

MANAGEMENT OF PLASTIC WASTE THROUGH THE LENSES OF BASEL CONVENTION

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Introduction

“The most environmentally friendly product is the one you didn’t buy.”

– Joshua Becker²

This excellent piece of observation comes from the mind of a minimalist author and blogger from the United States of America, making us realize, that we don’t help Mother Earth to become clean from waste just by buying an eco-friendly label product but by reviewing our shopping habits and choosing items that are reusable.

Given the fact that plastic is so harmful, but still why is it so widely used? Answer to this is, it is cheap, easy to use and light to carry. **Historically speaking** plastic is made from polymer glass, when it was invented, the products of plastic that we see today was made up of wildlife products which were rare and costly at the same time. The best substitute for them was plastic which was invented in 1862 by Alexander Parks of London, who mixed cotton with acid to make cellulose nitrate, and this led to the invention of plastic in the world. Thereafter Dr. Leo Bakeland made world’s first phone make of synthetic plastic called Bakelite. This is how modern plastic came into the world especially during World War II when various categories of plastic got further invented. Plastic also make us possible some revolutionary inventions like its use in aircraft, space objects to slowly creeping into our daily lives in the form of bottles, plastic bags, as it was cheap and could be commercialized. The biggest problem regarding plastic is **first** its non-biodegradable nature as it will take approximately three generations to decompose the plastic which we have buried. **Second**, is **deforestation as** modern day plastic is made from petroleum, which is drilled from land after clearing forests. **Third** and the most important issue is **Climate Change as** plastic production leads to formation of greenhouse gasses which leads to rise in

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temperature, global warming and hence climate change.³ Plastic is thus harmful to an extent to an extent that the further two paragraphs presents its prevalent catastrophe that it offers.

There are two reports to second this opinion of how far have we come in damaging the environment. In our first shocking report published by the Environmental International Journal, micro plastics have been detected in human blood, these particles can travel all around the body and cause damage to human cells as people consume tiny plastic particles every day in the form of food or water, the three main sources of plastic used everyday are plastic water bottles, plastic food packaging material and polythene bags , hence a proposal was rightly made by India at the 14th meeting of the Basel Convention to prevent developed countries from dumping their electronic and plastic waste into developing countries which unfortunately was defeated. In pursuance of adherence to this convention recently Ministry of Consumer Affairs Food and Public Distribution announced a blanket ban on all types of single-use plastic products in all its public sector undertakings including food corporations in September 2019.⁴

In our second recent report of the International Journal of Environmental Pollution in a three year joint Indo-United Kingdom research project, a team of 15 scientists have found out presence of 51 organic chemicals in the waters of the iconic river Ganga in the stretch of 500km between Varanasi in Uttar Pradesh and Begusarai in Bihar, the composition of these chemicals includes pharmaceutical, agrochemical, industrial and lifestyle products making pious river Ganga an extremely polluted river. The main source of these pollutants is discharge of untreated and municipal sewage which not only affect the lives of humans but also the aquatic flora and fauna. It is very unfortunate that in the state of Bihar cancer patients are rising every day reason being, the increased amount of arsenic present in the villages in Bihar which makes it the fourth largest state in the country when it comes to death caused by cancer cases.⁵

³SarthakGosawmi, *How these plastic items are killing us!!*, YOUTUBE, (March 31, 2023), available at https://www.youtube.com/watch?v=HX_gEjCylFo, (last visited on April 26, 2023).

⁴Ministry of Environment, Forest and Climate Change, *Ban on identified Single Use Plastic Items from 1st July 2022* (June 28, 2022), available at <https://pib.gov.in/PressReleasePage.aspx?PRID=1837518>, (last visited on April 21, 2023).

⁵*Cancer patients rising due to drinking arsenic-rich water in Bihar villages* (Feb 4, 2023), available at <https://www.aninews.in/news/national/general-news/cancer-patients-rising-due-to-drinking-arsenic-rich-water-in-bihar-villages20230204233223> (last visited on April 14, 2023).

The reason to this menace of water pollution is the dumping of industrial and toxic waste in the environment which was highlighted in the year **1987 in Brundtland Commission Report entitled 'Our Common Future' in 1987⁶**, as a result of this report the **first Earth Summit** took place at **Rio de Janeiro in 1992** with the objective to ponder upon as to the ways and extent of human environment that harms natural environment. This marked a beginning for other treaties to take place on the issues of biomedical waste management, environment protection, and sustainable development.

This brings us to the debate as to Development v. Environment, but the answer to this is that neither of them can sustain without the other i.e. development will always be at the cost of environment, hence the topic of the debate should not be as to whether development should happen or not rather development should always be focused to be sustainable i.e. when the environment is damaged only to a certain level wherein it is able to rejuvenate itself. Hence the environment should not lose its assimilative capacity so that whole ecosystem is preserved in its natural state which is also guaranteed in our Indian Constitution as **right to live in a healthy environment** is guaranteed “Right to Life” as envisaged under Article 21 of Indian Constitution⁷ and Article 25(1) of the Universal Declaration of Human Rights⁸ advocating the right to a standard of adequate living for health and well-being of the individual including medical care, sickness, and disability. Hence it is the duty of the government and the people together to cure the menace caused by plastic pollution.

⁶Report of the World Commission on Environment and Development: Our Common Future, available at <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>, (1987)

⁷“Article 21 in the Constitution of India-Protection of life and personal liberty No person shall be deprived of his life or personal liberty except according to procedure established by law”.

⁸“Article 25(1) of the Universal Declaration of Human Rights- Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.”

International Environmental Jurisprudence

The root of environmental jurisprudence was laid down in the Stockholm Conference in 1972⁹ when for the first time global environmental governance was given prominence as depletion natural resources, environmental corrosion, and pollution was a top concern and thus a need was felt by the world community to develop green fraternity.¹⁰ Hence the stepping stone for development of environmental jurisprudence was laid down in the year 1960 but the real milestone was achieved only in the 1970s¹¹ due to the development of International Bill of Rights which constitutes “**the International Covenant on Economic Social and Cultural Rights, the Universal Declaration of Human Rights, and the International Covenant on Civil and Political Rights** are collectively known as the International Bill of Rights.” To state it specifically, Article 6(1) of the **International Covenant on Civil and Political Right 1966**¹² provides that when toxic substances are discharged in the environment then it is pertinent to see that the release of heat is proportional to the assimilative capacity of the environment so that irreversible damage is not inflicted upon the environment, and this brings us to the concept of precautionary principle that calamity/disaster should be prevented rather than restored. Today the world is facing an immense challenge of disposal of wastes leading to severe pollution of land, water and air.

Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal

The conventions on management of biomedical waste is first the **Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal** adopted on March 22, 1989 by the Conference of Plenipotentiaries in Basel, Switzerland, it came into force in 1992. It is an international treaty that aims to reduce the movement of hazardous waste between countries focusing on prevention of transfer of hazardous waste from developed to less developed countries.

⁹United Nations, *Conferences / Environment and sustainable development, available at <https://www.un.org/en/conferences/environment/stockholm1972>*, (last visited on April 26, 2023).

¹⁰Satish C. Shastri, *Environmental Law* 332 (Eastern Book Company, Lucknow 3rd ed., 2008).

¹¹Birnie Patricia and Boyle Alan, *International Law and the Environment* 616 (Oxford University Press, 2009).

¹²“Article 6 (1) of the International Covenant on Civil and Political Right 1966-Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life.”

History suggests that the need for this convention arose when stringent environmental laws were introduced in developed nations during 1970s which led increase in disposal costs for hazardous waste, simultaneously due to globalization of the shipping industry cross border movement of waste started. Since less developed countries were hungry for foreign currency, hence trade in hazardous waste started with poorer countries from developed countries which also led to a number of high-profile incidents of hazardous waste-dumping incidents. First being the Khian Sea waste disposal incident¹³ which led to the creation of the Basel Convention. The facts of the case are a ship carrying incinerator ash from the city of Philadelphia in the United States dumped half of its load on a beach in Haiti, when it was forced away the name of the ship was changed several times, but since it is believed that the ship was unable to unload its cargo dumped much of its waste in the high seas.¹⁴

After this case the parties to the Basel Agreement held a meeting between Nov. 27, to Dec. 1, 2006 to discuss issues on issues of electronic waste and the dismantling of ships and increased trade in recyclable materials and hence the deliberations at the meeting led to formation of the Basel Convention. There is a remarkable number of 190 countries who are parties to this convention including India.

Basel Convention is an international treaty formulated to prevent transport of hazardous waste from developed to under developing/developing nations as it aims to minimize the quantity and toxicity of wastes generated so that wastes can be managed in an environmentally sound manner close to their place of generation. Basel Convention prohibits transport of hazardous waste, **these category of wastes are listed under Annexure I** of the convention, and should possess **hazardous characteristics as mentioned under Annexure III** i.e. being explosive, flammable, toxic, or corrosive, apart from this annexure IX consists of wastes that are non-hazardous and excluded from the category of hazardous waste, although if such waste contains in its composition some elements of hazardous waste then it would fall under the category of hazardous waste. Hazardous waste also has another categorization when it falls under the laws of the exporting country, the importing country, or any of the countries of transit. Alongwith rules

¹³Well There's Your Problem Podcast, *Episode 61: Khian Sea Disposal Incident*, YOUTUBE (April 22, 2021), available at <https://www.youtube.com/watch?v=6h9mNj10nSQ>, (last visited on April 22, 2023).

¹⁴Mark Jaffe, *Garbage Barge (Khian Sea)*, available at <https://philadelphiaencyclopedia.org/essays/garbage-barge-khian-sea>, (last visited on April 23, 2023).

and conditions on import and export of such wastes, Basel Convention also lists stringent requirements for notice, consent and tracking for movement of wastes across national boundaries. The parties to the convention are not allowed to export covered wastes or import covered wastes from non-parties to the convention.

Challenges Associated with the Convention

There are **four challenges** associated with the Basel Convention, **first** being, that trafficking of illegal hazardous waste is criminal but still does not provide for any enforcement mechanism for its contravention eventhough parties under Article 12 are provided with guidelines to create a protocol determining their liability rules and procedures enough to address damages that comes from the movement of hazardous waste across borders. **Second** being, the category of radioactive wastes are not covered which fall under the category of international control systems and wastes from the normal operation of ships. **Third** being, that the United States of America is still not a party to this convention, given the fact that USA is a superpower and produces the world's most per capita waste and has actively opposed the Ban Amendment as it gives it the freedom to export its shipments to Asian and African countries, yet export shipments of plastic waste from the United States are now considered as "criminal traffic as soon as the ships get onthe high seas," according to the **Basel Action Network (BAN)**¹⁵, making the carriers liable for transportation of plastic waste.¹⁶

Fourth being, that the convention places a general prohibition on the export or import of wastes between parties and non-parties, this gives room to an exception that whenever such "wastes" fall under the subject of another treaty, then Basel Convention will be wholly incapable in such a scenario leading to a situation of conflict like in the case of United States of America which is a non-party to the convention and freely transports its wastes to Basel Party countries. Similar is the case with The Organisation for Economic Co-operation and Development Council as it has its own control system which controls the transboundary movement of hazardous materials between OECD member countries and even with United States of America. This poses a serious

¹⁵Champions of Environmental Health and Justice, *Basel Action Network (BAN) is a trusted expert, compassionate advocate, and global partner for environmental justice, available at <https://www.ban.org/about-us>*, (last visited on April 22, 2023).

¹⁶United States Environmental Protection Agency, *New International Requirements for the Export and Import of Plastic Recyclables and Waste, available at <https://www.epa.gov/hwgenerators/new-international-requirements-export-and-import-plastic-recyclables-and-waste>*, (last visited on April 22, 2023).

challenges as the main aim with which Basel Convention was formulated is being defeated meaning thereby that waste production and management should happen at source as Article 4 of the Basel Convention provides for reduction of waste generation at source rather than generation of such hazardous wastes in a distant wealthy country and dumping it in a poor country hungry for foreign currency, hence adherence to this convention should be made mandatory for all countries so that the purpose with which Basel Convention was formed as this convention encourages countries to keep their generated wastes within their boundaries i.e. close to their source of generation and through internal pressures incentive should be given for prevention of pollution and reduction of waste. Moreover these hazardous wastes are transported in the name of “**recycling**” of waste. In the name of recycling these wastes are burned, melted and chemically stripped off by unprotected workers working in highly polluting environment. Further the by-products of such processes like old ships, hazardous asbestos and flammable gases and oils end up on beaches in South Asia which cause pollution, occupational disease and death due to fires and explosions.¹⁷

The challenges posed by Basel convention were manifold after its adoption making some developing countries and NGOs that such challenges will not be addressed by this convention as nations were demanding a total ban on shipment of hazardous waste to developing countries instead of only a "prior informed consent" system for import countries receiving wastes from other countries. Further in the name of ‘recycling’ many waste trader countries started justifying all their exports for moving it to recycling destinations.

Basel Ban Amendment

As a result of this in 1995, **Basel Ban Amendment**¹⁸ to the Basel Convention was introduced through **Basel Action Network (BAN)** which is a United States based charity organization based in Seattle, Washington, United States, with a partner office in the Philippines, created due to lobbying of developing countries, Greenpeace and several European

¹⁷ Champions of Earth and Environmental Justice, *Global Ban on Exporting Hazardous Wastes to Developing Countries Becomes Law* (Sep. 8, 2019), available at <https://www.ban.org/news-new/2019/9/8/global-ban-on-exporting-hazardous-waste-to-developing-countries-becomes-law>, (last visited on April 23, 2023).

¹⁸United Nation Environment Programme, *The Basel Convention Ban Amendment*, available at <http://www.basel.int/Implementation/LegalMatters/BanAmendment/Overview/tabid/1484/Default.aspx>, (last visited on 23rd April, 2023).

countries.¹⁹BAN is a charitable civil society non-governmental organization that acts as a consumer watchdog watching over the implementation of the Basel Convention to curb transborder trade of toxic waste including plastic from developed countries to developing countries. A total number of 103 countries are parties to this amendment; it was adopted on the Sep. 22, 1995 and entered into force on Dec. 5, 2019.²⁰This Ban Amendment became an international law of global waste dumping prohibition to protect human health and the environment against the adverse effects of hazardous wastes, when Croatia ratified it on September 6, 2019 as it was the 97th country to ratify the ban.²¹The major change that this amendment introduced in the Basel Convention is that it prohibited all exports of hazardous wastes, including electronic wastes and obsolete ships from a list of developed countries (Organization for Economic Co-operation and Development and the European Union)²² to developing countries (non OECD countries). Further the export was also banned even if export was for any other reason including recycling. In a nutshell the Basel Ban Amendment can thus be said to be hailed as a landmark agreement for global environmental justice. This Basel Ban Amendment to become effective still needs to be ratified by the most important countries of the world like **United States of America**, Canada, Japan, Australia, New Zealand, South Korea, Russia, **India**, Brazil, and Mexico as “developing world should not be used as a dumping ground for toxic effluent of the affluent.”²³Hence the Basel Ban Amendment is a legal necessity in today’s world and every country in the world should be obligated to close the sad chapter of toxic colonialism done in the name of recycling.

¹⁹ United Nations, *Amendments to the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal* (Sep. 22, 1995), available at <https://treaties.un.org/doc/Publication/CN/2019/CN.420.2019-Eng.pdf>, (last visited on April 23, 2023).

²⁰ United Nation Environment Programme, *Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, available at <http://www.basel.int/Countries/StatusofRatifications/BanAmendment/tabid/1344/Default.aspx>, (last visited on April 23, 2023).

²¹ DTE Staff, *Basel Ban Amendment becomes law* (Sep. 10, 2019), available at <https://www.downtoearth.org.in/news/waste/basel-ban-amendment-becomes-law-66651>, (last visited on April 23, 2023).

²² United Nations Human Rights Office of High Commissioner, *For ratification of the Basel Ban Amendment: Letters to several States*, available at <https://www.ohchr.org/en/special-procedures/sr-toxics-and-human-rights/ratification-basel-ban-amendment-letters-several-states>, (last visited on April 23, 2023).

²³ Catherine Early, *Law to end "toxic colonialism" comes into force* (Sep 9, 2019), available at <https://www.businessgreen.com/news/3081319/law-to-end-toxic-colonialism-comes-into-force>, (last visited on April 23, 2023).

Regulation of Plastic Waste under Basel Convention

There was a major outcry in May 2019 when governments of at most 180 countries of the world met together to come at a common agreement to include plastic waste in the category of hazardous wastes prohibiting its cross boundary transfer. In a recent report published in the Science reporter it is estimated that “the mass of land based plastic entering the ocean is calculated at 275 million metric tons of plastic waste generated from 192 coastal countries, in the year 2010 with 4.8 to 12.7 million metric tonnes entering the ocean.” Without waste management infrastructure improvements, the cumulative quantity of plastic waste available to enter the ocean from land is predicted to increase by an order of magnitude by 2025. If improvements are not made in waste management infrastructures then the cumulative quantity of plastic waste available to enter the ocean from land is predicted to increase by an order of magnitude by 2025.²⁴

The Basel Convention contains three main entries on plastic wastes in Annex II, VIII and IX of the Convention. The main crux of their texts is that cross border transport of plastic waste is made more transparent and better regulated under Basel Convention. It also imposes duties upon the government that it should not only ensure the environmentally sound management of plastic waste instead tackle plastic waste at its source.²⁵ Simultaneously a new partnership was also built on plastic waste to bring together business, government, academic and civil society resources, interests and expertise to aid in creation of novel measures to curb cross border transport of plastic and treat plastic waste at source through creation of tools, best practices, technical and providing financial assistance.

The United States of America produces an annual 42 million metric tons of plastic waste, more than any other country in the world²⁶ and it is shocking that it has so vehemently opposed the Basel Ban Amendment, but it did not have to opportunity to try and block the treaty

²⁴Jenna R. Jambeck, Roland Geyer, *Plastic waste inputs from land into the ocean*(Feb 13, 2015), available at <https://www.science.org/doi/10.1126/science.1260352>, (last visited on April 24, 2023).

²⁵ United Nations Environment Programme, *Governments agree landmark decisions to protect people and planet from hazardous chemicals and waste, including plastic waste* (May 11, 2019), available at <https://www.unep.org/news-and-stories/press-release/governments-agree-landmark-decisions-protect-people-and-planet>, (last visited on April 24, 2023).

²⁶Laura Parker, *U.S. generates more plastic trash than any other nation, report finds* (Oct. 30,2020), available at <https://www.nationalgeographic.com/environment/article/us-plastic-pollution>, (last visited on April 24, 2023).

as it is not a party to the convention, as a result of it export shipments of plastic waste from the United States are now "criminal traffic as soon as the ships get on the high seas," according to the Basel Action Network (BAN), making the carriers of such shipments liable as Basel Convention prohibits cross boundary transfer of plastic to any and every country in the world.²⁷ **India became a signatory to the Convention on March 15, 1992 and this convention was entered into force on Sep. 22nd, 1992.**²⁸ An amendment was introduced in the Basel Convention in the year 2019 at its 14th meeting at Geneva in which guidelines were laid down with respect to movement of hazardous waste in including plastic waste making global trade in plastic waste transparent, regulated ensuring its sound management which is safe for human health and environment²⁹. This amendment is very effective seeing the menace of plastic waste which has been acknowledged as a major environmental problem of global concern.

Conclusion

The biggest challenge that our planet is having is that of plastic pollution, plastic has not only crept into our lives, be it our water bottles, mobile phones, kitchen utensils, furniture.....making the list endless but also in our blood vessels. Thanks to the great research by scientists and brilliant documentaries such as the BBC's Blue Planet 2 and campaigns by the likes of Greenpeace and the Plastic Pollution Coalition that at least we have become aware about such a daunting situation. The world produces 260 million tonnes of plastic per year, of which around 10% ends up in the ocean³⁰. This **plastic does not degrade on its own, and single use plastics** with its throw away culture has made the problem more worse as it takes approximately 99 years to completely decompose it, making it end up in the marine ecosystem, either mistakenly eaten as food by aquatic ecosystem and thereby entering humans through water or sea food. Further plastic is a synthetic material; it doesn't biodegrade easily and will only degrade or

²⁷United Nations Environmental Protection Agency, *International Agreements on Transboundary Shipments of Hazardous Waste*, available at <https://www.epa.gov/hwgenerators/international-agreements-transboundary-shipments-hazardous-waste>, (last visited on April 24, 2023).

²⁸United Nation Environment Programme, (Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal), U.N. Doc. 28911 (1989).

²⁹United Nations Environment Programme, (Basel Convention Plastic Waste Amendments), (2019).

³⁰ Michelle Allsopp, Adam Walters, David Santillo, and Paul Johnston, *Greenpeace report (Plastic Debris in the World's Oceans, 2006)*, available at https://www.greenpeace.to/greenpeace/wp-content/uploads/2011/05/plastic_ocean_report.pdf (last visited on April 26, 2023).

break down into small pieces, releasing toxins thereby polluting the soil, wildlife and the fragile ecosystem at large.

Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes is an international treaty that aims to reduce the movement of hazardous waste between countries focusing on prevention of transfer of hazardous waste from developed to less developed countries. Recently under this Convention cross border transport of plastic waste is made more transparent and better regulated as it imposes duties upon the government that it should not only ensure the environmentally sound management of plastic waste instead tackle plastic waste at its source. In adherence to this convention recently Ministry of Consumer Affairs Food and Public Distribution announced a blanket ban on all types of single-use plastic products in all its public sector undertakings including food corporations in September 2019 which is a positive and welcome measure by the government of India to tackle the menace of plastic waste pollution. Given the fact that plastic is convenient and cheap its use cannot be curbed³¹ but the solution is to **recycle, reuse, reduce** and treat its waste management at source so that countries take responsibility to produce less plastic and reuse and recycle it through the lenses of Basel Convention i.e. by making sure that the compliance procedure brought by Basel Convention is adhered to as it is our duty that we leave our Planet Earth **green and abundant for our children and grandchildren as much as possible** as plastic cannot be decomposed easily, hence its focus should be next on less of production but more on re-consumption.

³¹Kelly Oakes, *Plastic has seeped into every aspect of our existence. Can we live without it?* (June 8, 2022), available at <https://www.bbc.com/future/article/20220526-what-would-happen-if-we-stopped-using-plastic> (last visited on May 4, 2023).