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NOTE ON:

**RESPONSIBILITY OF TRANSNATIONAL ENVIRONMENTAL POLLUTION UNDER
INTERNATIONAL ENVIRONMENTAL LAW**

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Abstract

The issue of transnational environmental pollution is a problem that poses threat to the existence of the world and its inhabitant. Concerted efforts have been made by the international community and individual States to curtail the effect of transnational environmental pollution. This note examines the liability of polluter States, and the legal challenges in establishing transnational responsibility for environmental pollution. Accordingly, effort is made to identify the effects and the measures put in place under international and national laws to checkmate transnational environmental pollution. It is found that some international laws require international arbitration; Pollutant State is required to undertake due diligence to prevent significant or substantial trans-boundary pollution harms and not strict liability; and that international laws creating State responsibilities for transnational pollution are not incorporated in national laws. This note brings the observation that international community should have taken proactive steps towards proper management of the environment. It further underlines consequences when companies and developed nations smuggle hazardous wastes to developing countries that do not have the capabilities to deal with the waste in an environmentally friendly way.

Keywords: Environment, trans-boundary pollution, environmental responsibility, State responsibilities, wastes.

I. INTRODUCTION

The industrial activities of a neighbouring State which generate substances in the air, water, and land sharing boundaries are felt across borders. The pollution emanating from this state gives raise to Transnational Environmental Pollution.¹ Transnational responsibility is embedded in the rule that a state takes liability for its activity within its territory which causes pollution across boundaries of its neighbouring states. The historical development of the responsibility of the State for pollution that affects neighbouring states can be traced to the Trail Smelter Arbitration

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¹ L. Kutner, *The Control and Prevention of Transnational Pollution: A Case for World Habeas Ecologicus*, 9 U. MIAMI INTER-AM. L. REV 257 (2015).

in which Canada was held liable for acts within its territory that affected the United States.² Trail Smelter arbitration was the first (and still only) adjudicative precedent from an international tribunal that directly addressed the substantive law of transnational pollution.³

The general substance of transnational pollution law provides a more balanced approach which requires “states to undertake due diligence to prevent significant (or substantial) transnational environmental harm from activities within their jurisdiction or control.”⁴ State responsibility is an age-old principle of international law that was developed to protect the rights of aliens.⁵ It arises when a state commits an international wrong against another state.⁶ This rule has now been elevated to the status of a general principle of international law. The international responsibility of state is a reflection of the limitation of external state sovereignty, in terms of establishing international responsibility when a state commits an internationally wrongful act, i.e. when it breaches an obligation undertaken with a treaty while causing loss or damage to another state.⁷

This note includes seven sections including the introduction. Section two explain the problem of transnational environmental pollution and the effects thereof, consecutively. While section three presents a brief account of several land mark cases related to the issue, section four deals with the legal framework, both at the national and international levels, regulating the conduct of the nations causing transnational environmental pollution. Section five is devoted to the discussion on the liability for causing transnational pollution.

II. TRANSNATIONAL ENVIRONMENTAL POLLUTION: EXPLAINED

Pollution is a transnational phenomenon.⁸ Air and water pollution, and to a lesser extent groundwater contamination, can cross political boundaries.⁹ One of the greatest problems that the world is facing today is that of environmental pollution, increasing with every passing year and causing grave and irreparable damage to the earth. Although pollution had been known to exist for a very long time (at least since people started using fire thousands of years ago), it had seen the growth of truly global proportions only since the onset of the industrial revolution during the 19th century.¹⁰

² Arbitral Trib., 3 U.N. Rep. Int'l Arb. Awards 1905 (1941).

³ See Thomas W. Merrill, *Golden Rules for Transboundary Pollution*, 46 DUKE L.J. 931, 931–35 (1997); see also Agreement on Air Quality, *supra* note 1; notes 242–243 and accompanying text.

⁴ See John H. Knox, *The Myth and Reality of Transboundary Environmental Impact Assessment*, 96 AM. J. INT'L L. 291, (2002), at 294.

⁵ IAN BROWNLIE. SYSTEM OF THE LAW OF NATIONS: STATE RESPONSIBILITY: PART 1 (1983), Oxford: Oxford University Press (1983), at 9.

⁶ IAN BROWNLIE PRINCIPLES OF PUBLIC INTERNATIONAL LAW (5th ed, 1998), Clarendon Press, (1998) at 435–6.

⁷ Milka Dimitrovska. *The Concept of International Responsibility of State in the International Public Law System*. JOURNAL OF LIBERTY AND INTERNATIONAL AFFAIRS 1(2), (2015) at 4.

⁸ See Allen L. Springer, *The International Law of Pollution: Protecting the Global Environment in a WORLD OF SOVEREIGN STATES* 13 (1983) (stating that the “first type of internationally significant environmental change . . . [is] transboundary pollution”)

⁹ Merrill, *supra* note 3, at 935.

¹⁰ The industrial revolution brought with it technological progress such as discovery of oil and its virtually universal use throughout different industries

Environmental pollution is a problem both in developed and developing countries. Factors such as population growth and urbanization invariably place greater demands on the planet and stretch the use of natural resources to the maximum. Pollution involves the introduction into the environment of material or energy that endangers or is likely to endanger human health, well-being or resources.¹¹

Transnational pollution is pollution whose physical origin is situated wholly or in part within the area under jurisdiction of one [state] and which has adverse effects, other than effects of a global nature, in the area under jurisdiction of [another state].¹² Addressing transnational environmental pollution requires that nations co-operate where their interest will be better served and collectively deal with common environmental threat. Where an environmental hazard is caused by activities beyond national border and its effect transcend such borders, they become matters that require international and transnational concern.¹³ Equally important is also the importance of domestic legal system that can address transnational pollution problems more effectively and efficiently through its environmental protection strategies, cost internalization, fairness, and equity.¹⁴ Legal control of transnational pollution shares these aims, with the additional goals of respecting state sovereignty and preserving relations between countries.¹⁵

Hence, addressing transnational pollution requires both international and domestic law. Transnational pollution is an international problem that demands and deserves the attention of international legal mechanisms such as treaties, agreements, arbitration, and international management and governance. Diverse and potentially conflicting goals are best served by harmonizing transnational pollution management and dispute resolution under international and domestic law.¹⁶

Transnational environmental pollution can cause diverse human and resource damages among which are depletion of ozone layer, global warming, damage to human health, loss of biodiversity and decrease in agricultural productivity. An example of such impact is best explained by global warming, which is caused by transboundary air pollution. Global warming is the increase in the global average temperature.¹⁷ It is caused by increases in atmospheric greenhouse gases concentration.¹⁸ Rise in temperature will lead to outbreak of airborne and

¹¹ Identification and control of pollutants of international significance, U.N. Doc. A/CONF.48/8.

¹² Noah D. Hall, *Transboundary Pollution: Harmonizing International and Domestic Law*, UNIVERSITY OF MICHIGAN JOURNAL OF LAW REFORM, 40(4), 681-746, (2007) at 681.

¹³ OJI UMOZURIKE UMOZURIKE. INTRODUCTION TO INTERNATIONAL LAW. Ibadan: Spectrum Book Publications (1993)

¹⁴ Hall, *supra* note 12, at 681.

¹⁵ The most prominent and significant cases on transnational pollution principles under domestic law in the United States Supreme Court are *Missouri v. Illinois (Missouri II)*, 200 U.S. 496 (1906); *Missouri v. Illinois (Missouri I)*, 180 U.S. 208 (1901); and *Georgia v. Tenn. Copper Co. (Georgia II)*, 237 U.S. 474 (1915); *Georgia v. Tenn. Copper Co. (Georgia I)*, 206 U.S. 230 (1907). These Supreme Court's decisions continue to provide legal and policy precedents governing state liability for transboundary pollution in the United States.

¹⁶ Hall, *supra* note 12, at 282.

¹⁷ Naomi Oreskes. *The Scientific Consensus on Climate Change*, SCIENCE. Vol. 306 no. 5702 p. 1686 DOI: 10.1126/science.1103618 (2004).

¹⁸ *Id.* Other gases such as methane, CFCs, nitrous oxide are also responsible for global warming

waterborne diseases. It would also contribute to the rise in death caused by heat. Hence, global warming is a great threat to the flora and fauna of the earth.

Global warming makes some land areas (particularly coastal zones) less habitable or less agriculturally productive and also produce changes in ocean temperature that are harmful to invaluable coral reefs and fish populations on which humans depend. The geographical scale of these problems and their impacts combined with the international diffusion of more localized problems clearly constitute a globalization of environmental problems.¹⁹

An integrated and multidisciplinary approach to reduce the adverse health effects of climate change requires at least three levels of action. First, policies must be adopted to reduce carbon emissions and to increase carbon bio sequestration, and thereby slow down global warming and eventually stabilise temperatures. Second, action should be taken on the events linking climate change to disease. Third, appropriate public health systems should be put into place to deal with adverse outcomes.²⁰

III. CASES OF TRANSNATIONAL ENVIRONMENTAL POLLUTION

For better understanding of the degree of transboundary pollution and some of the underpinning principles emerged therefrom, a brief discussion is made on sample cases brought before different tribunals from different jurisdictions.

1. *United States and Canada*

By far the most influential decision on transnational pollution in international law is the Trail Smelter arbitration.²¹ The arbitration arose out of a controversy between the United States and Canada over sulphur fumes emitted by a smelter at Trail, British Columbia, which were blown by prevailing winds down the Columbia River valley into the northern part of the State of Washington. The dispute was initially submitted to the International Joint Commission (IJC) established by the Boundary Waters Treaty of 1909 between the United States and Canada.²² The IJC (which has no binding powers of adjudications²³) recommended that Canada pay \$350,000 in indemnification to the U.S. for damages incurred through 1931.²⁴ The two countries eventually agreed to this recommendation, and also entered into a Convention establishing a special arbitration tribunal to determine whether damage has occurred since the first day of January, 1932 and if so what damages is to be paid.²⁵

The tribunal further concluded that Canada was responsible under international law for the Trail Smelter's pollution:

¹⁹ Thoma'l J. Burns, Byron L. Davis, & Edward L. Kick. *Position in the world-system and national emissions of greenhouse gases*. JOURNAL OF WORLD-SYSTEMS RESEARCH 3, 432–466 (1997).

²⁰ NICHOLAS STERN, *THE ECONOMICS OF CLIMATE CHANGE*. Cambridge University Press, Cambridge 33 (2007).

²¹ Trail Smelter (U.S. v. Can.), 3 R.I.A.A. 1905, 1938 (1949).

²² Treaty Between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada, Jan. 11, 1909, U.S.-Can., 36 Stat. 2448.

²³ See Maxwell Cohen. *The Régime of Boundary Waters-The Canadian-United States Experience*, 146 RECUEIL DES COURS 219, 258 (1975).

²⁴ See Trail Smelter, 3 R.I.A.A. at 1907.

²⁵ *Id.*, at 1908.

The Tribunal holds that the Dominion of Canada is responsible in international law for the conduct of the Trail Smelter. Apart from the undertakings in the Convention, it is, therefore, the duty of the Government of the Dominion of Canada to see to it that this conduct should be in conformity with the obligation of the Dominion under international law as herein determined.²⁶

The Trail smelter tribunal required Canada to take responsibility for its pollution and pays damage to the injured U.S. The Tribunal also urged Canada to establish a regime to monitor and abate pollution from the smelter.

The *Trail Smelter* arbitration has assumed immense importance in the development of the customary international law on transnational pollution, primarily because it is the only adjudicative decision of an international tribunal that speaks directly to the substantive law of transnational pollution²⁷.

2. *Cote d'Ivoire and Netherlands*

In 2006 hundreds of tons of toxic waste was dumped in Abidjan from a ship named "Probo Koala" chartered by an international oil trader in the Netherlands.²⁸ This led to some new regulations which restricted the industrial nations from exporting hazardous waste to developing countries that do not have the capacity to deal with the waste in an environmentally friendly way.

3. *Nigeria and Italy*

In June, 1988, Nigeria experienced its first transnational environmental pollution with the dumping of 3,888 tons of toxic waste at Koko village in the then Bendel state by an Italian company. This generated a lot of diplomatic problem between Nigeria and Italy. The government of Italy evacuated the waste back to Italy. This prompted the government of Nigeria to promulgation of the Harmful Waste (Special Criminal Provision etc.) Act, 1988.²⁹

4. *United Kingdom/ Continental Europe and Scandinavia*

In the late 1960s, the long-distance travel of sulphur dioxides from local sources, together with its transnational effects, was discovered.³⁰ Acidification of freshwater and its transnational effects on fish stocks were connected to airborne pollutants that travelled from the United Kingdom and continental Europe to Scandinavian rivers, lakes, and forest.

5. *France and Netherland*

In 1976 Netherland sought to ban the environmentally destructive industrial practices of French mining company. The French company was discharging its industrial waste into the Netherlands.

²⁶ *Id* at 1965- 1966.

²⁷ See ALEXANDRE KISS & DINAH SHELTON, INTERNATIONAL ENVIRONMENTAL LAW 125, 361 (1991).

²⁸ The waste caused damages to the health of almost 100,000 people. The oil trader (Trafigura) paid 200 million dollars to help with clean-up. The owner of the local company a Nigerian was responsible for disposing the chemicals in various places was given 20 years in jail.

²⁹ Mike Ikhariale. The Koko Incident: The Environment and the Law in F. SHYLLON (ED.) THE LAW AND THE ENVIRONMENT IN NIGERIA, Ibadan, Vantage Publishers (1989).

³⁰ Rolf Lidskog and Goran Sundqvist, *The role of science in environmental regimes: The Case of LRTAP*. EUROPEAN JOURNAL OF INTERNATIONAL RELATIONS, 8(1), 77-101. (2002).

The European Court of Justice (ECJ) ruled that the French mining company's activities violated international law. The ECJ ordered the French company to pay restitution to the downstream parties.³¹

IV. LEGAL FRAMEWORK

Although there are over 800 international agreements dealing with environmental matters, only a few deal specifically with transnational pollution.³² And with isolated exceptions, the transnational treaties that do exist are largely devoted to encouraging information-sharing and consultation, rather than establishing liability regimes or prescribing substantive limitations on polluting activity.

1. *The Boundary Water Treaty, 1909 and the International Joint Commission*

The Boundary Water Treaty of 1909 provided the foundation of international environmental law between the United States and Canada.³³ The Treaty was intended to “prevent disputes regarding the use of boundary waters...and to make provision for the adjustment and settlement of all such questions as may hereafter arise.”³⁴ The key substantive provisions of the treaty are the anti-pollution standards and the limitations on diversions or uses of boundary waters “affecting the natural level or flow of boundary waters on the other side of the [border] line”.³⁵

International Joint Commission has played a critically important role in studying potential threats to the transnational environment and informing both the public and decision-makers in the United States and Canada.³⁶ However, while the International Joint Commission is regarded as objective and fair, its role and work is limited to references made by the two governments.³⁷

2. *The Stockholm Declaration*

The Stockholm declaration concede to State the “sovereign right to exploit their natural resources pursuant to their environmental policies,” but that States at the same time have responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or area beyond the limits of national jurisdiction.³⁸

The Trail Smelter arbitration ruling was incorporated into the United Nations Conference on the Human Environment Stockholm Declaration of 1972, which provides in its Principle 21 that:

³¹ Global Change Instruction Programme. Protecting and Managing Transnational Watercourses”, International Environmental Law. Available at <https://www.ucar.edu/communications/acip/m3elaw/m3pdfcq.pdf> (Accessed on Sept. 2017)

³² Merrill, *supra* note 3, at 933.

³³ Treaty Relating to Boundary Waters between the United States and Canada, U.S.-Gr. Brit. (for Can.), Jan. 11, 1909, 36 Stat. 2448 [hereinafter Boundary Waters Treaty].

³⁴ *Id.*, at 2448

³⁵ *Id.*, at 2449

³⁶ Several commentators have noted the importance of the Boundary Waters Treaty and the International Joint Commission. See Sharon A. Williams, *Public International Law and Water Quality Management in a Common Drainage Basin: The Great Lakes*, 18 CASE W. RES. J. INT'L. L. 155, 178-79 (1986).

³⁷ See Daniel K. DeWitt, *Note, Great Words Needed for the Great Lakes: Reasons to Rewrite the Boundary Waters Treaty of 1909*, 69 IND. L.J. 299, 306-07 (1993).

³⁸ U.N Conference on the Human Environment, U.N Doc. A/CONF.48/14.

States have, in accordance with the Charter of the United Nations and the 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 or control do not cause damage to the environment of other States or beyond the limits of national jurisdiction.³⁹

The Stockholm principle has since been reaffirmed in numerous other charters and declarations, most notably in Principle 2 of the United Nations Conference on Environment and Development Rio Declaration of 1992⁴⁰ and in section 601 of the Restatement (Third) of the Foreign Relations Law of the United States.⁴¹

However, the principle has not been applied to actually prohibit all trans-boundary harm. Instead, the principle is often considered to be limited to “significant or substantial” trans-boundary harm, and perhaps further limited to include only a duty by the source to “undertake due diligence” to prevent significant or substantial trans-boundary pollution harms.⁴²

3. *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) 1972*

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) is the first global conventions to protect the marine environment from human activities and has been in force since 1975.⁴³ The main objective of the London Convention is to prevent indiscriminate disposal at sea of wastes that could be liable for creating hazards to human health; harming living resources and marine life; damaging amenities; or interfering with other legitimate uses of the sea. The 1972 Convention extends its scope over “all marine waters other than the internal waters” of the States and prohibits the dumping of certain hazardous materials. It further requires a prior special permit for the dumping of a number of other identified materials and a prior general permit for other wastes or matter.⁴⁴

³⁹ United Nations Conference on the Human Environment, Stockholm, Sweden, June 5–16 1972, Stockholm Declaration of the United Nations, 11 I.L.M. 1416, 1420 (June 16, 1972). The Stockholm principle has been reaffirmed in numerous other charters and declarations, most notably in Principle 2 of the United Nations Conference on Environment and Development Rio Declaration of 1992.

⁴⁰ See United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, June 3–14, 1992, Rio Declaration on Environment and Development, princ. 2, U.N. Doc. A/CONF.151/26, 31 I.L.M. 874, 876 (June 14, 1992).

⁴¹ Restatement (Third) of the Foreign Relations Law of the United States § 601(1) (1987) (“A state is obligated to take such measures as may be necessary, to the extent practicable under the circumstances, to ensure that activities within its jurisdiction or control . . . are conducted so as not to cause significant injury to the environment of another state or of areas beyond the limits of national jurisdiction.”).

⁴² Noah D. Hall, *The Centennial of the Boundary Waters Treaty: A Century of United States- Canadian Transboundary Water Management*, WAYNE LAW REVIEW, Vol. 54, p. 1417, 2008

⁴³ Tim Dixon et al., *International marine regulation of CO₂ geological storage. Developments and implications of London and OSPAR*, ENERGY PROCEDIA 1 (2009), 4503-4510. It entered into force in 1975. As of September 2016, there were 89 Parties to the Convention

⁴⁴ M.J. Mace, C. Hendricks and R. Coenraads, *Regulatory Challenges to the Implementation of Carbon Capture and Geological Storage within the European Union under EU and International Law*, INTERNATIONAL JOURNAL GREENHOUSE GAS CONTROL, 1 (2007), 253-260.

In 1996, the London Protocol was agreed to further modernize the Convention and, eventually, replace it.⁴⁵ Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on the so-called "reverse list". The Protocol reflects the global trend towards precaution and prevention with the parties agreeing to move from controlled dispersal at sea of a variety of land-generated wastes towards integrated land-based solutions for most, and controlled sea disposal of few, remaining categories of wastes or other matter.

The most important innovations brought by the protocol is the codification of the "precautionary approach" and the "polluter pays principle. The Protocol is, so far, the most advanced international regulatory instrument addressing carbon capture and sequestration in sub-seabed geological formations and marine reengineering.⁴⁶

The protocol has effectively moved the scope of the original London convention landwards, relating it to the policy and management issues of land as well as sea wastes disposal. Indicative for this shift are such elements as the codification of the precautionary approach and the establishment of requirements such as the "waste prevention audit," the identification and control of the sources of contamination for certain materials, and the collaboration with relevant local and national agencies that are involved in point and non-point source pollution control. In this context, Integrated Coastal Management (ICM) comes as a natural framework for effective implementation of the objectives of the protocol. Relying on its vast ICM technical expertise, the National Ocean Service (NOS) is to contribute to the creation of the necessary foundation for the US accession to the Protocol and, further on, to the protocol's implementation. Through its International Program Office, NOS would also contribute to the international co-operation efforts towards meeting the objectives of the Protocol.

4. Great Lakes Water Quality Agreements, 1997

Great Lakes constitute part of the border between the United States and Canada. Under the Great Lakes Water Quality Agreements of 1997 (GLWQA), parties undertake to eliminate or reduce to maximum extent practicable the discharge of pollutants, to prohibit toxic discharges, and adopt water quality standards and regulatory measures consistent with the objectives set out in the treaty. In achieving this U.S. Canada International Joint Commission (IJC) was created.

Under the GLWQA, the United States and Canada were concerned about the grave deterioration of water quality on each side of the boundary to an extent that is causing injury to health and property on the other side, as described in the 1970 report of the International Joint Commission on Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River.⁴⁷

The purpose of the GLWQA is to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem. In order to achieve this purpose, the Parties agree to make a maximum effort to . . . eliminate or reduce to the maximum

⁴⁵ The Protocol entered into force on 24 March 2006 and there are currently 48 Parties to the Protocol.

⁴⁶ Dixon et al, *supra* note 43.

⁴⁷ Great Lakes Water Quality Agreement, U.S.-Can., Apr. 15, 1972, 23 U.S.T. 301.

extent practicable the discharge of pollutants into the Great Lakes System.⁴⁸ Despite the lofty goals of the GLWQA, its implementation has been undermined by its sub-treaty status (it was never subject to approval in the U.S. Senate) and its failure to contain enforcement provisions.

5. *Air Quality Agreement, 1991*

The 1991 Air Quality Agreement between the United States and Canada was executed primarily in response to growing concerns over acid rain from sulfur dioxide air pollution, although the agreement covers all forms of transnational air pollution between the two countries.⁴⁹ The Air Quality Agreement provides for assessment and notification of transnational air pollution, cooperative scientific and technical activities and research, and the coordinated exchange of information.

The Air Quality Agreement is unique from the earlier agreement of its kind, because it engages citizens through its structure.⁵⁰ The Agreement creates an atmosphere of cooperation on transboundary pollution problems, and gives citizens a role in addressing these problems.

6. *The Convention on Long-Range Trans-boundary Air Pollution (CLRTAP)*

The Convention on Long-Range Trans-boundary Air Pollution (CLRTAP) was adopted in 1979⁵¹ and its aims were to reduce emissions of airborne cross-boundary pollutants within the UN Economic Commission for Europe (UNECE) region.⁵² The Convention was the first multilateral instrument addressing atmospheric environmental issues.⁵³

The Convention covers Europe and North America and calls on countries to "endeavour to limit and, as far as possible, gradually reduce and prevent air pollution, including long range transboundary air pollution". The protocols under the Convention aim to reduce emissions of pollutants which can result in acid deposition and ground level ozone formation.

7. *The Gothenburg Protocol (1999)*

The 1999 Gothenburg Protocol is part of the stepwise process of the Convention on Longrange Transboundary Air Pollution (LRTAP) aiming in the long run at the achievement of protection of health and ecosystems by bringing deposition and concentrations of pollutants below critical loads and levels. As instruments, the Protocol employs national emission targets and sets of emission limit values that should accomplish by 2010 the agreed interim environmental

⁴⁸ *Id.* See also Edith Brown Weiss, *Symposium on Prevention of Groundwater Contamination in the Great Lakes Region: New Directions for the Great Lakes Water Quality Agreement: A Commentary*, 65 CHI-KENT L. REV. 375, 377 (1989).

⁴⁹ Agreement on Air Quality, U.S.-Can., art. I(2), Mar. 13, 1991, 30 I.L.M. 676, 679 (1991)

⁵⁰ See Jeffery L. Roelofs, *United States-Canada Air Quality Agreement: A Framework for Addressing Transboundary Air Pollution Problems*, 26 CORNELL INT'L L.J. 421, 443-44 (1993)

⁵¹ This Convention has been amended in 1984, 1985, 1988 and 1994 at the Protocol on Further Reduction of Sulphur Emissions.

⁵² 29 European nation-states, the United States, Canada and the European Community signed the Convention.

⁵³ Marvin Sooros, *Arctic Haze and Trans-boundary Air Pollution* in Oran R. Young and Gail Osherenko (eds.) in *POLAR POLITICS: CREATING INTERNATIONAL ENVIRONMENTAL REGIMES*, Cornell University Press (1993). The CLRTAP was later followed by protocols regulating specific substances. Today, 51 parties have ratified the Convention. CLRTAP is one of the oldest international environmental conventions.

objectives that are a step towards the long-term objective. Important criteria for the national emission targets in the Protocol have been cost-effectiveness, equity and environmental progress towards the long-term environmental objectives.⁵⁴

The 1999 Gothenburg Protocol is to abate Acidification, Eutrophication and Ground-level Ozone to the Convention on Long-range Transboundary Air Pollution. The Protocol sets national emission ceilings for 2010 up to 2020 for four pollutants: sulphur (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs) and ammonia (NH₃). These ceilings were negotiated on the basis of scientific assessments of pollution effects and abatement options. Parties whose emissions have a more severe environmental or health impact and whose emissions are relatively cheap to reduce have to make the biggest cuts.⁵⁵

The Protocol also sets tight limit values for specific emission sources (e.g. combustion plant, electricity production, dry cleaning, cars and lorries) and requires best available techniques to be used to keep emissions down. VOCs emissions from such products as paints or aerosols also have to be cut. Finally, farmers have to take specific measures to control ammonia emissions. Guidance documents adopted together with the Protocol provide a wide range of abatement techniques and economic instruments for the reduction of emissions in the relevant sectors, including transport.⁵⁶

Parties have to report on their emissions once a year. In addition, the Protocol requires Parties to provide projections of their future emissions. This provides a forward-looking way, through which emission trends can be better assessed. It can also help countries in managing air pollution by adjusting measures in case of projected exceedances.⁵⁷

The Protocol was amended in 2012 to include national emission reduction commitments to be achieved by 2020 and beyond. Several of the Protocol's technical annexes were revised with updated sets of emission limit values for both key stationary sources and mobile sources. The revised Protocol is also the first binding agreement to include emission reduction commitments for fine particulate matter. Also for the first time, the Parties have broken new ground in international air pollution policy by specifically including the short-lived climate pollutant black carbon (or soot) as a component of particular matter. Reducing particulate matter (including black carbon) through the implementation of the Protocol is thus a major step in reducing air pollution, while at the same time facilitating climate co-benefits.

The revised Protocol also introduced flexibilities to facilitate accession of new Parties, mainly countries in Eastern and South-Eastern Europe, the Caucasus and Central Asia. Another novelty of the revised Protocol is a flexibility mechanism that allows Parties-under clearly

⁵⁴ UN, Economic Commission for Europe, Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to abate acidification, eutrophication and ground-level ozone, December 1999. See Ger Klaassen at al. *The Extension of the RAINS Model to Greenhouse Gases*, IIASA IR-04- 015 (2004).

⁵⁵ Kevin E. Trenberth et al., *Global warming and changes in drought*. NAT CLIM CHANGE 4(1):17–22 (2013).

⁵⁶ R. Maas et al., *Integrated Assessment - the tool*, in J. SLIGGERS AND W. KAKEBEEKE, EDS: *CLEARING THE AIR, 25 YEARS OF THE CONVENTION ON LONG RANGE TRANSBOUDARY AIR POLLUTION* (United Nations, ECE/EB.AIR84, New York and Geneva, ISBN 92-1-116910-0) (2004)

⁵⁷ Kevin T. Trenberth, *Framing the way to relate climate extremes to climate change*. CLIM CHANGE 115(2): 283–290 (2012).

defined circumstances-to propose adjustments to their emission inventories or emission reduction commitments listed in Annex II of the amended Protocol, thus recognizing both the uncertainties inherent in estimating and projecting emission levels and the need for continuous scientific and methodological improvements under the Convention.⁵⁸

8. *The Rotterdam Convention (2004)*

The Rotterdam Convention is a multilateral treaty to promote shared responsibilities and facilitate informed decision-making in relation to importation of hazardous chemicals.⁵⁹ It establishes a list of covered chemicals and requires parties seeking to export a chemical on that list to first establish that the intended importing country has consented to the import. It also requires that a party seeking to export a chemical that is not listed under the Convention but that is subject to a ban or severe restriction in its own territory must provide notice to the importing country of the proposed export.⁶⁰

The Rotterdam Convention establishes a Prior Informed Consent (PIC) procedure to ensure that restricted hazardous chemicals are not exported to countries that do not wish to receive them. The PIC procedure does not ban or restrict any chemicals, nor does it mean that any individual country must automatically prohibit their import. Parties implement the PIC procedure through extensive information exchange, priority attention to national decisions on imports, and obligations related to export controls.

9. *The Basel Convention on the Control of Transnational Movements of Hazardous Wastes and their Disposal*

The Basel Convention on the Control of Transnational Movements of Hazardous Wastes and their Disposal was adopted in Basel, Switzerland, on March 22, 1989. The Basel Convention includes hazardous wastes that are explosive, flammable, poisonous, corrosive, or toxic. The Convention required the exporting states to give notice to the importing states and its consent obtained before transporting the wastes.

10. *Bamako Convention*

The Bamako Convention which was adopted under the auspices of the Organization of Africa Unity (OAU) prohibits hazardous waste import into Africa. It was adopted at the Conference of Environmental Ministers in Bamako, Mali, on 30 January, 1991.

⁵⁸ Michael Jerrett et al., *Long-term ozone exposure and mortality*. N ENGL J MED 360(11):1085–1095 (2009).

⁵⁹ Formally, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

⁶⁰ Christine Full and Paul Whyllie, *The Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*. E-Learning Centre on Industrial Chemical Management CSD 19, New York, USA (2011).

11. The Harmful Waste (Special Criminal Provision) Act

In the year 1970 the environment was described as the issue of the year throughout the world and the United Nations Conference on Human Environment was held in 1972.⁶¹ Nigeria though signatory to so many of these multilateral treaties and was attendant at so many United Nation organized conferences did not come up with a viable environmental policy or strong legal framework for the protection of her environment until the occurrence of the unfortunate incident of dumping of toxic waste from Italy at Koko port in the then Bendel State in the 1988.⁶² It is in the light of this reality that very interesting strides were taken by Nigeria government in the late 1980's to propel Nigeria in the enviable direction of positive environmental protection management and regulation towards sustainable development.

Following the dumping of toxic chemicals in Nigeria by an Italian company in 1988, the Nigerian government promulgated the Harmful Waste (Special Criminal Provision) Act, 1988 aiming at prohibiting the dumping of hazardous and harmful substances on Nigeria territory. The Act prohibits the carrying, depositing and dumping of harmful waste on any land, territorial waters and matters relating thereto. This aspiration culminated in the establishment of the Federal Environmental Protection Agency and its inspectorate and enforcement department in 1991.

The Act was enacted with the specific object of prohibiting the carrying, depositing and dumping of hazardous wastes on any land, territorial waters and matters relating thereto. The Act is essentially a penal legislation. The offences are constituted by doing any of the act or omission stated in the section 12 of the Act. The jurisdiction of the Act is far reaching as it sought to remove any immunity conferred by diplomatic immunities and privileges on any person for the purpose of criminal prosecution. It is however important to note that despite its far reaching jurisdiction, it focuses mainly on criminal prosecution of damage and does not provide compensation to the victim of the damage.⁶³

Section 6 of the Act provides a very stringent sentence of life imprisonment and in addition the forfeiture of any aircraft, vehicle or land connected with or involved with the violation. However there is no decided case of any person whether natural or artificial prosecuted pursuant to the provision of the Act. It is equally presumptuous to hazard the assumption that no hazardous waste had found its way into Nigeria as contemplated by the Act since its enactment.

V. LIABILITY FOR TRANSNATIONAL ENVIRONMENTAL POLLUTION

The question of liability for transnational environmental pollution has generated a lot of debate. To appreciate the issues, it is imperative to take a hypothetical example, if a nuclear leakage in State A causes substantial damage in State B, then, who is to be held liable- the government of State A or the private party which owned the nuclear reactor? The manner in

⁶¹ The United Nations Conference on the Human Environment was held in Stockholm, Sweden from June 5–16 in 1972

⁶² Cecilia Chinwe Nwifo, *Legal Framework for the Regulation of Waste in Nigeria*, AFRICAN RESEARCH REVIEW, VOL. 4 (2) 491-501 (2010)

⁶³ *Id.*

which this question has been resolved in international law remains vague and ambiguous. There are two views to this question. The first is that the state is completely responsible for whatever happens within its jurisdiction. The other view is that the polluter should strictly be liable.

On the state liability, there is plethora of treaties and conventions which holds states responsible for causing transnational environmental pollution.⁶⁴ This principle has gained prominence in international law because it is every state's liability to protect other states from being injured. Nation state are to undertake due diligence so as to prevent environmental damage or harm being caused to other nation states.

Principle 21 of the United Nations Conference on Human Environment (Stockholm Declaration) accentuates upon states to ensure that damage is not caused to environment of other states.

The Trail Smelter case tries established state liability. The fact of the case was that due to mining smelter in British Columbia, pollution was being caused in Washington State. So as to resolve the dispute the case was referred to the international arbitration tribunal jointly by Canada and United States of America. It was held that:

No State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the cause is of serious consequence and the injury is established by clear and convincing evidence.

State responsibility is related to the precautionary principle which also demands States to take precautions against damage being caused to other nation states.

The polluter causing trans-boundary pollution may not be a state party but private persons. Private person's liability can be established through Polluter Pays Principles. The polluter pays principles imposes abatement costs on the polluter so that he is deterred from causing pollution as it leads to internalization of costs; it ferments the very fundamentals for liability; it ferments the very fundamentals for liability; it is essentially fault based liability which assumes that there is negligence on part of the offender.⁶⁵

Responsibility is a principle of international law that any breach of an engagement involves an obligation to make reparations. To prove a case for state responsibility the conduct of a person or group of persons is also considered as an act of a state under international law where it is establish that such person(s) was in fact acting on behalf of the state and exercising elements of governmental authority, whether authorized or not.

The international law has no exclusionist principle, as all states are responsible in law for their illegal or wrongful acts. This is founded on the basis that all states, irrespective of its size, population and development, exist as equals in the international community. The Doctrine of

⁶⁴ Tullio Scovazzi, *State Responsibility for Environmental Harm*, YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW, Vol. 12 Issue 1 (2001).

⁶⁵ Principle 16 of the Rio Declaration provides that "national authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment".

state responsibility is negated where the aggrieved state gives its consent, or the act was a counter-measure, or caused by necessity and self defence. Under international law, a state must meet relatively restrictive standards to attempt to invoke the responsibility. Injury suffered must be shown to attach to an interest that claimant state is legally entitled to protect.⁶⁶

The two universally accepted methods of determining liability in relation to state responsibility for environmental pollution, that is, state to state correspondence, and third party dispute settlement mechanism as is done by arbitration and International Court of Justice (ICJ).⁶⁷ The state to state responsibility tends to produce compromise solutions intended primarily to resolve divisible international disputes rather than to promote environmental protection which is the intendment of any legislation, local or international treaties. The third party dispute settlement on its own part has limited jurisdiction and accessibility to non-state claimants.

Various methods and means have been adopted by the international community for the discharge of responsibility for environmental pollution. The breach of state obligations in respect of responsibility for environmental pollution is remedied through:

- (a) Fines after prosecution where negotiations and arbitration may have been unable to resolve the problem.
- (b) Restitution may be adopted except that in cases where permanent damage is done to health due to environmental pollution restitution becomes inadequate and insufficient and sometimes impossible.
- (c) Polluter Pays Principle in which the body, be it individual, corporate or state that causes the pollution pays the cost of removal of the pollutant, and
- (d) Cost to third parties in the form of compensation or reparation, restitution, or restoration.

VI. CONCLUSION AND RECOMMENDATIONS

A review of the international law mechanisms demonstrate the inherent limitations and weaknesses of international environmental law, especially the lack of enforcement rights for the citizens most directly affected by transnational pollution. The legal regime of transnational responsibility for environmental pollution will be in abeyance, if international laws creating State responsibilities for transnational pollution are not incorporated in national laws. Harmonizing accepted international environmental law principles with respected and independent domestic legal mechanisms could create a system that prevents and peacefully resolves transnational environmental disputes, without threatening state sovereignty.

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⁶⁶ Iain Scobbie, *The Innovation of Responsibility for breach of 'Obligations under Peremptory Norms of General International Law*. EJIL, Vol. 13 No. 5 (2002)

⁶⁷ J. Patrick Kelly, *State Practice as Metaphor. A Reconciliation Approach*, STATE PRACTICE AND INTERNATIONAL LAW JOURNAL (SPILJ), VOL. 1:1-16 (2014).