned that once all the regional centers have been established more activities on technical assistance and training will be undertaken by these centers rather than by the Secretariat.

Enforcement of the Basel Convention

The Convention's effectiveness depends upon its enforcement, which is nevertheless complex due to its multidimensional requirements. The cases referred to shows the need for a proper infrastructure, adequate staffing of trained personnel as well as appropriate logistical support and knowledge of hazardous wastes. From an operational point of view, a properly integrated national enforcement programme requires tracking of hazardous waste shipments, visits to company and other sites, transport control and inspections, sampling and testing, and information exchange.

Despite the provisions of the Convention, which require the State of export to re-import hazardous wastes illegally transported into another State, few governments, either for political or economic reasons, seem keen to implement this provision³⁸⁸.

Certain criteria are also required for the effective implementation of the Convention³⁸⁹, including the training of the necessary personnel³⁹⁰ in specific areas

³⁸⁸ Commission on Human Rights, 54th Session, Item 10, para. 93

³⁸⁹ The existence of a regulatory infrastructure and enforcement that ensures compliance with applicable regulations; adequate sites and facilities for storage of an adequate standard of technology and pollution control to dispose of the hazardous wastes in the way proposed, in particular taking into account the level of technology and pollution control in the exporting State; continuous monitoring of the effects on sites and facilities; action is taken at the site or facility in the case of accidental spillage, and in cases where monitoring gives indication that the disposal of hazardous wastes has resulted in unacceptable emissions; persons involved in the disposal of hazardous wastes are capable and adequately trained; any residues from the recovery of hazardous wastes and portions of uncovered materials should be managed in an environmentally sound manner, including final disposal; evidence of an action plan for emergencies or accidents covering the disposal operations

³⁹⁰ Identification of hazardous wastes; knowledge of the companies' operations; knowledge of the United Nations Recommendations on the Transport of Dangerous Goods; understanding of laboratory results on sampling and testing; familiarities with Notification and Movement Documents, tracking documents, permits, contracts and financial guarantees; statistical information and processing of data provided by the World Customs Organisation; identification of cases of illegal traffic.

and further requirements in difficult areas³⁹¹. The Secretariat further provides assistance in the fields of law enforcement and capacity building depending on each country's specific weaknesses and deficiencies in the implementation of national policies on hazardous wastes. However, further powers would have to be granted to the Secretariat if the Convention is to have the maximum possible effect on the transboundary movement of hazardous wastes.

Co-ordination with Relevant Legal Instruments

The significance of other sources of international law which are relevant to the issue of transboundary movements of hazardous wastes were not only discussed throughout the negotiation process on the Basel Convention, but have been referred to in its preamble³⁹².

Relevant international legal sources were important in two respects. First, a number of existing legal rules served as models for the Convention's provisions. The first two drafts of the Convention, prepared by the UNEP Secretariat, were based to a large extent on the Cairo Guidelines, but also drew on other pertinent legal instruments, namely the EU Council Directives on trans-frontier shipments of toxic and dangerous wastes and the OECD's draft Agreement on Control of Transfrontier Movement of Hazardous Wastes. Accordingly, the relevant rules had considerable influence on the final shape of the Convention. In addition, representatives of these and other international organizations continued to provide relevant input during the deliberations.

Liberalisation of International Markets

The liberalisation and deregulation of international markets, including financial markets, have aided the movement of hazardous wastes from the developed to the

³⁹¹ Tracking down of illegal shipments; development of practical guidelines for sampling liquid and solid hazardous wastes that could be harmonized at regional level; agreement on which hazardous wastes to be monitored as a matter of priority; thorough company visits; way of getting up-to-date information on active movements of hazardous wastes; time necessary for analysing samples, interpretation of laboratory results.

³⁹² Opening paras. 12-16,22 Basel Convention

developing States by facilitating access to credit and the removing of licensing conditions and other restrictions. As a result, Transnational corporations enjoy greater freedom to set up hazardous wastes generating operations in States where environmental legislation is non-existent, rudimentary, or not enforced, owing to political, economic and social constraints in the State in question. They provide work in States which lack specialized human and financial resources. The most lucrative transactions are made in States suffering from economic stagnation, high unemployment and high external debt, offering opportunities for industries with high manpower low technology requirements.

Lack of Information

For many developing States, the lack of specialized databases and information banks, properly equipped laboratories, sufficiently skilled human and financial resource, makes the identification of some of the substances entering the country very difficult. In many instances, offers made by waste traders either omit key information or give false information. When accidents occur, information vital to the victims for their protection is either withheld, falsified, supplied late or incomplete, with Government authorities claiming reasons of national security and transnational corporations claiming commercial confidentiality.

Practice shows that ignorance, negligence, fraudulent practices including false laboratory analysis reports, consignment documents, Bills of lading, permits, and bribery of officials at key points are resorted to in order to facilitate the transboundary movement of hazardous wastes. The lack of the necessary administrative infrastructure, including civil and criminal sanctions in developing States allow those who resort to such practices to escape with impunity. Traffic in toxic products has also been closely linked to arms, nuclear materials and drugs trafficking.

As well as discrimination on the grounds of race or of membership of a social, ethnic, political or cultural group, what is known as “ecological” discrimination also occurs, in that wastes are buried in the territories of developing States and in areas

inhabited by disadvantaged groups, migrants, indigenous peoples or racial, religious, linguistic or other minorities. Moreover, these population groups are excluded from the process of environmental decision-making, monitoring and follow-up. They usually lack the capacity to initiate judicial proceedings or to obtain any other form of administrative or legal redress

Relationship with other Legal Instruments

In view of the relevance of similar legal instruments to the Basel Convention, it is worthwhile to analyse the relationship between them and assess whether they can supplement each other in practice. Article 11 of the Basel Convention addresses two types of legal instruments, termed ‘agreements’ and ‘arrangements’ respectively. The term ‘agreement’ refers to a convention or treaty concluded between two or more states.³⁹³ The term ‘arrangement’ is a wider term and includes instruments such as the waste management policy of the EU and the OECD waste management system.

Other Legal Instruments

Several other international agreements or arrangements relate to the transboundary movement of hazardous wastes, such as:

- (a) The Convention to Ban the Import into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes Within the South Pacific Region (Waigani Convention, July 1995);
- (b) The Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement and Management of Hazardous wastes within Africa (January 1991);
- (c) The Protocol of the Southeast Pacific Countries on the Control of the Transboundary Movement of Noxious Wastes and their Disposal;
- (d) The Central American Agreement on the Transboundary Movement of Hazardous Waste;

³⁹³ Vienna Convention on the Law of Treaties, Article 2(1)(a)

- (e) The Protocol for the Protection of the Mediterranean Sea against Pollution resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil;
- (f) The OECD Council Decisions concerning the control of transfrontier movements of wastes; the Council of the European Communities Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community; and
- (g) The Lome' IV ACP-EEC Convention.

In addition, there are several Bilateral Agreements, including:

- a) The Agreement between the Government of Canada and the Government of the United States of America concerning the Transboundary Movement of Hazardous Waste;
- b) The Agreement of Cooperation between the United States of America and the United Mexican States Regarding the Transboundary Shipments of Hazardous Wastes and Hazardous Substances; and
- c) The Agreement between the Government of the Kingdom of Sweden and the Government of the Kingdom of Morocco on the Control of the Transboundary Movements of Toxic Wastes and Other Wastes for Recovery Operations.

The Waigani Convention

In April 1995 the South Pacific Forum members concluded a Convention³⁹⁴ banning of importation into Forum Island States of hazardous and radioactive wastes and to control the transboundary movement and management of hazardous and radioactive wastes within the South Pacific region. The Parties resolved to prohibit the importation into the South Pacific of hazardous and radioactive wastes generated in other States³⁹⁵ and to regulate and facilitate³⁹⁶ the environmentally sound management of such wastes that are generated within the region by Member States³⁹⁷.

³⁹⁴ On 16.09.1995 in Waigani, Papua New Guinea

³⁹⁵ Art 4 Waigani Treaty

The entry into force of the Waigani Convention requires 10 ratifications³⁹⁸. It imposes stringent obligations designed to protect human health and the environment of vulnerable Pacific Island States. The inclusion of a ban on radioactive substances and simplified reporting requirements reflect particular South Pacific concerns and realities where the parties sought to minimize as far as possible, the bureaucracy inherent in the Basel Convention.

The Bamako Convention

African States have characterized the dumping of hazardous wastes as ‘a crime against Africa and the African people’. These States lack the technical expertise and the administrative capabilities to monitor, detect or handle hazardous waste, and thus are susceptible to illegal dumping³⁹⁹. As an example, in 1988, 15,000 tons of toxic ashes were found in Guinea⁴⁰⁰. Furthermore, developing African States have other problems relating to waste. A sizeable part of the African continent is subject to heavy tropical rains that continually penetrate landfills, making it difficult to dispose of Hazardous wastes and other wastes in a sound environmental manner.⁴⁰¹

Moreover, the poorest neighbourhoods are generally located next to hazardous waste disposal sites. The close proximity of these sites can result in the contamination of their water supply with all the attendant dangers to human health. In view of these and other related concerns, the OAU adopted the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa.

The main focus of the OAU was the Basel Convention’s failure to establish a total ban on the exportation of waste. Although the OAU was represented at the Basel

³⁹⁶ Arts 4, 6, 14 Waigani Convention

³⁹⁷ Ibid Art 2, Australia, New Zealand, Federated States of Micronesia, Cook Islands, Niue, Tonga, Fiji, Western Samoa, Nauru and Papua New Guinea

³⁹⁸ Ibid Art 24

³⁹⁹ C. Russell & H. Shearer, Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste,

⁴⁰⁰ Ibid

⁴⁰¹ Ibid

Conference and signed the Convention, it felt that the Basel Convention did not go far enough⁴⁰². The Basel Convention attempted to address OAU concerns by encouraging technological transfers⁴⁰³ and made provision for state, bilateral, multilateral, regional, or economic integration unit agreements which ban the import of all wastes which they defined as being hazardous. This gave the opportunity to the OAU to further advance on the provisions of the Basel Convention by adopting a more stringent convention⁴⁰⁴.

The Bamako Convention applies to all hazardous wastes that are contained in Annex I of the document.⁴⁰⁵ In addition to the items listed, any waste considered to be hazardous by the domestic laws of either the state of import, export, or transit is also considered hazardous under the Bamako Convention. Furthermore, any waste that has characteristic contained in Annex II is considered as hazardous for the Convention's purposes.

In an attempt to ensure that all hazardous wastes are covered by the Bamako Convention, all wastes that have been banned or refused registration by government regulation in consideration of its effects on human health or environmental concern is also hazardous. Unlike the Basel Convention, the Bamako Convention addressed the problem of radioactive wastes and considered it as a hazardous waste for Bamako Convention purposes.

Similar to the Basel Convention, the Bamako Convention imposes various general obligations upon the parties. All parties must take the appropriate measures to ensure that no hazardous waste enters Africa from a non-contracting party. The Convention imposes the duty on the parties to monitor their respective waterways and sea territory to ensure that no dumping occurs therein. To ensure effective monitoring and gathering of data on the hazardous waste industry, each party must report to the

⁴⁰² C. Russell & H. Shearer, *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Wastes*, 1991

⁴⁰³ *Ibid*

⁴⁰⁴ The Bamako Convention

⁴⁰⁵ Bamako Convention, 1991

Secretariat all of the hazardous waste generated for that year.

A unique feature of the Bamako Convention is the unlimited joint and several liability provision.⁴⁰⁶ When a State causes damages due to any violation of the Convention, it can be penalized any monetary sanction that a Trier of Fact determines. In those proceeding, it is not necessary to determine who was at fault for the accident that caused the loss, injury, or damage. Instead, the generator of the waste is strictly liable.

Another distinctive aspect of the Bamako Convention is the approach to prevent pollution. The Convention does not allow for any substances to be released into the air if it has the potential to cause harm. This perspective is unique in that other conventions allow toxic chemicals to be released in low amounts.

Although there is a complete ban on imports from non-parties, African States can export and transfer waste intra-Africa. However, an African State must keep the waste it generates within its territory if it has the ability to successfully manage the waste.

The notification procedures and the settlement of disputes specified in the Bamako Convention are similar to those of the Basel Convention. The rationale is that presumably, the OAU had nothing significant to add to what the Basel Convention had already accomplished in this respect.

In effect, the only major difference between the two Conventions is that the Bamako Convention prohibits all foreign generated wastes from being imported into Africa. The OAU undoubtedly felt that due to the danger involved in the hazardous waste industry, banning imports of waste was the only way to keep the African environment from continuing to deteriorate.

⁴⁰⁶ C. Russell & H. Shearer, *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Wastes*, 1991

Shortcomings in the Basel and Bamako Conventions

Both the Basel and Bamako Conventions are a significant step toward rectifying the problems associated with the transboundary movement of hazardous waste. However, the two Conventions share various shortcomings which may prevent their full effectiveness. Since the Basel and Bamako Conventions are very similar, many of the weaknesses in the Basel Convention also apply to the Bamako Convention.

The Basel Convention defines hazardous waste as wastes that fall into one of the listed categories of wastes in Annex I or as defined by the state of import, export, or transit. There are two lists in Annex I: waste streams and specific substances. The waste streams category only includes general terms such as medical wastes, but medical wastes are not defined.

The Basel Convention lists several specific hazardous substances. Additionally, the substance must also display a characteristic listed in Annex III, which includes, but are not limited to, flammability and corrosivity. No measurement methodologies are specified, while the meaning of flammable is imprecise.

Hazardous wastes mixed with recyclable materials are not referred to in the Convention. A fundamental question that arises is whether waste mixed with hazardous waste can be recycled. As an example, a German company was exempt from the relevant German law concerning hazardous waste disposal when it lawfully mixed wood chips with hazardous waste to create a substitute fuel. Similar types of cases may become more prevalent unless this problem is effectively addressed.

The Bamako Convention has a relatively broad definition of hazardous waste. An issue not addressed by both Conventions is the amount of a toxic chemical in waste materials is required for the waste to be considered hazardous. Since the amount would depend upon the specific toxicity of each particular chemical or element, the difficulty of providing specific levels is clearly appreciated.

The Basel Convention's notification provisions are also questionable. Reference to a particular waste is required before it can be exported. However, if the State of export describes the waste as medical waste, which is all that is required, the importing State may unknowingly be accepting wastes that it is unable to dispose of safely. Furthermore, even if the hazardous elements of the waste are described to the State of import, little is known about the toxicity of 38,000 of the 48,000 chemicals listed with the EPA.

An associated problem is that the importing State has to notify the exporting nation about its ability to handle the waste in an environmentally safe manner. While the Basel Convention relies on developing States to assess their own ability to handle imported wastes, it also recognized that they do not have the necessary expertise to manage or safely dispose of such wastes. It is hard to reconcile the two instances.

There are also problems of enforcement as no enforcement mechanism is provided for. The Convention provides that parties are to negotiate disputes amongst themselves, but if that fails, the parties can refer the matter to the ICJ. The problem is that the ICJ can only have jurisdiction over the parties involved if they consent to its jurisdiction.

In spite of their deficiencies, both the Basel and Bamako Conventions can be considered to have been important milestones in the control of the transboundary movement of hazardous wastes. Agreement has been reached between States with widely different requirements, interests and opinions.

The Bamako Convention has a relatively broad definition of hazardous waste. An issue not addressed by both Conventions is the amount of a toxic chemical in waste materials is required for the waste to be considered hazardous. Since the amount would depend upon the specific toxicity of each particular chemical or element, the difficulty of providing specific levels is clearly appreciated.

The Protocol of Southeast Pacific States

The Southeast Pacific States⁴⁰⁷ agreed on a protocol concerning all transboundary movements and/or the elimination of all hazardous wastes, including radioactive wastes⁴⁰⁸. The Protocol provides that Parties shall take appropriate legal, administrative and other measures to prohibit the import of all type of hazardous wastes, including the radioactive ones, in all their territories, marine waterways and air space. Such import shall be deemed illegal and a criminal act⁴⁰⁹. The protocol also prohibits the dumping of hazardous wastes and radioactive wastes in the seas. Such disposals shall be considered illegal and a criminal act.⁴¹⁰

The Central American Agreement

The Central American Agreement was agreed to and signed by the Parties⁴¹¹ on 11.12.1992 in Panama. The objectives of the Agreement are the control of illegal traffic in hazardous wastes in the Central American Region. The Agreement provides for the adoption of legal, administrative and other appropriate measures to prohibit the importation to and transit through Central America of hazardous wastes from States not Parties to the Agreement. The Parties also undertook not to allow export of hazardous wastes if there is reason that the waste in question will not be managed in an environmentally sound manner. All illegal traffic shall be punished by penal sanctions.

Protocol for the Protection of the Mediterranean Sea

The Conference of Plenipotentiaries for the Protection of the Mediterranean Sea adopted⁴¹² the Protocol for Protection of the Mediterranean Sea against Pollution resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil. The Protocol applies to the entire Mediterranean Sea Area⁴¹³. Harmful or noxious substances and materials resulting from activities covered by the Protocol

⁴⁰⁷ Art 2 Protocol of Southeast Pacific Countries. Chile, Colombia, Ecuador, Panama, Peru

⁴⁰⁸ Ibid Art 1

⁴⁰⁹ Ibid Art 6 (1)

⁴¹⁰ Ibid Art 6 (2)

⁴¹¹ Republics of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama

⁴¹² On 14.10.1994

⁴¹³ Art 2 Protocol for the Protection of the Mediterranean Sea

are divided in two classes which either prohibit their disposal or make them subject to a prior special permit from the competent authority⁴¹⁴. The Parties shall ensure that sanctions are imposed in respect of illegal disposals⁴¹⁵.

OECD Council Decision

On 31 January 1991, the OECD Council approved and adopted a Decision-Recommendation on the Reduction of Transfrontier Movements of Wastes⁴¹⁶. This Decision-Recommendation is applicable to all wastes subject to controls under terms of the Basel Convention and all other wastes subject to transfrontier movements control of the exporting and importing Member States. The Act establishes a distinction between wastes destined for recovery operations and wastes destined for final disposal. Regarding final disposal, it provides that Member States shall, insofar as possible, dispose in their own territory the wastes produced therein.

In terms of another Council Decision⁴¹⁷, the OECD Member countries adopted a three-tiered system to delineate controls to be applied to transfrontier movements of various classes of wastes destined for recovery operations: green tier, amber tier, and red tier.

EEC Regulation No 259/93

On 20 October 1992, a political agreement was entered into between the twelve EEC Ministers of the environment, to control and supervise waste transfers within, into or out of the Community. The objectives of the Regulation⁴¹⁸ on all waste transfers, which has come into force on 6 May 1994, are, first to improve the system of control presently in force within the Community. Member States have decided to base the European Regulation on both the Basel Convention and the OECD Council Decision C(92)39/FINAL.

⁴¹⁴ Art 9 Protocol for the Protection of the Mediterranean Sea

⁴¹⁵ Ibid Art 13

⁴¹⁶ C(90)178/FINAL dated 31 January 1991

⁴¹⁷ C(92)39/FINAL dated 30 March 1992

⁴¹⁸ Regulation (EEC) No 259/93

Exports and imports of waste intended for final disposal are prohibited except towards EFTA⁴¹⁹ States which are Parties to the Basel Convention if both States have given their consent. As for imports, the ACP⁴²⁰ States with no adequate facilities will also be entitled to export their waste into the European Community.

The Lome' Convention

In December 1989, the EC and its member states, and the sixty nine ACP States, concluded the Fourth Lome' Convention⁴²¹ (Lome' IV). Unlike its predecessors, Lome' IV has a chapter on environmental protection. Article 39 deals specifically with the issue of transboundary movements of hazardous wastes. Paragraph 1 of this provision obliges the contracting parties to 'make every effort to ensure that international movements of hazardous waste and radioactive waste are generally controlled'. More specifically, it obliges the EC⁴²² and its members to ban direct or indirect exports of such wastes to ACP states, and the latter to prohibit direct or indirect imports from the EU or any other state.

This provision creates a difference between the two group of states. Whereas ACP states must prohibit imports from the EU and from any other states, EU members must prohibit exports to ACP states only, but may continue to export to third parties. There is also a conflict with the Bamako Convention by prohibiting waste movements between African ACP and non-ACP states that are permissible under the Bamako Convention. There is an exception to the prohibition where an ACP State has sent wastes for processing to a EU Member State. In this case, the processed wastes may be returned to the state of origin.

Since the Convention governs the relationship between the EU Members States, on one hand, and the ACP states as a group, on the other, Article 39 cannot be

⁴¹⁹ European Free Trade Agreement

⁴²⁰ African, Caribbean and Pacific States covered by the Lome' IV Convention

⁴²¹ Adopted at Lome' (Togo) on 15 December 1989

⁴²² Presently the EU

interpreted to prohibit waste transports among the ACP states themselves. Waste movements within the EU and among ACP states are not addressed by the provision.

Article 39(3) of Lome' IV defines 'hazardous wastes' as all wastes covered by Annexes I and II of the Basel Convention, but omits the Basel Convention's additional requirement that the wastes must have one of the hazardous characteristics listed in Annex III. The Lome' Convention therefore covers a wider range of wastes than the Basel Convention, but then fails to permit states to define additional wastes as hazardous by national legislation. Another significant difference between the two treaties is the inclusion of radioactive wastes in Lome' IV.

Article 39 of Lome' IV is the first binding agreement between developed and developing countries prohibiting North-South traffic in hazardous and nuclear wastes. Although adopted a few months after the Basel Convention, the Lome' IV provision went beyond that treaty with respect to the scope of the wastes it covers and the strictness of its measures.

Lome' IV qualifies as an agreement within Article 11 of the Basel Convention. As required by Article 11, the relevant provision of Lome' IV addresses waste transactions exclusively between its contracting parties. Like the Bamako Convention, Lome' IV was concluded prior to the entry into force of the Basel Convention. Unlike the Bamako Convention, Article 39 of Lome' IV does not attempt to establish a comprehensive regime for the transboundary movement of hazardous wastes.

By generally banning transboundary movements of hazardous and nuclear wastes from a group of developed to a group of developing countries, it is in line with Decision II/12 on the ban of hazardous waste export from OECD to non-OECD countries. Indeed, by giving a legally binding form to the ban, it goes further than the Basel Convention's requirement in the relevant matter.

In relationships between parties to both treaties, the general ban imposed by Lome' IV therefore takes precedence over the Basel Convention's control system for transboundary waste movements, and any other provision related to the permissibility of such movements. As the ban is one-sided, the Basel provisions are, however, applicable to the transboundary movements from ACP States to EU Member States which are parties to the Basel Convention. They also apply to wastes processed in a EU member state and being returned to the ACP state of origin, provided that both states are parties to the Basel Convention.

The Basel Convention's provisions pertaining to the control system also apply in relationships between parties to both treaties and parties to the Basel Convention only. However in accordance with Article 4(1)(b) of the Basel Convention, even its non-EU parties must respect the general national import bans adopted pursuant to Lome' IV by ACP states which are Basel parties. Article 4(2)(e) of the Basel Convention does not apply in this case⁴²³ because it envisages only bans adopted under the auspices of political or economic integration organisations as defined by the Basel Convention.⁴²⁴

The ACP group of states does not conform to this definition. However, the distinction is academic as the content of the two provisions is virtually identical. Any import ban enacted pursuant to Lome' IV must be notified to the SBC⁴²⁵. As in the case of the Bamako Convention, this does not extend to wastes covered by the scope of Lome' IV but not the Basel Convention, such as nuclear wastes. Transactions between EU states which are parties to the Basel Convention, and Basel Convention parties which are not parties to Lome' IV, are governed exclusively by the Basel Convention.

Since the Lome' IV provision does not replace the Basel Convention as a regime, those of its provisions which do not relate to the permissibility of hazardous

⁴²³ Unlike the case of the Bamako Convention

⁴²⁴ Art 2 (20)

⁴²⁵ Art 4 (1)(a), 13

waste movements or to the control system are not effected by Lome' IV. They apply as between parties to both treaties, and in relationships between Basel parties and parties to both treaties, but not between parties to both treaties and parties to Lome' IV only. These provisions include the general obligations concerning environmentally sound management of hazardous wastes.⁴²⁶ They also include the provisions envisaging assistance to developing countries i.e. Articles 10 and 13 on international co-operation and exchange of information⁴²⁷, and Article 16 governing the Basel Secretariat's functions as a monitoring and assisting body.

As in the case of the Bamako Convention, this interests Lome' IV parties which are developing States i.e. all ACP states. The Basel Convention provision on illegal traffic⁴²⁸ is applicable in the event that a movement takes place in contravention of the ban imposed by Lome' IV.

Similar to the Bamako Convention, the Basel Convention can thus provide a useful framework for the Lome' IV provision, provided that the Lome' IV parties are also parties to the Basel Convention, as recommended by the 1991 Resolution of the ACP-EU Joint Assembly. Since Lome' IV is in force, and nearly all African ACP States, constituting the vast majority of OAU members, have acceded to it, this provision has the potential to protect Africa against waste imports from Basel Convention parties.

Lome' IV shows that the Basel Convention can be supplemented by fairly simple means. It is not strictly necessary to adopt a separate comprehensive regime at regional level in order to ensure the protection of a particular group of developing or transitional States against imports of foreign hazardous wastes. The Lome' IV provision illustrates that a group of states parties to the Basel Convention can achieve this aim through the stipulation of a collective import ban within the framework of the

⁴²⁶ Art 4 Basel Convention

⁴²⁷ Indirectly referred to in Art 39 (1) of Lome' IV

⁴²⁸ Art 9 Basel Convention

Basel Convention, while relying on the Basel regime for the general rules related to hazardous waste management.

A Maltese Perspective

No cases of transboundary movements of hazardous wastes to or from Malta have been publicized, although Maltese registered ships have been used to transport wastes to other States⁴²⁹. In view of the worldwide illicit practice of trafficking in hazardous wastes along ‘the path of least resistance’, one cannot eliminate the possibility of hazardous substances being the subject of illegal traffic to or from Malta.

It is to be noted that the waste management system in Malta is primitive. Tons of chemicals used by Maltese industries are dumped at the Maghtab landfill where they seep into the ground and leak into the sea⁴³⁰. Chemicals produced by laboratories, clothing companies, food processing plants, pharmaceutical companies and other industries are flushed down the sewage system or else dumped at the Maghtab landfill⁴³¹.

The minimization of the generation of hazardous wastes, in terms of quantity and potential hazard, needs to be urgently and seriously addressed in Malta. As an example, it is estimated that around 286,000 litres of waste oil are changed annually by mechanics. More than half of it is unaccounted for, either going to unidentified collectors and re-used illegally, or else ending up somewhere in the environment⁴³². This is in spite of relevant legislation that has been in force years but is not effectively enforced.

This is clearly against the principles of the Basel Convention, which was ratified by Malta on 19th June 2001. However, it is worthwhile noting that following ratification, Malta has updated its environmental legislation in line with the provisions

⁴²⁹ Refer to Section 3.4.1 Pollution in the Black Sea by Toxic Substances

⁴³⁰ Vince Gauci, Toxic Shame revealed, Malta Today, 6 May 2001

⁴³¹ *ibid.*

⁴³² Karl Schembri, 721,000 litres of waste oil dumped illegally every year, The Malta Independent, 10 June 2001

of the Convention. Indeed, the Environment Protection Act 1991 defines hazardous wastes as:

“Waste which is included in Schedule A to these regulations and any other type of waste which the Director for Environment Protection has reason to believe to be hazardous.”

The ‘List of Hazardous Wastes’ included in Schedule A of the Environment Protection Act is a faithful copy of Annex I of the Basel Convention, hence showing the adoption of the provisions of the Basel Convention in the said Act. However, it is enforcement that is urgently needed, since Malta had enacted relevant environmental legislation years ago but has not proceeded to its effective implementation.

The Basel Convention calls for the treatment and disposal of hazardous wastes as close as possible to their source of generation in an environmental sound manner. Treatment of hazardous wastes through recycling is not very popular at the moment in Malta, where the main argument brought forward is the difficulty of finding suitable markets for these materials. Malta has no such market, or as a Greenpeace member stated, “The market is our own backyard, leaving a toxic legacy that will burden us with a huge cost in both economic and environmental terms”⁴³³.

⁴³³ Caroline Muscat, An opportunity too good to waste, Sunday Times, 13 May 2001

CONCLUSION

UNEP's Executive Director⁴³⁴ said that, " Our industrial economy continues to produce hazardous wastes in enormous quantities. Until we make a full transition to clean production methods, the Basel Convention will remain a vital tool for ensuring the safe management and disposal of these wastes."⁴³⁵

It is evident that the Basel Convention still has great relevance in the present state of events. Since its adoption in 1989, the Convention has been the main international standard which was instrumental for the setting up of an institutional framework for controlling the transboundary movement of hazardous wastes, the development of the criteria for environmental sound management, and a control system based upon prior written notification.

In the next decade, it is envisaged that the Convention will build on this framework by emphasising full implementation and enforcement of treaty commitments, as well as the minimisation of hazardous waste generation. Recognising that the long-term solution to the 'stockpiling' of hazardous wastes is a reduction in their generation - both in terms of quantity and hazardousness - the Ministers' Meeting in December 1999 set out guidelines for the Convention's activities for the subsequent decade⁴³⁶.

The Basel Convention and the relevant existing regional agreements that meet its requirements form the basis of a regime for the control of transboundary movements of hazardous wastes. The development of this regime, which was still at an early stage at the time of adoption of the Basel Convention, has accelerated in the 1990s.

⁴³⁴ Klaus Toepfer

⁴³⁵ Session of Technical Working Group, Geneva, 9th October 2000

⁴³⁶ The guidelines include, Active development and use of cleaner technologies and production methods; Further reduction of the movement of hazardous and other wastes; the prevention and monitoring of illegal traffic; improvement of institutional and technical capabilities - through technology when applicable - especially for developing States and States with economies in transition; further developments in regional and sub-regional centres for training and technology transfer

Considering the current efforts towards regional regulation of hazardous waste management in different regions of the world, the Basel Convention is likely to be supplemented by additional regional rules in the relevant fields. Clearly, the success or otherwise of the Basel Convention regime depends on adherence to the Basel Convention and the relevant regional treaties by a sufficiently large number of states.

Notwithstanding the deficiencies which were referred to but which are the result of the difficult task of reconciling diametrically opposing interests during the negotiation process, the Basel Convention may be considered to be the catalyst for further international and regional instruments to be developed as more data on the dangers involved in the transboundary movement and disposal of hazardous wastes becomes available.

Bibliography

- Adede O. *International Environmental Law Digest*, 1993, Elsevier Press, London, New York, Tokyo
- Akehrst Michael *A Modern Introduction to International Law*, 6th Ed. 1991, Harper Collins, London
- Amato Luciano et. *La Giurisprudenza Italiana Sul Diritto Del Mare*, 1979, Various contributors, Giuffre, Milano.
- Andrassy Juray *International Law and the Resources of the Sea*, 1970, Columbia Univ. Press, New York
- Arden-Clarke C *The General Agreement on Tariffs and Trade, Environmental Protection and Sustainable Development*, (WWF) 1991
- Arkin W, Durant D, Cherni M. *On Impact : Modern Warfare and the Environment – A Case Study of the Gulf War*, 1991, Greenpeace
- Ballenegger Jacques *La Pollution en droit international*, 1975, Librerie DROZ, Geneve
- Bates J, Benson C. *Marine Environmental Law*, 1993, LLP
- Birds John *Modern Insurance Law*, 3rd ed. 1996, Sweet & Maxwell, London
- Birnie Patricia & Boyle Alan E *International Law and the Environment*, 1992, Oxford University Press, UK
Basic Documents o International Law and the Environment, 1992, Oxford University Press, UK
- Brownlie Ian *Basic Documents in International Law*, 3rd ed.1985 Clarendon Press, Oxford
Principles of Public International Law, 4th ed. 1990, Clarendon Press, Oxford
- Brubaker D. *Marine Pollution and International Law: Principles and Practice*, 1993 Belhaven Press, London
- Burhenne W.E. *International Environmental Soft Law: Collectuion of Relevant Instruments*, Martinus Nijhoff, Dordrecht, Boston

- Campiglio L et. al. *The Environment after Rio : International Law and Economics*, 1993, Graham & Thornton/Martinus Nijhoff, London
- Cassese Antonio *International Law in a Divided World*, 1994, Clarendon Press, Oxford
- Chorley and Giles *Shipping Law*, 8th ed. 1997, Gaskell-Debattista-Swatton, Pitman, Glasgow
- Couper A, Gold E. *The Marine Environment and Sustainable Development: Law, Policy and Science*, 1993, (Honolulu: The Law of the Sea Institute / University of Hawaii)
- Cusine Douglas J et. *The Impact of Marine Pollution*, 1980, Helm Ltd, London
- Demko G, Young O. *Global Environmental Change and International Governance*, 1993 UN University Press, Tokyo
- De Smith *Constitutional and Administrative Law*, 1987, 5th ed. Profs Stanley de Smith, Profs Harry Street & Rodney Brazier (Senior lecturer), Pelican Books, London
- Ditzel Peter *Planet Earth: Beyond Repair?* 1990
- Giuffre *International Environmental Law for the Antarctic*, 1992 Giuffre, Milano, "The Madrid Protocol on the Protection of the Antarctic Environment" by F Francioni
- Harris D.J. *Cases and Materials on International Law*, 4th ed. 1991, Sweet and Maxwell, London
- Hohmann H. (ed) *Basic Documents of International Environmental Law*, 1992
- Hoog G, Steinmetz A (ed) *International Conventions on Protection of Humanity and Environment*, 1993, W de Gruyter, Berlin/New York
- Kiss Alexandre *The International Control of Transboundary Movement of Hazardous Wastes*, 1991
- Lloyds London Press *The Ratification of Maritime Conventions*, LLP, London, various editions

- McArdle A.D. *International Ship Arrest: A Practical Guide*, 1988. Lloyds of London Press
- Metaxas B.N. *Flags of Convenience*, 1985, Gower, England
- Nollkaemper A *The Legal Regime of Transboundary Water Pollution: Between Discretion and Constraints*, 1993, Dordrecht
- O'Connell D.P. *The International Law of the Sea*, Vol. 1, 2, 1982, edited by I. Shearer, Clarendon Press, Oxford
- Ott David H. *Public International Law in the Modern World*, 1987, Pitman, London
- Power Vincent *EC Shipping Law*, 1992, LLP, London
- Qing-nan Meng *Land-Based Marine Pollution*, 1987, Kluwer, London
- Russell C & Shearer H. *Comparative Analysis of the Basel and Bamako Conventions on Hazardous Waste*, 1991
- Scovazzi Tullio *Elementi Di Diritto Internazionale Del Mare*, 2nd ed. 1994, Giuffre, Milano
- Simpkins J & Williams J.I. *Advanced Biology*, 1980
- Smith Brian D. *State Responsibility and the Marine Environment*, 1988, Clarendon Press, Oxford
- Starke J.G. *Introduction to International Law*, 10th ed. 1989, Butterworths, London
- Sprankling John G. & Weber Gregory S. *The Law of Hazardous Wastes*, 1997, West Publishing Company, St. Paul, Minn
- Strahler Arthur & Strahler Alan *Environmental Geoscience : Interaction between Natural Systems and Man*, 1992
- Weatherill Stephen *Cases and Material on EC Law*, 3rd ed. 1996, Blackstone Press, London

Articles

- Abrams David J “Regulating the International Hazardous Waste Trade: A Proposed Global Solution” CJTL 28 (1990) 801-845
- Adede A.O “International Environmental Law from Stockholm to Rio: An Overview of Past Lessons and Future Challenges”, EPL 22/2 (1992) p88
- Akehurst M.B “International Liabilities for Injurious Consequences Arising out of Acts not Prohibited by International Law”, 16 NYIL (1985) p3
- Allott Philip “Mare Nostrum : A New International Law of the Sea, Notes and Comments”, AJIL Vol. 86 1992, p767 – 787
- Atkinson Nicola “The Regulatory Lacuna: Waste Disposal and the Clean-Up of Contaminated sites”, JEL 3/2 (1991) p265
- Audretsch H.A.H “Supervision in the EEC, OECD, and Benelux – a Difference in Degree, but also in Kind?”, ICLQ 36 (1987) p838
- Aust Anthony “The Theory and Practice of Informal International Instruments”, ICLQ 35 (1986) p786-812
- Barents Rene’ “The International Market Unlimited: Some Observations on the Legal Basis of Community Legislation”, CMLR 30 (1993) p85
- Bengt Lundholm “The Oceans – Their Production and Pollution. The Baltic as a Case Study” in *Pacem in Maribus*, 1972, Elizabeth Mann Borgese ed.
- Blay S.K.N. “New Trends in the Protection of the Antarctic Environment: The 1991 Madrid Protocol”, AJIL 86 (1992) p377
- Boczek Boleslaw A. “International Protection of the Baltic Sea Environment Against Pollution : A Study in Marine Regionalism”, AJIL Vol. 72 1978, p782 – 814.
- Bodansky Daniel “The United Nations Framework Convention on Climate Change: A Commentary”, YJIL 18/2 (1993) p451-557
- Boehmer-Christiansen Sonja “An end to radioactive waste “at sea”?, MP 10/2 April 1986 p119-131

- Boyle Alan E. "Marine Pollution under the Law of the Sea Convention" AJIL 79 1985, p366
 The Law of the Sea and International Water Courses: An Emerging Cycle", MP March 1990 p151
 "Saving the World? Implementation and Enforcement of International Environmental Law through International Institutions", JEL 3/2 (1991)
 "Land-Based sources of Marine Pollution", MP January 1992, p20
 "Protecting the Marine Environment: Some Problems and Developments in the Law of the Sea" MP March 1992 p79
- Butler W.E. "Soviet Continental Shelf and Anti-Pollution Legislation", ICLQ Vol. 24 1975 p130 – 136
- Gehring T & Oberthur S. "Montreal Protocol, The Copenhagen Meeting", EPL 23/1 (Feb 1993) p6
- Handl "The 1989 Basel Convention on the Transboundary Movement of Hazardous Waste: A preliminary Assessment", in Canadian Council on International Law, p367 (1989)
- Hey E, Ijlstra T Nollkaemper A "The 1992 Paris Convention for the Protection of the Marine Environment of the North-east Atlantic : a Critical Analysis" 8 IJMCL 1-49
- Puckett Jim The Basel Treaty's Ban on Hazardous Waste Exports: An Unfinished Success Story, IER, 6th December, 2000
- Ruloff J. New Accord would control waste exports, Science (April 1989)
- Schmidt Transboundary Movements of Wastes under EC Law: The Emerging Regulatory Framework, (1992)
- Scovazzi Tullio "Sul Principio Precauzionale nel Diritto Internazionale dell'Ambiente", 75 RDI 699-705 (1992)
- Shearer I.A. "Problems of Jurisdiction and Law Enforcement against Delinqueny Vessels", ICLQ Vol. 35 1986, p320 – 343
- Topsy Jewell "EC PIC regulation – No Net Gain For Environmental Protection", Global Pesticide Campaigner 3, August 1993
- Treves Tullio "La Pollution resultant de l-exploration des fonds marine en droit international", AFDI 1978 p828

APPENDICES

Appendix A

Status of Ratification of Basel Convention

Africa

State	Date
Algeria	15.09.1998(a)
Benin	04.12.1997(a)
Botswana	20.05.1998(a)
Burkina Faso	04.11.1999(a)
Burundi	06.01.1997(a)
Cameroon	09.02.2001(a)
Cape Verde	02.07.1999(a)
Comoros	31.10.1994(a)
Cote d'Ivoire	01.12.1994(a)
Dem. Rep. of Congo	06.10.1994(a)
Egypt	08.01.1993(a)
Ethiopia	12.04.2000(a)
Gambia	15.12.1997(a)
Guinea	26.04.1996(a)
Kenya	01.06.2000(a)
Lesotho	31.05.2000(a)
Libyan Arab Jamahiriya	12.07.2001(a)
Madagascar	02.06.1999(a)
Malawi	21.04.1994(a)
Mali	05.12.2000(a)
Mauritania	16.08.1996(a)
Mauritius	24.11.1992(a)
Morocco	28.12.1995(a)
Mozambique	13.03.1997(a)
Namibia	15.05.1995(a)

Niger	17.08.1998(a)
Nigeria	13.03.1991®
Senegal	10.11.1992(a)
Seychelles	11.05.1993(a)
South Africa	05.05.1994(a)
Tunisia	11.10.1995(a)
Uganda	11.03.1999(a)
United Rep of Tanzania	07.04.1993(a)
Zambia	15.11.1994(a)
Asia & Pacific	
Azerbaijan	01.06.2001(a)
Bahrain	15.10.1992(r)
Bangladesh	01.04.1993(a)
Cambodia	02.03.2001(a)
China	17.12.1991(r)
India	24.06.1992(r)
Indonesia	20.09.1993(a)
Iran	05.01.1993(a)
Japan	17.09.1993(a)
Jordan	22.06.1989(AA)
Kiribati	07.09.2000(a)
Kuwait	11.10.1993(r)
Kyrgystan	13.08.1996(a)
Lebanon	21.12.1994(r)
Malaysia	08.10.1993(a)
Maldives	28.04.1992(a)
Micronesia	06.09.1995(a)
Mongolia	15.04.1997(a)
Nepal	15.10.1996(a)

Oman	08.02.1995(a)
Pakistan	26.07.1994(a)
Papua New Guinea	01.09.1995(a)
Philippines	21.10.1993(r)
Qatar	09.08.1995(a)
Rep of Korea	28.02.1994(a)
Saudi Arabia	07.03.1990(r)
Singapore	02.01.1996(a)
Sri Lanka	28.08.1992(a)
Syrian Arab Rep	22.01.1992(r)
Thailand	24.11.1997(r)
Turkmenistan	25.09.1996(a)
United Arab Emirates	17.11.1992(r)
Uzbekistan	07.02.1996(a)
Vietnam	13.03.1995(a)
Yemen	21.02.1996(a)

W Europe & Others

Andorra	23.07.1999(a)
Australia	05.02.1992(a)
Austria	12.01.1993(r)
Belgium	01.11.1993(r)
Canada	28.08.1992(r)
Cyprus	17.09.1992(r)
Denmark	06.02.1994(AA)
Finland	19.11.1991(A)
France	07.01.1991(AA)
Germany	21.04.1995(r)
Greece	04.08.1994(r)

Iceland	28.06.1995(a)
Ireland	07.02.1994(r)
Israel	04.12.1994(r)
Italy	07.02.1994(r)
Liechtenstein	27.01.1992(r)
Luxembourg	07.02.1994(r)
Malta	19.06.2000(a)
Monaco	31.08.1992(a)
Netherlands	18.04.1993(A)
New Zealand	20.12.1994(r)
Norway	02.07.1999(r)
Portugal	26.01.1994(r)
Spain	07.02.1994(r)
Sweden	02.08.1991(r)
Switzerland	31.01.1990(r)
Turkey	22.06.1994(r)
UK	07.02.1994(r)

Central & Eastern Europe

Albania	29.06.1999(a)
Armenia	01.10.1999(a)
Belarus	101.1999(a)
Bosnia-Herzegovina	16.02.2001(a)
Bulgaria	16.02.1996
Croatia	09.05.1994(a)
Czech Rep	30.09.19093(d)
Estonia	21.07.1992(a)
Georgia	20.05.1999(a)
Hungary	21.05.1990(AA)
Latia	14.04.1992(a)
Lithuania	22.04.1999(a)

Poland	22.03.1992(r)
Rep of Moldova	02.07.1998(a)
Romania	29.02.1991(a)
Russian Federation	31.01.1995(r)
Slovakia	28.05.1993(a)
Slovenia	07.10.1992(a)
Yugoslavia	18.04.2000
Macedonia	16.02.1997(a)
Ukraine	08.10.1999(a)

Latin America & Caribbean

Antigua & Barbuda	05.04.1993(a)
Argentina	27.06.1991(r)
Bahamas	12.08.1992(a)
Barbados	24.08.1995(a)
Belize	23.05.1997(a)
Bolivia	15.11.1996(r)
Brazil	01.10.1992(a)
Chile	11.08.1992(r)
Colombia	31.12.1996(r)
Costa Rica	07.03.1995(a)
Cuba	03.10.1994(a)
Dominica	05.05.1998(a)
Dominican Rep	10.07.2000(a)
Ecuador	23.02.1993(r)
El Salvador	13.12.1991(r)
Guatemala	15.05.1995(r)
Guyana	04.04.2001(a)
Honduras	27.12.1995(a)
Mexico	22.02.1991(r)
Nicaragua	03.06.1997(a)

Panama	22.02.1991(r)
Paraguay	28.09.1995(a)
Peru	23.11.1993(a)
St Kitts & Nevis	07.09.1994(a)
Saint Lucia	09.12.1993(a)
St Vincent & Grenadines	02.12.1996(a)
Trinidad & Tobago	18.02.1994(a)
Uruguay	20.12.1991(r)
Venezuela	03.03.1998(r)

Political and/or Economic Integration Organizations : European Community
07.02.1994 (AA)

Signatories of the Basel Convention which have not yet ratified : Afghanistan, Haiti,
USA

Formal Confirmation (c), Ratification, Acceptance, Approval (AA), Accession (a),
Succession (d)

Appendix B

Wastes Listed in Annex VIII of the Basel Convention (List A)

A1 Metal and Metal-bearing wastes

- A1010 Metal wastes and waste consisting of alloys of any of the following:
- Antimony
 - Arsenic
 - Beryllium
 - Cadmium
 - Lead
 - Mercury
 - Selenium
 - Tellurium
 - Thallium
- But excluding such wastes specifically listed on list B
- A1020 Wastes having as constituents or contaminants, excluding metal waste in massive form, any of the following:
- Antimony; antimony compounds
 - Beryllium, beryllium compounds
 - Cadmium; cadmium compounds
 - Lead; lead compounds
 - Selenium; selenium compounds
 - Tellurium; tellurium compounds
- A1030 Wastes having as constituents or contaminants any of the following:
- Arsenic; arsenic compounds
 - Mercury; mercury compounds
 - Thallium; thallium compounds
- A1040 Wastes having as constituents any of the following:
- Metal carbonyls
 - Hexavalent chromium compounds
- A1050 Galvanic sludges
- A1060 Waste liquors from the pickling of metals
- A1070 Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.

- A1080 Waste zinc residues not included on list B, containing lead and cadmium in concentrations sufficient to exhibit Annex III characteristics
- A1090 Ashes from the incineration of insulated copper wire
- A1100 Dusts and residues from gas cleaning systems of copper smelters
- A1110 Spent electrolytic solutions from copper electrofining and electrowinning operations
- A1120 Waste sludges, including anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations
- A1130 Spent etching solutions containing dissolved copper
- A1140 Waste cupric chloride and copper cyanide catalysts
- A1150 Precious metal ash from incineration of printed circuit boards not included on list B⁴³⁷
- A1160 Waste lead-acid batteries, whole or crushed
- A1170 Unsirted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing Annex I constituents to an extent to render them hazardous
- A1180 Waste electrical and electronic assemblies or scrap⁴³⁸ containing components such as accumulators and other batteries included on list A, mercury switches, glass from cathode ray tubes and other activated glass and PCB-capacitors, or contaminated with Annex I constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B B1110)⁴³⁹

**A2 Wastes containing principally inorganic constituents,
which may contain metals and organic materials**

- A2010 Glass waste from cathode ray tubes and other activated glass

⁴³⁷ Note that minor entry on list B (B1160) does not specify exceptions

⁴³⁸ This entry does not include scrap assemblies from electric power generation

⁴³⁹ PCBs are at a concentration level of 50 mg/kg or more

- A2020 Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes as specified on list B
- A2030 Waste catalysts but excluding such wastes specified on list B
- A2040 Waste gypsum arising from chemical industry processes, when containing Annex I constituents to the extent that it exhibits an Annex III hazardous characteristic (note the related entry on list B B2080)
- A2050 Waste asbestos (dust and fibres)
- A2060 Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex III Characteristics (note the related entry on list B B2050)

**A3 Wastes containing principally organic constituents,
which may contain metals and inorganic materials**

- A3010 Waste from the production or processing of petroleum coke and bitumen
- A3020 Waste mineral oils unfit for their original intended use
- A3030 Wastes that contain, consist of or are contaminated with leaded anti-knock compound sludges
- A3040 Waste thermal (heat transfer) fluids
- A3050 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesive excluding such wastes specified on list B (note the related entry on list B B4020)
- A3060 Waste nitrocellulose
- A3070 Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges
- A3080 Waste ethers not including those specified on list B
- A3090 Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B B3100)
- A3100 Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent

- chromium compounds or biocides (note the related entry on list B B3090)
- A3110 Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B B3110)
- A3120 Fluff-light fraction from shredding
- A3130 Waste organic phosphorous compounds
- A3140 Waste non-halogenated organic solvents but excluding such wastes specified on list B
- A3150 Waste halogenated organic solvents
- A3160 Waste halogenated or unhalogenated non-aqueous distillation residues arising fro organic solvent recovery operations
- A3170 Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloro-ethane, vinyl chloride, vinylidine chloride, allylchloride and epichlorhydrin)
- A3180 Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybriominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more⁴⁴⁰
- A3190 Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolitic treatment of organic materials

A4 Wastes which may contain either inorganic or organic constituents

- A4010 Wastes from the production, preparation and use of pharmaceutical products but excludes such wastes specified in list B
- A4020 Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects

⁴⁴⁰ The 50 mg/kg level is considered to be an internationally practical level for all wastes. However, many individual countries have established lower regulatory levels (e.g. 20 mg/kg) for specific wastes

A4030	Wastes from the production, formulation of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated ⁴⁴¹ , or unfit for their originally intended use
A4040	Waste from the manufacture, formulation and use of wood-preserving chemicals ⁴⁴²
A4050	Wastes that contain, consist of or are contaminated with any of the following: <ul style="list-style-type: none"> • Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides • Organic cyanides
A4060	Waste oils/water, hydrocarbons/water mixtures, emulsions
A4070	Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)
A4080	Wastes of an explosive nature (but excluding such wastes specified on list B)
A4090	Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list B B2120)
A4100	Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified on list B
A4110	Wastes that contain, consist of, or are contaminated with any of the following: <ul style="list-style-type: none"> • Any congener of polychlorinated dibenzo-furan • Any congener of polychlorinated dibenzo-dioxin
A4120	Wastes that contain, consist of or are contaminated with peroxides
A4130	Waste packages and containers containing Annex I substances in concentrations sufficient to exhibit Annex III hazard characteristics
A4140	Wastes consisting of or containing off-specification or outdated ⁴⁴³ chemicals corresponding to Annex I categories and exhibiting Annex III Characteristics

⁴⁴¹ “Outdated” means unused within the period recommended by the manufacturer

⁴⁴² This entry does not include wood treated with wood preserving chemicals

⁴⁴³ “Outdated” means unused within the period recommended by the manufacturer

- A4150 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known
- A4160 Spent activated carbon not included on list B (note the related entry on list B B2060)

Appendix C

Annex I Basel Convention **Categories of Wastes to be controlled**

Waste Streams

Y1	Clinical Wastes from medical care in hospitals, medical centres and clinics
Y2	Wastes from the production and preparation of pharmaceutical products
Y3	Waste pharmaceuticals, drugs and medicines
Y4	Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Y5	Wastes from the manufacture, formulation and use of wood preserving chemicals
Y6	Wastes from the production, formulation and use of organic solvents
Y7	Wastes from heat treatment and tempering operations containing cyanides
Y8	Waste mineral oils unfit for their originally intended use
Y9	Waste oils/water, hydrocarbons/mixtures, emulsions
Y10	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
Y11	Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12	Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
Y13	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
Y14	Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
Y15	Wastes of an explosive nature not subject to other legislation
Y16	Wastes from production, formulation and use of photographic chemicals and processing materials
Y17	Wastes resulting from surface treatment of metals and plastics
Y18	Residues arising from industrial waste disposal operations

Wastes having as constituents:

Y19	Metal carbonyls
Y20	Beryllium; beryllium compounds
Y21	Hexavalent chromium compounds
Y22	Copper compounds
Y23	Zinc compounds
Y24	Arsenic; arsenic compounds

Y25	Selenium; selenium compounds
Y26	Cadmium; cadmium compounds
Y27	Antimony; antimony compounds
Y28	Tellurium; tellurium compounds
Y29	Mercury; mercury compounds
Y30	Thallium; thallium compounds
Y31	Lead; lead compounds
Y32	Inorganic fluorine compounds excluding calcium fluoride
Y33	Inorganic cyanides
Y34	Acidic solutions or acids in solid form
Y35	Basic solutions or bases in solid form
Y36	Asbestos (dust and fibres)
Y37	Organic phosphorous compounds
Y38	Organic cyanides
Y39	Phenols; phenol compounds including chlorophenols
Y40	Ethers
Y41	Halogenated organic solvents
Y42	Organic solvents excluding halogenated solvents
Y43	Any congener of polychlorinated dibenzo-furan
Y44	Any congener of polychlorinated dibenzo-p-dioxin
Y45	Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44)

- (a) To facilitate the application of this Convention, and subject to paragraphs (b), (c) and (d), wastes listed in Annex VIII are characterized as hazardous pursuant to Article 1(a), of this Convention, and wastes listed in Annex IX are not covered by Article 1, paragraph 1(a) of this Convention.
- (b) Designation of a waste on Annex III does not preclude, in a particular case, the use of Annex III to demonstrate that a waste is not hazardous pursuant to Article 1, paragraph 1(a), of this Convention.
- (c) Designation of a waste on Annex IX does not preclude, in a particular case, characterization of such a waste as hazardous pursuant to Article 1, paragraph 1(a), of this Convention if it contains Annex I material to an extent causing it to exhibit an Annex III characteristic.
- (d) Annexes VIII and IX do not affect the application of Article 1, paragraph 1(a), of this Convention for the purpose of characterization of wastes⁴⁴⁴.

⁴⁴⁴ Decision IV/9 adopted by COP4 in 1998 amended the Annex I by adding these four paragraphs (a, b, c and d) at the end of Annex I, and added two additional Annexes to the Convention, Annex VIII and Annex IX

Appendix D

Annex II Categories of Wastes Requiring Special Consideration

Y46	Wastes collected from households
Y47	Residues arising from the incineration of household wastes

Appendix E

Annex III List of Hazardous Characteristics

<u>UN Class</u> ⁴⁴⁵	<u>Code</u>	<u>Characteristics</u>
1	H1	Explosive. An explosive substance or waste is a solid or liquid substance or waste (or mixture of substance or wastes) which is in itself capable by chemical reaction or producing gas at such a temperature and pressure and at such speed as to cause damage to the surroundings.
3	H3	Flammable liquids. The word “flammable” has the same meaning as “inflammable”. Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.6°C, open-cup test. (Since the results of open-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition).
4.1	H4.1	Flammable solids. Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.
4.2	H4.2	Substances or wastes liable to spontaneous combustion. Substances or wastes, which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, are being then liable to catch fire.
4.3	H4.3	Substances or wastes which, in contact with water emit flammable gases. Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
5.1	H5.1	Oxidizing. Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.

⁴⁴⁵ Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1 Rev. 5, United Nations, New York, 1988)

5.2	H5.2	Organic Peroxides. Organic substances or wastes which contain the bivalent O-O- structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.
6.1	H6.1	Poisonous (Acute). Substances or wastes liable either to cause death or serious injury or to harm health if swallowed or inhaled or by skin contact.
6.2	H6.2	Infectious substances. Substances or wastes containing viable microorganisms or their toxins which are known or suspected to cause disease in animals or humans.
8	H8	Corrosives. Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
9	H10	Liberation of toxic gases in contact with air or water. Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.
9	H11	Toxic (Delayed or chronic). Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.
9	H12	Ecotoxic. Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
9	H13	Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

Tests

The potential hazards posed by certain types of wastes are not yet fully documented; tests to define quantitatively these hazards do not exist. Further research is necessary in order to develop the means to characterize potential hazards posed to man and/or the environment by these wastes. Standardization tests have been derived with respect to pure substances and materials. Many countries have developed national tests which can be applied to materials listed in Annex I, in order to decide if these materials exhibit any of the characteristics listed in this Annex.

Appendix F

Annex IV Disposal Operations

A. Operations which do not lead to the possibility or resource recovery, recycling, reclamation, direct re-use or alternative uses

Section A encompasses all such disposal operations which occur in practice.

- D1 Deposit into or onto land, (e.g., landfill, etc.)
- D2 Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)
- D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes of naturally occurring repositories, etc.)
- D4 Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds or lagoons, etc.)
- D5 Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
- D6 Release into a water body except seas/oceans
- D7 Release into seas/oceans including seabed insertion
- D8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A
- D9 Physico chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A, (e.g., evaporation, drying, calcination, neutralization precipitation, etc.)
- D10 Incineration on land
- D11 Incineration at sea
- D12 Permanent storage (e.g., emplacement of containers in a mine, etc.)
- D13 Blending or mixing prior to submission to any of the operations in Section A
- D14 Repackaging prior to submission to any of the operations in Section A
- D15 Storage pending any of the operations in Section A

B. Operations which may lead to resource recovery, recycling, reclamation, direct re-use or alternatives

- R1 Use as a fuel (other than in direct incineration) or other means to generate energy
- R2 solvent reclamation/regeneration
- R3 Recycling/reclamation of organic substances which are not used as solvents
- R4 Recycling/reclamation of metals and metal compounds
- R5 Recycling/reclamation of other inorganic materials
- R6 Regeneration of acids or bases

- R7 Recovery of components used for pollution abatement
- R8 Recovery of components from catalysts
- R9 used oil re-refining or other reuses of previously used oil
- R10 Land treatment resulting in benefit to agriculture or ecological improvement
- R11 Uses of residual materials obtained from any of the operations numbered R1-R10
- R12 Exchange of wastes for submission to any of the operations numbered R1-R11
- R13 Accumulation of material intended for any operation in Section B

Appendix G

Annex V A Information to be provided on notification

1. Reason for waste export
2. Exporter of the waste 1/
3. Generator(s) of waste and site of generation 1/
4. Disposer of the waste and actual site of disposal 1/
5. Intended carrier(s) of the waste and their agents, if known 1/
6. Country of export of the waste, Competent authority 2/
7. Expected countries of transit, Competent authority 2/
8. Country of import of the waste, Competent authority 2/
9. General or single notification
10. Projected date(s) of shipment(s) and period of time over which the waste is to be exported and proposed itinerary (including point of entry and exit) 3/
11. Means of transport envisaged (road, rail, sea, air, inland waters)
12. Information relating to insurance 4/
13. Designation and physical description of the waste including Y number and UN number and its composition 5/ and information on any special handling requirements including emergency provisions in case of accidents
14. Type of packaging envisaged (e.g., bulk, drummed, tanker)
15. Estimated quantity in weight/volume 6/
16. Process by which the waste is generated 7/
17. For wastes listed in Annex I, classifications from Annex III: hazardous characteristic, H number, and UN class
18. Method of disposal as per Annex IV
19. Declaration by the generator and exporter that the information is correct
20. Information transmitted (including technical description of the plant) to the exporter or generator from the disposer of the waste upon which the latter has based his assessment that there was no reason to believe that the wastes will not be managed in an environmentally sound manner in accordance with the laws and regulations of the country of import
21. Information concerning the contract between the exporter and disposer

Notes

- 1/ Full name and address, telephone or telefax number and the name, address, telephone, telex or telefax number if the person to be contacted.
- 2/ Full name and address, telephone, telex or telefax number
- 3/ In the case of a general notification covering several shipments, either the expected dates of each shipment or, if this is not known, the expected frequency of the shipments will be required.
- 4/ Information to be provided on relevant insurance requirements and how they are met by exporter, carrier and disposer.

- 5/ The nature and the concentration of the most hazardous components, in terms of toxicity and other dangers presented by the waste both in handling and in relation to the proposed disposal method.
- 6/ In the case of a general notification covering several shipments, both the estimated total quantity and the estimated quantities for each shipment will be required.
- 7/ Insofar as this is necessary to assess the hazard and determine the appropriateness of the proposed disposal.

Annex V B Information to be provided on the movement document

1. Exporter of waste 1/
2. Generator(s) of the waste and site of generation 1/
3. Disposer of the waste and actual site of disposal 1/
4. Carrier(s) of the waste 1/ or his agent(s)
5. Subject to general or single notification
6. The date the transboundary movement started and date(s) and signature on receipt by each person who takes charge of the waste
7. Means of transport (road, rail, inland waterway, sea, air) including countries of export, transit and import, also point of entry and exit where these have been designated
8. General description of the waste (physical state, proper UN shipping name and class, UN number, Y number and H number as applicable)
9. Information on special handling requirements including emergency provision in case of accident
10. Type and number of packages
11. Quantity in weight/volume
12. Declaration by the generator or exporter that this information is correct
13. Declaration by the generator or exporter indicating no objection from the competent authorities of all States concerned which are parties
14. Certification by disposer of receipt at designated disposal facility and indication of method of disposal and of the approximate date of disposal.

Notes

The information required on the movement document shall where possible be integrated in one document with that required under transport rules. Where this is not possible the information should complement rather than duplicate that required under the transport rules. The movement document shall carry instructions as to who is to provide information and fill-out any form.

- 1/ Full name and address, telephone or telefax number and the name, address, telephone, telex or telefax number of the person to be contacted in case of emergency

Appendix H

Wastes listed in Annex IX of the Basel Convention (List B)

Wastes contained in the Annex will not be wastes covered by Article 1, paragraph 1(a), of this Convention unless they contain Annex I material to an extent causing them to exhibit Annex III characteristics

B1 Metal and metal-bearing wastes

- B1010 Metal and metal alloy wastes in metallic, non-dispersible form:
- Precious metals (gold, silver, the platinum group, but not mercury)
 - Iron and steel scrap
 - Copper scrap
 - Nickel scrap
 - Aluminium scrap
 - Zinc scrap
 - Tin scrap
 - Tungsten scrap
 - Molybdenum scrap
 - Tantalum scrap
 - Magnesium scrap
 - Cobalt scrap
 - Bismuth scrap
 - Titanium scrap
 - Zirconium scrap
 - Manganese scrap
 - Germanium scrap
 - Vanadium scrap
 - Scrap of hafnium, indium, niobium, rhenium and gallium
 - Thorium scrap
 - Rare earths scrap
- B1020 Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc), of:
- Antimony scrap
 - Beryllium scrap
 - Cadmium scrap
 - Lead scrap (but excluding lead-acid batteries)
 - Selenium scrap
 - Tellurium scrap
- B1030 Refractory metals containing residues

- B1040 Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous
- B1050 Mixed non-ferrous metals, heavy fraction scrap, lot containing Annex I materials in concentrations sufficient to exhibit Annex III characteristics⁴⁴⁶
- B1060 Waste selenium and tellurium in metallic elemental form including powder
- B1070 Waste of copper and copper alloys in dispersible form, unless they contain Annex I constituents to an extent that they exhibit Annex III characteristics
- B1080 Zinc ash and residues including zinc alloy residues in dispersible form unless containing Annex I constituents in concentration such as to exhibit Annex III characteristics or exhibiting hazard characteristic H4.3⁴⁴⁷
- B1090 Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury
- B1100 Metal-bearing wastes arising from melting, smelting and refining of metals:
- Hard zinc spelter
 - Zinc-coated drosses:
 - Galvanizing slab zinc top dross (>90% Zn)
 - Galvanizing slab zinc bottom dross (>92% Zn)
 - Zinc die casting dross (>85% Zn)
 - Hot dip galvanizers slab zinc dross (batch)(>92% Zn)
 - Zinc skimmings
 - Aluminium skimmings (or skims) excluding salt slag
 - Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extent that they exhibit Annex III hazard characteristics
 - Wastes of refractory linings, including crucibles, originating from copper smelting

⁴⁴⁶ Note that even where low-level contamination with Annex I materials initially exists, subsequent processes, including recycling processes, may result in separated fractions containing significantly enhanced concentrations of those Annex I materials.

⁴⁴⁷ The status of zinc ash is currently under review and there is a recommendation with the United Nations Conference on Trade and Development (UNCTAD) that zinc ashes should not be dangerous goods

- Slags from precious metals processing for further refining
- Tantalum-bearing tin slags with less than 0.5% tin

B1110

Electrical and electronic assemblies:

- Electronic assemblies consisting only of metals or alloys
- Waste electrical and electronic assemblies or scrap⁴⁴⁸ (including printed circuit boards) not containing components such as accumulators and other batteries included in list A, mercury switches, glass from cathode ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g, cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (note the related entry on list A A1180)
- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse⁴⁴⁹, and not for recycling or final disposal⁴⁵⁰

B1120

Spent catalysts excluding liquids used as catalysts, containing any of: Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on List A:

Scandium	Titanium	Vanadium	Chromium	Manganese
Iron	Cobalt	Nickel	Copper	Zinc
Yttrium	Zirconium	Niobium	Molybdenum	Hafnium
Tungsten	Tantalum	Rhenium		

Lanthanides (rare earth metals):

Lanthium	Cerium	Neodymium	Praseodymium
Europium	Terbium	Samarium	Holmium
Thulium	Gadolinium	Lutetium	Dysprosium
Erbium	Ytterbium		

B1130

Cleaned spent precious-metal-bearing catalysts

B1140

Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides

B1150

Precious metals and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

⁴⁴⁸ This entry does not include scrap from electrical power generation

⁴⁴⁹ Reuse can include repair, refurbishment or upgrading, but not major reassembly

⁴⁵⁰ In some countries these materials destined for direct re-use are not considered wastes

B1160	Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1150)
B1170	Precious-metal ash from the incineration of photographic film
B1180	Waste photographic film containing silver halides and metallic silver
B1190	Waste photographic paper containing silver halides and metallic silver
B1200	Granulated slag arising from the manufacture of iron and steel
B1210	Slag arising from the manufacture of iron and steel including slags as a source of TiO ₂ and vanadium
B1220	Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g. DIN 4301) mainly for construction
B1230	Mill scaling arising from the manufacture of iron and steel
B1240	Copper oxide mill-scale

B2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

B2010	<p>Wastes from mining operations in non-dispersible form:</p> <ul style="list-style-type: none"> • Natural graphite waste • Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise • Mica waste • Leucite, nepheline and nepheline syenite waste • Feldspar waste • Fluorspar waste • Silica wastes in solid form excluding those used in foundry operations
B2020	<p>Glass waste in non-dispersible form:</p> <ul style="list-style-type: none"> • Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses
B2030	<p>Ceramic wastes in non-dispersible form:</p> <ul style="list-style-type: none"> • Cermet wastes and scrap (metal ceramic composites) • Ceramic based fibres not elsewhere specified or included
B2040	Other wastes containing principally inorganic constituents:

- Partially refined calcium sulphate produced from flue-gas desulpharization (FGD)
- Waste gypsum wallboard or plasterboard arising from the demolition of buildings
- Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g. DIN 4301 and DIN 8201) mainly for construction and abrasive applications
- Sulphur in solid form
- Limestone from the production of calcium cyanamide (having a pH less than 9)
- Sodium, potassium, calcium chlorides
- Carborundum (silicon carbide)
- Broken concrete
- Lithium-tantalum and lithium-niobium containing glass scraps

B2050	Coal-fired power plant fly-ash, not included on list A (note the related entry on list A A2060)
B2060	Spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list A A4160)
B2070	Calcium fluoride sludge
B2080	Waste gypsum arising from chemical industry processes not included on list A (note the related entry on list A A2040)
B2090	Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)
B2100	Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes
B2110	Bauxite residue (“red mud”) (pH moderated to less than 11.5)
B2120	Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A A4090)

**B3 Wastes containing principally organic constituents,
which may contain metals and inorganic materials**

B3010

Solid plastic waste:

The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:

- Scrap plastic of non-halogenated polymers and co-polymers, including but not limited to the following⁴⁵¹:
 - ethylene
 - styrene
 - polypropylene
 - polyethylene terephthalate
 - acrylonitrile
 - butadiene
 - polyacetals
 - polyamides
 - polybutylene terephthalate
 - polycarbonates
 - polyethers
 - polyphenylene sulphides
 - acrylic polymers
 - alkanes C10-C13 (plasticiser)
 - polyurethanes (not containing CFCs)
 - polysiloxanes
 - polymethyl methacrylate
 - polyvinyl alcohol
 - polyvinyl butyral
 - polyvinyl acetate

- Cured waste resins or condensation products including the following:
 - urea formaldehyde resins
 - phenol formaldehyde resins
 - melamine formaldehyde resins
 - epoxy resins
 - alkyd resins
 - polyamides

- The following fluorinated polymer wastes⁴⁵²
 - perfluoroethylene/propylene (FEP)
 - perfluoroalkoxy alkane (PFA)

⁴⁵¹ It is understood that such scraps are completely polymerized

⁴⁵² - Post consumer wastes are excluded from this entry

- Wastes shall not be missed

- Problems arising from open-burning practices to be considered

- perfluoroalkoxy alkane (MFA)
- polyvinylfluoride (PVF)
- polyvinylidene fluoride (PVDF)

B3020

Paper, paperboard and paper product wastes

The following materials, provided they are not mixed with hazardous wastes:

Waste and scrap of paper or paperboard of:

- unbleached paper or paperboard or of corrugated paper or paperboard
- other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass
- paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
- other, including but not limited to 1) laminated paperboard 2) unsorted scrap

B3030

Textile wastes

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

- Silk waste (including cocoons unsuitable for reeling, yarn waste and garneted stock)
 - not carded or combed
 - other
- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garneted stock
 - noils of wool or of fine animal hair
 - other waste of wool or of fine animal hair
 - waste of coarse animal hair
- Cotton waste (including thread waste)
 - yarn waste (including thread waste)
 - garneted stock
 - other
- Flax tow and waste
- Tow and waste (including yarn waste and garneted stock) of true hemp (Cannabis sativa L.)
- Tow and waste (including yarn waste and garneted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
- Tow and waste (including yarn waste and garneted stock) of sisal and other textile fibres of the genus Agave
- Tow, noils and waste (including yarn waste and garneted stock) of coconut

- Tow, noils and waste (including yarn waste and garneted stock) of abaca (Manila hemp or Musa textiles Nee)
- Tow, noils and waste (included yarn waste and garneted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included
- Waste (including noils, yarn waste and garneted stock) of man-made fibres
 - of synthetic fibres
 - of artificial fibres
- Worn clothing and other and other worn textile articles
- Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials
 - sorted
 - other

B3040

Rubber wastes

The following materials, provided they are not mixed with other wastes:

- Waste and scrap of hard rubber (e.g. ebonite)
- Other rubber wastes (excluding such wastes specified elsewhere)

B3050

Untreated cork and wood waste:

- Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms
- Cork waste: crushed, granulated or ground cork

B3060

Wastes arising from agro-food industries provided it is not infectious:

- Wine lees
- Dried and sterilized vegetable waste, residue and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included
- Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes
- Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinized
- Fish waste
- Cocoa shells, husks, skins and other cocoa waste
- Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption

B3070

The following wastes:

- Waste of human hair
- Waste straw

- Deactivated fungus mycelium from penicillin production to be used as animal feed

B3080	Waste parings and scrap of rubber
B3090	Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavaent chromium compounds and biocides (note the related entry on list A A3100)
B3100	Leather dust, ash, sludge or flours not containing hexavalent chromium compounds or biocides (note the related entry on list a A3090)
B3110	Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A A3110)
B3120	Wastes consisting of food dyes
B3130	Waste polymer ethers and waste non-hazardous monomers ethers incapable of forming peroxides
B3140	Waste pneumatic tyres, excluding those destined for Annex IVA operations

B4 Wastes which may contain either inorganic or organic constituents

B4010	Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A A4070)
B4020	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III characteristics, e.g., water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050)
B4030	Used single-use cameras, with batteries not included on list A