

Bridging the Basel Convention Gaps with the Future Plastics Treaty Basel Action Network (BAN), Environmental Investigation Agency (EIA), Global Alliance for Incinerator Alternatives (GAIA)

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I. Introduction

The growing momentum to address plastic pollution through global governance has seen the emergence of new international regulations on the management of plastic waste under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal ("Basel Convention" or "the Convention"). While these new Basel Convention controls on plastic waste trade and management are vital, to date, they only partially address the continued threat the trade and management of plastic waste poses to workers, communities, ecosystems and planetary boundaries.¹ This threat includes the specific injustices experienced by developing countries inundated with plastic waste that they are neither responsible for nor able to manage in an environmentally sound manner.² These shortcomings are, at times, due to structural limitations in the Basel Convention's mandate, legal gaps within its provisions, and an alarming record of insufficient enforcement.

While recognising and supporting the need to avoid duplication of mandates, institutions and resources between treaties, the new legally binding international instrument to end plastic pollution ("Plastics Treaty" or "the Treaty") offers an excellent opportunity to highlight and fill gaps that either fall outside the scope of the Basel Convention or that the Basel Convention is not effectively addressing. This paper aims to identify those gaps relating to the management of plastic waste that are both within the Basel Convention mandate as well as those falling outside of its scope. As a matter of coherence in international governance to solve the plastic pollution crisis, it is incumbent on members of the Plastics treaty Intergovernmental Negotiating Committee (INC) to find the means to fill these gaps or, as appropriate, press the Basel Convention Parties to fulfil its mandate with respect to plastic waste.

II. The Basel Convention and Plastic Waste

The Basel Convention's general obligations include the minimisation of the generation of hazardous and other wastes and ensuring environmentally sound management (ESM) for wastes that cannot be avoided. Further, the Convention aims to minimise the transboundary movement of hazardous and other wastes and strictly regulates wastes which are moved across national frontiers. To achieve this minimisation of transboundary waste, the Convention promotes, to the extent possible, national self-

¹ Nine planetary boundaries have been identified to date: climate change, stratospheric ozone depletion, atmospheric aerosol loading, ocean acidification, altered biogeochemical flows (phosphorus and nitrogen cycles), freshwater use, land-system change, loss of biosphere integrity and novel entities. Plastics are a type of novel entities and contribute to weakening all other boundaries. See Villarrubia-Gómez, P., et al. (2022). <u>Plastics Pollution and the Planetary</u> <u>Boundaries framework</u> (SSRN Scholarly Paper 4254033).

² See, for example, GAIA (2019). <u>Discarded: Communities on the Frontlines of the Global Plastic</u> <u>Crisis</u>, or EIA (2021). <u>The Truth Behind the Trash</u>.

sufficiency in waste management. Offshoring waste to countries that lack the infrastructure to manage that waste, especially from developed countries to developing countries, attacks the aim and spirit of the Convention as manifested in its preamble.³

Thus, waste trade controls are implemented to ensure transparency, consent, and the safe recovery or final disposal of hazardous and other wastes, mitigating the harm to human health and the environment. These trade controls can be based on prohibitions on trade or, at a minimum, a notification and consent regime known as prior informed consent (PIC). These Basel rules are critical for developing countries, which are especially vulnerable to waste exports that take place to externalise the costs and harm from rich, industrialised countries to the rest of the world.⁴ Therefore, the Basel Convention is a critical instrument for global environmental justice.

In 2019, the Conference of the Parties (COP) to the Basel Convention adopted decisions amending its Annexes to include plastic wastes (Plastic Waste Amendments)⁵ and to take further action to address plastic waste under the Convention,⁶ notably by updating the outdated 2002 Basel Convention technical guidelines on plastic wastes. By adopting the Plastic Waste Amendments, Parties intended to appropriately review and list all plastic wastes in accordance with three new categories – B3011 for non-hazardous plastic wastes, A3210 for hazardous plastic wastes and Y48 for all other plastic wastes. However, in actual implementation, they did not achieve this aim.

Gaps in the plastic waste listings are largely due to plastic wastes still categorised as part of older non-hazardous waste listings, like textile waste, or by the absence of a listing where plastics are routinely mixed in, like refuse derived fuel (RDF). These gaps are further explored in Section III(D), and Parties must fill these gaps with alacrity. Further, we note that enforcement and implementation of the Plastic Waste Amendments are lacking either due to countries simply not properly controlling the export and import of Y48 or A3210 or by creating exceptions of dubious legality for themselves, attempting to justify these using Article 11.

³ "Convinced that hazardous wastes and other wastes should, as far as is compatible with environmentally sound and efficient management, be disposed of in the State where they were generated." Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, 22 March 1989 (1673 UNTS 126, 28 ILM. 657), preamble [hereinafter, Basel Convention].

⁴ EIA (2023). <u>Plastic Waste Power Play The offshoring and recycling displacement involved in</u> <u>trying to recycle EU plastic waste and GAIA (2021). Plastic Waste Has Arrived In Latin America:</u> <u>Trends And Challenges In The Region</u>.

⁵ Basel Convention (2019). <u>BC-14/12: Amendments to Annexes II, VIII, and IX to the Basel</u> <u>Convention</u>.

⁶ Basel Convention (2019). <u>BC-14/13: Further actions to address plastic waste under Basel</u> <u>Convention</u>.

In 2023, the Basel Convention COP adopted the updated Technical guidelines on the ESM of plastic wastes (Plastic Waste Guidelines).⁷ The Plastic Waste Guidelines give a comprehensive overview of formal plastic waste management options. Crucially, they intentionally exclude "chemical recycling" processes from the approved environmentally sound guidance.⁸ However, they fail to:

- a) provide a clear framework for Parties to manage plastic wastes in a manner that effectively puts prevention first and is environmentally sound, preserving both human health and just levels for all nine planetary boundaries;
- b) highlight the current limits of true circularity in managing plastic waste and the challenges of plastics collection, recycling, recovery and disposal even in best-case scenarios; nor,
- c) outline criteria to qualify, or even adequately describe, the impacts on human health and the climate regarding local harm and exceeding just levels for all nine planetary boundaries.

Some of these shortcomings stem from limitations in the Basel Convention ESM Framework. We will explore these gaps in greater detail below.

III. Exploring Some Gaps in the Basel Convention's Controls on Plastic Waste Trade and Management

A. Failure to prioritise upstream solutions

The Basel Convention requires that each Party take appropriate measures to "[e]nsure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects."⁹ The Convention's tenth COP adopted the 2011 Cartagena Declaration that committed "to enhancing the active promotion and implementation of more efficient strategies to achieve prevention and minimisation of the generation of hazardous waste and other wastes and their disposal."¹⁰

The Convention's Framework for the environmentally sound management of hazardous wastes and other wastes (ESM Framework), adopted in 2013, also references

⁷ UNEP (2023). Technical guidelines on the environmentally sound management of plastic wastes, UNEP/CHW/16INF/11/Rev.1.

⁸ GAIA (2023). <u>The tide is turning on chemical "recycling"</u>.

⁹ Basel Convention, Art. 4.2(b).

¹⁰ Basel Convention (2011). <u>Cartagena Declaration on the Prevention, Minimization and</u> <u>Recovery of Hazardous Wastes and Other Wastes</u>. Operative Paragraph (OP) 1.

prevention and minimisation as its first guiding principle¹¹ and highlights the waste hierarchy in the following terms:

"In applying the framework, stakeholders should respect the waste management hierarchy (prevention, minimisation, reuse, recycling, other types of recovery, including energy recovery, and final disposal). It is recommended that resources and tools be allocated in accordance with the Hierarchy".¹²

However, the Convention has no real implementation mechanism for Article 4.2(b), and neither the Cartagena Declaration nor its 2017 waste prevention and minimisation guidance are legally binding.¹³ The ESM Framework is also non-binding guidance. Even the Convention's non-binding technical guidance, meant to detail ESM for different waste streams and waste-management processes according to Article 4.8, often neglects prevention and certainly do not prioritise it.

The introduction of the 2002 Plastic Waste Guidelines mentioned prevention and the waste hierarchy only to emphasise the primacy of recycling, while the substance of the guidelines lacked references to prevention altogether. The 2023 Plastic Waste Guidelines represent a significant improvement in this respect, with a new section on waste prevention and minimisation that states the primacy of prevention and cites policy approaches to achieve it, including redesign and brief mentions of reuse and repair, as well as numerous references to recycling. Tellingly, the guidelines dedicate four pages to prevention against fifteen pages for recycling - a far cry from the ESM Framework's injunction "that resources and tools be allocated in accordance with the [waste] Hierarchy".

Ultimately, the Basel Convention's binding obligations on plastic waste are controls on the trade of hazardous plastics (Annex VIII listing A3210) and plastics requiring special consideration (Annex II listing Y48). Meanwhile, all references to upstream waste prevention solutions, both in the Convention text and in decisions adopted by its COPs, are limited to a few pages of voluntary guidance that lacks the power to curb the plastic pollution crisis.

The global community suffers from a Convention that calls waste prevention the first priority in waste management but only treats the matter as aspirational and nonbinding. Prevention of waste should be obligatory and binding. Thus, it is our strong

¹¹ United Nations Environmental Programme (UNEP) (2013). Framework for the environmentally sound management of hazardous wastes and other wastes, UNEP/CHW.11/3/Add.1/Rev.1, §10(a).

¹² Ibid. at §11.

¹³ UNEP (2017). Guidance to assist Parties in developing efficient strategies for achieving the prevention and minimization of the generation of hazardous and other wastes and their disposal, UNEP/CHW.13/INF/11/Rev.1.

belief that the Basel Convention is not well placed to promote plastic waste prevention and avoidance because it is not a binding mandate of the Convention. Therefore, in our view, this must be the primary task of the new Plastics Treaty.

B. Polluting waste management left unregulated

The open burning of plastic waste is the most harmful way to mismanage plastic waste. It is banned under the national legislation of virtually all countries, although it remains widely practised. Mechanical recycling, plastic-to-fuel, burning in cement kilns, incineration and landfilling also generate many forms of pollution that breach both human rights and planetary boundaries across generations.

For instance, plastic waste in landfills or stockpiled for recycling or other recovery often catches fire, resulting in harm similar to open burning. Such fires trigger significant toxic and carbon emissions, harming local and planetary environmental and human health. The burning of plastic waste in incinerators, cement kilns and other industrial furnaces as RDF and via the pyrolysis of plastic waste to create fuel or "chemical recycling" also releases significant carbon emissions, toxic air pollution, and hazardous sludge or ash (that in cement kilns is incorporated into cement aggregate) containing dioxins, furans, heavy metals and other toxics.¹⁴ Incinerator ashes are also a source of microplastics and plastic-derived POPs.¹⁵ With plastic-to-fuel pyrolysis, in addition to being carbon-intensive, dioxins end up in the pyrolysis oil, among other toxic contaminants and chemicals.¹⁶ US EPA scientists have found some of these chemicals to be so dangerous that they expect all people exposed to them over a lifetime to develop cancer.¹⁷ Solvent-based "chemical recycling" is also carbon-intensive and particularly toxics-intensive due to reliance on toxic solvents.¹⁸

Mechanical recycling often requires the addition of virgin material. It is usually openloop ("downcycling"), meaning that recyclate is not used in the same type of product that became waste in the first place, limiting true circularity.¹⁹ Further, it passes and sometimes concentrates toxic additives into recyclate materials while generating

¹⁴ GAIA (2022). <u>Waste incineration and burning waste in cement kilns</u>.

¹⁵ Yang, Z., et al. (2021). <u>Is incineration the terminator of plastics and microplastics?</u> Journal of Hazardous Materials, Vol. 401, 123429. Shen, M., et al. (2021). <u>Can incineration completely</u> <u>eliminate plastic wastes? An investigation of microplastics and heavy metals in the bottom ash</u> and fly ash from an incineration plant. Science of the Total Environment, 779, 146528.

¹⁶ GAIA (2022). <u>Plastic-To-Fuel: A Losing Proposition</u>.

¹⁷ Lerner, S. (2023). <u>EPA Approved a Fuel Ingredient Even Though It Could Cause Cancer in</u> <u>Virtually Every Person Exposed Over a Lifetime</u>, Pro Publica.

¹⁸ GAIA (2020). <u>Chemical Recycling: Status, Sustainability, And Environmental Impacts</u>.

¹⁹ GAIA (2023). <u>Plastics Circularity: Beyond the Hype</u>.

significant microplastics.²⁰ Meanwhile, compostable and biodegradable plastics release carbon dioxide and microplastics²¹ when they decompose, and their long-term impacts on soil health and ecosystems are unknown. Recent findings suggest that some compostable film microplastics may favour moulds that produce carcinogenic aflatoxins, undermining soil quality as well as food safety and security.²²

The assumption that countries can mitigate the residual harm from wastemanagement processes to the point where they are safe for health and the environment (e.g., through filters and scrubbers) is erroneous but widely accepted. High levels of dioxin emissions were recorded from a state-of-the-art incinerator using the best available technology in the Netherlands,²³ and incinerators continue to generate large quantities of toxic ash (up to 30% of the volume of incoming waste) and high carbon emissions (around 1 tonne of CO₂e per tonne of waste²⁴). Ultimately, some forms of waste management, notably thermal treatment of plastic waste (e.g., pyrolysis, gasification, incineration and co-incineration), as well as processes based on toxic solvents (e.g., solvent-based purification and "chemical recycling"), are intrinsically polluting because of the physics and chemistry of those processes. These forms of waste management simply cannot be mitigated to become compatible with the human right to health or just and safe planetary boundaries.

Unfortunately, in light of the above, the Basel Convention lacks binding rules on limiting pollution from plastic waste management. Instead, as expressed in technical guidelines, it has non-binding guidance that usually fails to live up to the Basel Convention's established definition of ESM. The definition of ESM is:

"taking all practicable 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."²⁵

Concerningly, the Plastic Waste Guidelines describe technologies that have not "taken all practicable steps," which must include design and avoidance measures that might

²⁰ Brown, E., et al. (2023). <u>The potential for a plastic recycling facility to release microplastic</u> <u>pollution and possible filtration remediation effectiveness</u>. Journal of Hazardous Materials Advances, Vol. 10.

²¹ Liao, J., & Chen, Q. (2021). <u>Biodegradable plastics in the air and soil environment: Low</u>

<u>degradation rate and high microplastics formation</u>. Journal of Hazardous Materials, 418, 126329. ²² Accinelli, C., et al.(2020). <u>Persistence in soil of microplastic films from ultra-thin compostable plastic bags and implications on soil Aspergillus flavus population</u>. Waste Management, Vol. 113, pp. 312–318.

 ²³ Zero Waste Europe & Toxico Watch (2018). <u>Hidden emissions: A story from the Netherlands.</u>
²⁴ UKWIN (2021). <u>Good Practice Guidance for Assessing the GHG Impacts of Waste Incineration</u>, authored by Josh Dowen.

²⁵ UNEP (2013). Framework for the environmentally sound management of hazardous wastes and other wastes, UNEP/CHW.11/3/Add.1/Rev.1, Definitions.

question the production of the polymers, additives and products themselves. Apart from not living up to the definition of ESM, the Plastic Waste Guidelines fail to establish quantitative and qualitative criteria to clearly distinguish between acceptable emissions and unacceptable pollution or impacts.

Finally, while the Plastic Waste Guidelines reflect, if insufficiently, the Basel Convention's traditional recognition of toxic impacts from wastes and their management, they worryingly neglect other forms of pollution and environmental harm – notably harm to the climate and biodiversity as well as the overuse of water resources. The Plastic Waste Guidelines include a single paragraph referencing the impacts of plastic waste management on the climate and air pollution (paragraph 9), a single mention of water use issues with no quantitative guidance on the threshold between necessary and unnecessary water use (paragraph 217), and no reference to biodiversity impacts.

The Plastic Waste Guidelines also label almost all plastic waste-management processes by inclusion as "ESM" despite their continued harm to human health and the environment. Yet a Party's ability to distinguish ESM recycling from non-ESM recycling is a binding obligation of the Convention, and forbidding exports to non-ESM destinations (Article 4.2.e and g) is vital for compliance with the Convention and its Plastic Waste Amendments. Annex IX listing B3011 only applies provided plastic waste defined in the listing "is destined for recycling in an environmentally sound manner." However, the Plastic Waste Guidelines leave authorities unequipped to determine ESM recycling from non-ESM.

Given the glaring inability of the Basel guidance to adequately describe the harmful impacts of many common forms of plastic waste management, including mechanical recycling, or to distinguish harmful and non-harmful waste management practices, there is a crying need for more work done. We believe that given the fact that the Basel Convention has just concluded its mandate to update the Plastic Waste Guidelines after four years of work and has failed to provide such fundamental distinctions and guidance, the new Treaty is the correct instrument to establish a mandate to deliver these unvarnished truths and establish binding criteria for what might be redefined as truly environmentally and socially sound management.

C. Inadequate consideration of hazardous polymers and additives

Despite growing awareness of the hazardous polymers and additives ubiquitous in current plastic production, the Basel Convention to date has not comprehensively addressed these chemicals of concern. The Secretariat of the Basel Convention joined the United Nations Environmental Programme in publishing a technical report outlining how serious and dangerous plastics are at all stages, including wastes during disposal or leakage into the environment.²⁶ The report identifies ten groups of chemicals as a major concern for their high toxicity and high potential of release into the environment. These chemicals are found in products across all sectors, which raises grave concerns for all plastic products. While one of the primary objectives of the Basel Convention has been to define and regulate hazardous waste trade and management, almost nothing has been done to consider additives when defining which plastic wastes are hazardous waste.

Many questions still arise as to whether hazardous additives, routinely added to polymers, or hazardous unintentional additives from manufacturing processes or other sources, will qualify plastic wastes as A3210 – the new definition of hazardous plastic waste. While we know that hazardous additives are added to plastic products, it is still unclear when plastic products, and therefore waste at end of life, exhibit hazardous characteristics under the Basel Convention. For years, the Convention has avoided, with few exceptions, placing concentration limit values on hazardous waste definitions. Efforts to do so have been correctly rebuffed as unworkable or lacking in exercise of the precautionary principle.

What is recognised is that as long as the waste has an Annex I constituent or listed waste stream and at the same time exhibits a hazardous characteristic, it must be considered a hazardous waste. We would posit that many Annex I constituents/waste streams, including Y13, Y31, Y26, Y37, Y45, are at times plastic additives that will clearly trigger an Annex III hazardous characteristic such as H6.1, H11, H12 and H13. The fact is, then, that many additives qualify plastic wastes as being hazardous wastes. Nevertheless, Basel's head remains firmly in the sand on this point.

Perhaps the greater question is, in the absence of actual knowledge of the chemical composition of any given shipment of mixed plastic waste, which is almost always the case in actual trade, should it not all be considered presumptively hazardous? After all, Article 1.1.a of the Convention establishes a rebuttable presumption that the waste will be hazardous "unless they do not possess...". The rebuttable presumption means if one does not actively show the absence of hazardous characteristics listed in Annex III, Parties should presume untested or unverified plastic wastes are hazardous. Applying Article 1.1.a should mean that loads of mixed plastics derived from various products and sources, as they usually are, contain differing additives and thus must be presumed hazardous until proven otherwise and that the burden to prove the absence of hazardous characteristics lies with the exporter. However, States are not applying this interpretation, and loads of plastics, single polymer or not, are assumed without evidence to be B3011 or Y48 instead of A3210, turning the rebuttable presumption test on its head.

²⁶ UNEP (2023). <u>Chemicals in Plastics - A Technical Report</u>.

So far, the work that has been done to define which wastes in trade are A3210 can be found in the newly adopted Basel Plastic Waste Guidelines²⁷ and the European Union (EU) Guidelines No 12.²⁸ While these are a good start, they fail to indicate a practical way to assess the hazardous content of shipments of traded plastic wastes.

From Correspondents' Guidelines No 12:

"15. It is noted that additives, such as fillers, plasticisers, stabilizers, colorants and flame retardants, are usually part of plastics. The presence of certain additives in plastic waste, such as brominated flame retardants that are persistent organic pollutants or lead or cadmium in PVC, may lead to a classification of the plastic waste in question as hazardous waste and covered by entries A3210 or AC300."

The phrase here, "may lead to," is ambiguous. Further, in the Basel Plastic Waste Guidelines, we find:

"28. The addition of hazardous additives or processing aids has the potential to render plastic waste hazardous, difficult to recycle or not suitable for recycling. A recent analysis of the global governance of plastics indicates that 128 chemicals of concern used in the plastics life cycle are currently regulated by existing multilateral environment agreements, such as additives, processing aids and monomers and non-intentionally-added substances."

Again, the phrase "has the potential to" lacks real guidance to Parties. With only weak suggestive remarks to embolden them, all Basel Parties remain blissfully perhaps, but illegally, ignorant of the fact that plastic wastes, even those shipped as a sorted single polymer-type plastic, should likely be shipped as A3210 per the definition of hazardous waste. However, the norm is that plastics are not analysed for hazardous substances and are nonetheless shipped as Y48 or B3011, despite the presumption of hazardousness going unrebutted.

Still, plasticisers, flame retardants and colourants can leach into other products in recycling processes or the environment and persist or concentrate in recycled materials. Further, during disposal these chemicals can contaminate soil and water and enter the food chain through crops, livestock and aquatic life. Toxic chemicals from plastics that leach into the soil can harm plant and microbial life, affecting soil quality and fertility.²⁹ Those contaminating water sources affect aquatic ecosystems, threaten

²⁷ Ibid.

²⁸ European Commission (2021). <u>Correspondents' Guidelines No 12</u>.

²⁹ Wang, F., et al. (2022). <u>Effects of microplastics on soil properties: current knowledge and future perspectives</u>. Journal of Hazardous Materials, Vol. 424, 127531.

wildlife and can bioaccumulate in the food chain.³⁰ Flame-retardants in plastics also contribute to the persistence of microplastics in incinerator ash,³¹ while brominated flame-retardants (BFRs) contribute to the formation of brominated dioxins and furans during burning, incineration or other thermal treatment.

Notwithstanding the Secretariat's participation in the above-mentioned report and their reflection in the Plastic Waste Guidelines, the Basel Convention does not address the hazardous polymers and additives used in plastic production, leaving a dangerous gap in regulation where chemicals of concern that threaten human health and persist in the environment avoid regulation. The Plastic Treaty must help address the toxicity of plastic and increase transparency, marking and labelling throughout a product's lifecycle.

D. Failure to regulate all plastics, particularly those mixed into existing nonhazardous waste stream listings

The Basel Convention restricts plastic waste exports, except for sorted, mostly nonhalogenated, single-polymer plastic wastes that are almost free from contamination and destined for environmentally sound recycling and related narrow exemptions.³² These characteristics summarise the definition of non-hazardous plastic wastes – B3011. However, several types of plastics that should be controlled under the Convention because they do not fall under the above definition continue to be traded as nonhazardous under historical listings – which have institutionalised significant regulatory loopholes. Some examples include synthetic textiles, rubber wastes (currently mostly made from plastics as synthetic rubbers have displaced natural rubbers), RDF, plastics in e-waste, plastics in cars (e.g., autofluff), laminate packaging, and plastics mixed in paper bales.³³ For the sake of brevity, we will expand on a few examples of such gaps.

³⁰ da Costa J.P., et al. (2016). <u>(Nano)plastics in the environment–Sources, fates and effects.</u> Sci. Total Environ., pp. 566–567.

³¹ Yang, Z., et al. (2021). <u>Is incineration the terminator of plastics and microplastics?</u> Journal of Hazardous Materials, Vol. 401, 123429.

³² As well as mixes of polyethylene, polypropylene and/or polyethylene terephthalate, almost free from contamination and when those are destined for separate environmentally sound recycling, as specified in Basel Convention Annex IX listing B3011.

³³ The hidden/forgotten Basel Plastic Wastes were the subject of a <u>webinar</u> given by the Basel Action Network and IPEN at the 16th Conference of the Parties [hereinafter BAN/IPEN Webinar].

1. Textiles

Today, textiles are a significant contributor to the pervasive plastic waste crisis due to their often-overlooked synthetic nature.³⁴ Modern textiles frequently incorporate plastics in the form of synthetic fibres such as polyester, nylon, and acrylic - fossil fuelbased plastics. The durability of this material means that textiles made from synthetic fibres are not biodegradable; they persist in the environment for hundreds of years, breaking down into smaller microplastic particles that infiltrate ecosystems, contaminate water sources, threaten wildlife and have been found in humans.³⁵ The production of synthetic textiles also demands substantial energy and resources, contributing to greenhouse gas emissions and exacerbating the overall plastic waste problem.³⁶ The trade in textile waste is massive, with container loads of used clothing, carpets, etc., moving daily from developed to developing countries.³⁷ About 60% of our clothing today is synthetic, using polymers such as polyamide (e.g. nylon), polyester, and acrylic. However, Parties are ignoring textiles under the new Basel Convention Amendments, which were supposed to cover all plastics.

By all accounts and a plain reading of the new Plastic Waste Amendment listings, textile waste should almost certainly be considered Y48 because the plastic is "contaminated" with blends of different synthetic fibres, natural fibres and other materials and will most certainly be shipped as mixed polymers. However, textiles are not currently considered Y48 plastic because of the existence of the older listings B3030 (textile wastes) and B3035 (waste textile floor coverings, carpets). This use is, of course, unacceptable as textiles clearly are plastic waste and contribute as much, if not more, to the plastic pollution crisis as other commonly consumed plastic products.³⁸

2. Plastics mixed into bales of paper wastes

Massive amounts of paper wastes move across the world from Japan, Europe, Australia and North America to countries like Indonesia and India. Due to the ubiquity of mixed plastic and paper packaging and the difficulty in separating these mixed materials by hand or machine, between 25 and 50% of the bales shipped to the massive paper

³⁴ European Environment Agency (2021). <u>Plastic in textiles: towards a circular economy for</u> <u>synthetic textiles in Europe</u>.

³⁵ Jenner, L., et al.(2022). <u>Detection of microplastics in human lung tissue using µFTIR</u> <u>spectroscopy</u>. Science of the Total Environment, Vol. 831, 154907.

³⁶ EIA (2022). <u>Connecting the Dots: Plastic pollution and the planetary emergency</u>.

³⁷ See, for example, Changing Markets (2023). <u>Trashion: The stealth export of waste plastic</u> <u>clothes to Kenya</u>.

³⁸ "Washing synthetic products has caused more than 14 million tonnes of microplastics to accumulate on the bottom of the oceans. In addition to this global problem, the pollution generated by garment production has a devastating impact on the <u>health of local people, animals</u> and ecosystems where the factories are located. European Parliament (2023). <u>The impact of textile production and waste on the environment (infographics</u>).

recycling mills in such countries are plastic.³⁹ As these plastics harm the paper recycling process, the pulping mills go to great lengths to remove such plastics before recycling the paper, although a significant portion remains and ends up in paper mill wastewater as microplastics. Removed plastics pile up alongside the pulp mills as mountains of rejects. They are often set ablaze or given to local businesses as fuel to produce tofu⁴⁰ or sugar⁴¹ or for home use. Burning mixed plastic wastes of this kind creates emissions of some of the deadliest known compounds, including dioxins, furans and polycyclic aromatic hydrocarbons (PAHs). Thus, this plastic waste trade is some of the deadliest so far reported in terms of local impact.

The combustion of these plastics also contributes to the climate crisis as fossil fuels, sequestered for a short time as plastic, are reintroduced as carbon dioxide into the atmosphere. Still, this form of plastic waste export is not being controlled under Basel due to the historic Annex IX listing of B3020 (paper, paperboard, and paper product waste), failing to recognise that paper waste is not, in fact, just paper waste. One might rue this fact as simply an oversight needing an appropriate fix. However, instead of correcting the problem now identified in several journalistic reports,⁴² the twenty-seven EU Member States have institutionalised the mistake.

The EU formalised this exemption to Basel controls in their EU Correspondent's Guidelines #12:

"A waste that, among other materials, contains plastic but can be classified under a specific entry in the Annexes III, IIIB and IV of the WSR (e.g., waste metal cables coated or insulated with plastics (see entries A1190 and B1115), waste electrical and electronic equipment (see e.g., entries A1180, B1110 and GC020) or waste vehicles (see entry B1250)), cannot be classified under one of the entries on plastic waste, but is to be classified under the relevant specific entry."⁴³

It seems incongruent for a listing meant to cover all plastic waste, made after older listings containing plastic wastes, not to supersede the older listings. However, this work was not foreseen nor scheduled at the adoption of the Plastic Waste Amendments in 2019 and remains a serious oversight needing rapid remedy.

³⁹ Nexus3, Arnika, ECOTON & IPEN (2019). <u>Plastic Waste Flooding Indonesia Leads to Toxic</u> <u>Chemical Contamination of the Food Chain</u>.

⁴⁰ Ibid.

⁴¹ Ha, K. (2022). <u>Amazon Packages Burn in India, Final Stop in Broken Recycling System</u>. Bloomberg.

⁴² BAN/IPEN <u>Webinar</u> (2023).

⁴³ European Commission (2021). <u>Correspondents' Guidelines No 12</u>.

3. Refuse derived fuel

RDF is a type of fuel produced from various waste materials, including plastic waste, which is then burned in a process known as waste-to-energy or energy recovery. RDF is created by sorting and treating mixed municipal solid waste or industrial waste to improve its energy content. Plastic waste, which contains a range of toxic additives and chemicals, is a significant component of that waste due to its high calorific value.

Under Basel, as noted above, any particular RDF batch could qualify as being a hazardous waste containing a hazardous Annex I constituent with a hazardous Annex III characteristic.⁴⁴ However, due to the nature of its processing, wherein the product is composed of mixed wastes that differ in every batch, countries are unlikely to qualify it as hazardous waste categorically. Similarly, Parties may not even qualify RDF as a waste, seek to call it a product, and not look to the Annex II listings of Y46 or Y48. While the notion of considering RDF as fundamentally transformed enough to be considered a product as long as the waste destination of R1 in Annex IV exists is far-fetched, the ambiguity has resulted in a loophole where the continued export of RDF occurs without PIC and to non-OECD countries.⁴⁵

This loophole is dangerous because while RDF can provide an alternative energy source and reduce the amount of waste going to landfills, there are many adverse effects on the environment and human health associated with its production and combustion, particularly given what we know about hazardous additives in plastics and the results of combustion creating persistent organic pollutants (POPs) and PAHs. Yet by currently utilising this loophole, high-income countries are transferring harm to vulnerable communities in importing countries.

4. Closing the Basel loopholes of hidden and forgotten plastic wastes

In conclusion, while negotiating the Plastics Treaty, it is important to close harmful loopholes that have been identified as undermining the overarching objectives of both legal instruments. The first step should be for the Basel Convention to list RDF and plastic waste fuels as hazardous substances in Annex VIII. Likewise, hidden plastic wastes such as textiles, mixed paper waste bales contaminated with plastics, and rubber wastes (mostly composed of plastics), now caught in older listings presumed non-hazardous (on Annex IX), should at the very least be considered as Y48, as in most cases, they are mixed and contaminated. Additionally, plastics in e-waste, plastics in cars (e.g., autofluff), and laminate packaging should at least be considered Y48 wastes and

⁴⁴ Basel Convention, Article 1(1)(a).

⁴⁵ Bremmer, J. (2022). <u>Australian Refuse Derived Fuel: Fuel Product of Plastic Waste Export in</u> <u>Disguise?</u> National Toxics Network/IPEN.

possibly A3210. The Plastics Treaty should also facilitate a moratorium on using RDF and prioritise facilitating the shift from waste-burn facilities to clean energy.

E. Failure to properly enforce the existing trade violations following the new Plastic Waste Amendments

The Plastic Waste Amendments came into force in 2021. Unfortunately, there is a serious lack of proper implementation and enforcement. Trade data shows that noncompliance is likely to be widespread. There are two main types of failure to enforce the Plastic Waste Amendments: (1) failure to implement and enforce against illegal traffic in Plastic Wastes A3210 and Y48, and (2) trade between Parties and non-parties through the abuse of Article 11.

- 1. Failure to implement and enforce against illegal traffic in plastic wastes A3210 and Y48
- a) A3210 Hazardous Plastic Waste

The Basel Convention Parties barely enforce listing A3210 (hazardous plastic waste). Although the concept of hazardous plastic waste has been in the Convention since its inception, the Parties have not clearly defined which plastic waste streams truly fall under A3210. Questions still arise about whether hazardous additives routinely added to polymers qualify plastic wastes as A3210. Without such determinations, Article 1.1.a of the Convention indicates that all the plastic waste trade that may contain an Annex I constituent or described by an Annex I waste stream should be considered A3210 (see Section III.C).

b) B3011 - Non-Hazardous Plastic Waste

If plastic wastes meet the requirements for B3011, the Basel Convention will not control them. Therefore, any plastic that cannot be characterised as non-hazardous, un-mixed, single polymers, cured resin or condensation products, or on a finite list of fluoropolymers, that are uncontaminated and non-halogenated plastic wastes (except for exempted fluoropolymers) destined for environmentally sound mechanical recycling and not final disposal or waste-to-energy destinations, or chemical recycling destinations (since those are not environmentally sound) is controlled by the Basel Convention.

The primary problem with the actual implementation of the B3011 listing is that many plastics are collected from a variety of sources, and without comprehensive chemical analysis, it is usually impossible to ensure that the additives and other contaminants in a load of supposed B3011 plastic wastes are non-hazardous, or non-halogenated (e.g., not containing BFR additives). However, in practice, these analyses are cost-prohibitive, and

exporters rarely provide them but instead claim that the export is B3011 or Y48 with no supporting documentary proof.

However, as noted previously, the Basel Convention is based on the notion of "rebuttable presumption," with wastes presumed to be hazardous if they are listed on Annex I unless one can rebut that presumption by showing that they do not possess a hazardous characteristic on Annex III. Therefore, if a Party cannot rebut the presumption of the plastic waste being hazardous due to a lack of information, the default conclusion should be that the waste in question is presumed hazardous.

Further, as today's waste pre-management technologies make it very difficult to separate polymers and eliminate contamination, at the very least, most collected plastics should be considered at a minimum to be Y48. Therefore, Parties should rarely utilise B3011, and most waste should be prohibited or subject to the PIC procedure. Parties should be hesitant to accept designations of B3011 without greater scrutiny.

c) Y48 – Halogenated, Mixed, Incinerated or Contaminated Plastics

Y48 is the "catch-all" of the three listings and is meant to include all plastic waste that is neither hazardous (A3210) nor non-hazardous (B3011). Y48 plastics may not be hazardous per se but are likely to be very difficult to recycle safely and efficiently and, therefore, are likely to cause harm after transboundary movement. The primary four outlined characteristics of Y48 come with their enforcement challenges.

Almost free from contamination and other types of wastes: As the Basel Convention has not set an international definition, Countries have been interpreting the terms "almost free from contamination" at a national level.⁴⁶ Significant in this regard is the EU's level of allowable contamination as not exceeding 2% for exports out of the EU and not exceeding 6% within the EU.⁴⁷

Most of the plastic waste currently traded is likely to be contaminated at concentration levels greater than 6%. In 2016, California conducted a bale study of plastic wastes collected from households and small businesses and separated at Materials Recovery Facilities (MRFs), which showed contamination levels for polyethylene terephthalate (PET) bottles at 14.1% and coloured high-density polyethylene bottles at 11.1%.⁴⁸ Another significant source of plastic waste is agricultural film. An EU study recently found that the average level of contamination in agricultural film is 30-40%.⁴⁹ Plastics from postconsumer appliances, electronics, and automobiles, which are often shredded prior to attempts at sorting and recycling (such as car shredding and electronic waste shredding

⁴⁶ BAN. <u>Contamination Table</u>.

⁴⁷ European Commission (2021). <u>Correspondents' Guidelines No 12</u>, para 20.

⁴⁸ CalRecycle (2016). <u>State of Recycling in California Updated 2016</u>.

⁴⁹ Hann, S., et al. (2021). <u>Relevance of Conventional and Biodegradable Plastics in Agriculture</u>.

operations), are also rife with contamination. They do not only contain other plastics that create polymer mixtures but also can contain metals and other materials.

Mixed plastic wastes (with one exception): Plastic waste shipments made from a mix of polymers are Y48 except for mixes of polyethylene terephthalate (PET), polyethylene (PE) and polypropylene (PP), which are exempt from control if each of these polymers is separated and recycled upon arrival in the importing country. All mixed cured resins or condensation product (thermosets) waste shipments are Y48 since the exemption only applies to PET-PE-PP destined for separate recycling, and these plastics are overwhelmingly thermoplastics, while the rare thermoset forms of these polymers (e.g. some forms of PE) are not recyclable.

While it is unclear whether mixed PET, PE and PP are routinely, or ever, separated upon arrival at import facilities, wastes collected from households and small businesses in municipalities worldwide are overwhelmingly mixed at source. MRFs are increasingly designed to try to separate various types of plastic, but complete separation is difficult, given the large diversity of plastic waste collected.

Further, many end-of-life consumer products, for example, from the automotive and electronics industries, generate large volumes of mixed plastic waste. About 40% of the weight of consumer electronics is plastic. Still, the e-waste recycling industry can rarely separate the heterogeneous mixtures of the many plastics in electronic equipment. The methods for separating plastics removed from e-waste involve float-sink technologies utilising saline solutions of differing densities. Theoretically, these systems, which can be combined with electrostatic separators, can separate all polymers found in e-waste. However, such operations are messy, difficult and expensive, requiring as many as seven float sink tanks harnessed in sequence. They are only justifiable if there is a market for each of the separations, which currently there is not. Thus, we can conclude that most plastic waste shipments from municipal, agricultural and secondary recycling sources will be mixed and considered Y48.

Halogenated polymers (not listed in B3011): All halogenated polymers fall at least under Y48 if not A3210 except the ones listed in B3011. Indeed, the Basel Convention considers organohalogens to be a hazardous constituent of waste streams. The primary purpose of halogenation is to change the properties of a chemical to improve its performance as a material. Yet they typically introduce many acute and chronic toxicological impacts due to the limited natural formation of halogenated hydrocarbons and, thus, lack of immunities formed in flora or fauna. BFRs, a common additive to plastics, is the most commonly used halogenated polymer,⁵⁰ but they are also found in PVC and poly-

⁵⁰ Gwenzi, W., et al. (2022). <u>Chapter 5 – Occurrence and behaviour of emerging organic</u> <u>contaminants in aquatic systems</u>, Emerging Contaminants in the Terrestrial Aquatic-Atmosphere Continuum, pp. 67-86.

fluorinated tetra-ethylene (PFTE) wastes. PFTE is the chemical behind Teflon, which raises concern for being ever-present and everlasting in the environment. Halogenated plastic polymers are also widely used in making paints, semiconductors, and medical devices and products.

PVC waste is widely traded, often violating the newly established listing characterizing PVC wastes as being at least Y48. PVC waste trade is more easily tracked than other plastic wastes as it carries its own Harmonized Tariff Schedule (HS) code: HS39153.⁵¹ BAN observes many illegal exports of PVC wastes through scrutiny of Comtrade data or from subscriber-based trade data services (e.g., Panjiva or Datamyne). BAN has been able to show PVC shipments from the United States (US) to Asia and Mexico, which should be prohibited under the non-Party trade provision of the Convention, as the US is not a Party to Basel. BAN has also discovered illegal PVC waste exports from the EU, Y48 exports are illegal to non-OECD countries in Europe's application of the Basel Ban Amendment found in the EU Waste Shipment Regulation.⁵²

Moving to a non-R3 destination: Y48 covers waste otherwise meeting the definition of B3011 but destined for final disposal, like landfilling (D1), incineration (D10) or another form of recovery such as waste-to-energy (R1). While most plastic waste traded is moving for mechanical recycling, in practice, considerable fractions of what is intended for mechanical recycling are sorted away due to contamination or inability to economically process and end up being dumped or burned. In this way, even otherwise non-hazardous B3011 waste must be considered Y48 if any part of the loads meets a final fate of landfilling, incineration, or open burning, as well as environmentally unsound recycling. Yet, Parties seldom weigh this factor before consenting to B3011 waste shipments under the Basel Convention.

2. Article 11 abuse

Generally, Parties are not permitted to export or import controlled wastes to or from a non-Party.⁵³ However, Article 11 of the Convention provides one exception to the non-Party trade ban, wherein trade between Parties and non-Parties can take place:

"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 that are not less environmentally sound than those provided for by

⁵¹ Harmonized Tariff Schedule of the United States (2023, Revision 10). <u>3915.30.00 Of polymers of vinyl chloride</u>.

⁵² BAN, <u>U.S. Export Data.</u>

⁵³ Basel Convention, Art. 4(5).

this Convention in particular taking into account the interests of developing countries."

Parties intended to use Article 11 to condone agreements that were roughly equivalent to Basel controls to ensure that trade with non-Parties could occur, particularly in the years prior to wide-scale ratification. However, Parties did not intend Article 11 to institutionalize agreements weaker than the Basel Convention. Still, certain Parties, including some of the richest, most industrialized countries, are claiming an Article 11 basis for ignoring the new Plastic Waste Amendments. Below, we highlight some concerning examples of this form of noncompliance.

The EU and EEA double standard: To date, the EU has failed to properly implement the new amendments for the trade between Basel Parties within the European Economic Area (EEA). The European Commission's proposed Waste Shipment Regulation revision does not address this, nor provide an equivalent level of control for Y48 plastics.⁵⁴ Thus, wastes controlled by the Plastics Waste Amendments can be freely traded between the EU and European Free Trade Association (EFTA) member states making up the EEA. Recent proposed amendments by the European Parliament on the Waste Shipment Regulation, call for aligning the new waste shipment regulation fully with the Basel Convention's plastic waste amendments in relation to intra-EEA trade and remove the EEA member state Article 11 exclusion.⁵⁵ As of this writing, however, it is uncertain whether this vital correction will be made and if it is not corrected, the EU will be unlawfully ignoring the Plastic Waste Amendments obligations.

Canadian plastic waste "arrangement" with the US: In late 2020, shortly before the entry into force of the Plastics Waste Amendments, the US and Canada declared, through Article 11, an Arrangement to trade newly controlled plastic wastes. ⁵⁶ According to the two countries, this Arrangement, which "does not impose, and is not intended to impose any legal obligations on the Participants", ⁵⁷ allows Canada to freely trade with the US non-Party, ignoring the Plastic Waste Amendments and the Article 11 requirements for equivalent levels of control and therefore violates the Basel Convention.

⁵⁴ European Commission (2021), <u>Revision of the EU's Waste Shipment Regulation</u>.

⁵⁵ European Parliament (2023), <u>Amendments adopted by the European Parliament on 17</u> January 2023 on the proposal for a regulation of the European Parliament and of the Council on shipments of waste and amending Regulations (EU) No 1257/2013 and (EU) 2020/1056 (COM(2021)0709 – C9-0426/20, Amendment 5.

⁵⁶Arrangement Between the Government of Canada and the Government of the United States of America Concerning the Environmentally Sound Management of Non-Hazardous Waste and Scrap Subject to Transboundary Movement, 26 October 2020 [hereinafter <u>Canada-US</u> <u>Arrangement</u>].

⁵⁷ Canada-US Arrangement, Section III.

Mexico invokes the OECD Council Decision to trade plastic waste with the non-party US: Mexico has recently declared in letters to BAN that they consider their concurrent membership in the OECD with the US allows them to trade Basel-controlled plastic wastes (Y48) with the US without following Basel control procedures.⁵⁸ There is an OECD Decision in place that ordinarily could serve as a valid Article 11 agreement for those wastes covered by both the Basel Convention and OECD Council Decision. However, following US objection to the new listings in the OECD Decision, the OECD Council has not adopted two of the three new plastic waste listings (Y48 and B3011). Therefore, the OECD Decision cannot be considered a valid Article 11 agreement for plastic waste listed under Y48 and B3011, and trade of such plastic waste between Mexico and the US violates the Convention's legal requirements.

In sum, despite the contradiction with the terms of the Basel Convention's Article 11(1), Basel Parties (the EU Member States, Iceland, Liechtenstein, Norway, Mexico and Canada) continue to assert a claim to the legitimate use of Article 11 to ignore, all or in part, the Plastic Waste Amendments. Unfortunately, the Basel Convention does not have a governing body with the power to examine the validity of Article 11 agreements and enforce against invalid ones to hold Parties accountable for the above-mentioned violations.

The overarching failure to properly implement the PIC procedure and waste trade prohibitions invoked by the new listings A3210 and Y48 have resulted in poor enforcement records for the Plastic Waste Amendments. While most plastic waste trade today should be considered Y48 or A3210 for the above reasons and thus strictly controlled, this is not the reality. Far too many shipments of plastic waste proceed without PIC or prohibition.

As we begin negotiations under the new Plastics Treaty, the Basel Convention must be exhorted to improve enforcement of the new rules effectively. Key importing countries must ramp up border and port checks, and key exporting countries must cease utilising Article 11 to create a double standard for themselves. Proper enforcement of the Basel Convention is clearly the job of the Convention, but the new Treaty process can play a role in identifying the problem and providing pressure to ensure international law is enforced.

IV. The Plastics Treaty

The broad mandate in UNEA resolution 5/14 enables Member States to work together to adequately address the root causes of plastic pollution.⁵⁹ Resolution 5/14 urges

⁵⁸ BAN (2023). <u>Misuse of the Basel Convention Article 11 to Avoid Compliance with the New</u> <u>Plastic Waste Controls</u>.

⁵⁹ UNEA (2022). <u>UNEA Resolution 5/14 entitled "End plastic pollution: Towards an international legally binding instrument"</u>. UNEP/EA.5/Res.14 [hereinafter Resolution 5/14].

governments to "promote cooperation and coordination with relevant regional and international conventions, instruments and organizations, while recognising their respective mandates, avoiding duplication and promoting complementarity of action."⁶⁰ This anticipates a mandate of cooperation and collaboration. Thus, when gaps within the Basel Convention's mandate are found, they need to be reflected for action to the Convention, or as deemed appropriate by the Parties, taken up by the Plastics Treaty. Such direction is indeed the intent of this paper.

Through a better understanding of the current state of the Basel Convention's scope, obligations, implementation and enforcement gaps and challenges, the INC delegates can be well placed to make informed policy decisions on what to press for within the new Treaty or press the Basel Convention to better implement within their mandated work.

The following are a few recommendations for the new Plastics Treaty and the Basel Convention:

A. Putting prevention first

The Plastics Treaty must complement the Basel Convention's strength in downstream trade regulation by emphasising the upstream source of the waste itself – unsustainable design, production and use of plastics by implementing the prevention principle for plastic waste. The prevention principle, as codified in the 1972 Stockholm Declaration on the Human Environment,⁶¹ has long been a fundamental principle of environmental law. The prevention principle was most recently consecrated in the 2023 Maastricht Principles on the Human Rights of Future Generations.⁶²

A properly implemented waste management hierarchy must be the backbone of the Plastics Treaty, with the primary thrust being plastic waste avoidance through rethinking societal needs, redesigning how those needs are fulfilled, and making appropriate substitutions for systems and materials to ensure true circularity and elimination of negative externalities. One of the most impactful ways for the Plastics Treaty to uphold prevention principles and the waste hierarchy⁶³ is by adopting global targets for phasing out harmful and unacceptable uses of plastics and replacing these uses with new systems and materials, including through the scaling of reuse, refill and repair initiatives.

⁶⁰ Resolution 5/14, OP (k).

⁶¹ <u>1972 Stockholm Declaration on the Human Environment</u>, Principle 21.

⁶² <u>Maastricht Principles on the Human Rights of Future Generations</u>, Provision 9.

⁶³ For further information please see GAIA submission: <u>Part A - Scope and Principles</u> (2023) and EIA submission: Part A - <u>Elements not discussed at INC-2</u> (2023).

It is clear that the Basel Convention is not well placed to invoke the necessary binding obligations for prevention to truly be realised as the single most important priority. The global community understands we cannot solve the waste crisis without reducing plastic production. That is to say, we will not be able to recycle our way out of the plastic waste crisis. The greatest emphasis must be binding obligations for plastics production reduction and phase-outs of unacceptable and toxic products and materials. This should be the primary raison d'être of the Treaty.

B. Excluding polluting technologies through binding criteria

While the Basel Convention Plastic Waste Guidelines have provided an overview of the current state of formal plastic waste management, they do not go far enough to actually distinguish waste-management frameworks and processes that are compatible with just and safe planetary boundaries and human rights (environmentally and socially-sound management) from those that are not. The Plastics Treaty can start the necessary process to develop technical criteria to identify which plastic waste management operations are compatible with just levels for planetary boundaries and human rights, including the occupational safety of workers in the waste sector, and ban those technologies that fail. Such technical criteria could be developed in an annex and updated by the Treaty's scientific and technical bodies. They could include threshold values for the following quantitative criteria:

- Energy efficiency
- Carbon intensity (declining over time, consistent with Paris Agreement note carbon intensity reduction through carbon capture is not taken into consideration)
- Efficient use of material resources (what proportion of plastic waste input is conserved, by way of example, in recyclate, versus how much ends up in residual waste, emissions)
- Macro, micro, and nano-plastic emissions
- Level of toxic process emissions (e.g., hazardous waste streams generated by "chemical recycling" operations)⁶⁴
- Level of toxics in recyclate and other by-products
- Water use
- Land use

As well as some qualitative requirements:

⁶⁴ GAIA (2020). <u>Chemical Recycling: Status, Sustainability, And Environmental Impacts</u>.

- Respecting Indigenous communities' rights to consultation and prior and informed consent⁶⁵
- Ensuring that the location of new facilities prevents the accumulation of pollution-generating facilities in overburdened communities. Consideration given to the cumulative impact of all polluting facilities, not only those associated with the lifecycle of plastics
- Ensuring the rights of affected communities, including to information, meaningful participation and consultation, are upheld in decisions to build or expand plastic waste management facilities
 - C. Improving the Basel Convention's obligations to comprehensively define controlled plastic wastes, control plastic waste trade and ensure compliance

The Basel Convention has done more than any international instrument to provide solutions to the plastic waste crisis. Unfortunately, the Convention mandate does not encompass the scope requisite to ending this problem. Thus, we have recommended the above actions as first priorities for the new Plastics Treaty. However, it is incumbent on INC delegates to also promote actions either through the Basel Convention or within the Plastics Treaty to improve global governance on waste trade. Below, we highlight actions for strong consideration by the INC:

- 1. Take China's recommendation from Basel COP14 and require all plastic wastes be controlled by the PIC procedure (Y48). This measure is a highly practical suggestion to ensure compliance and eliminate the confusion over which wastes will require trade controls and which do not.
- 2. Ensure that all shipments of plastic wastes, for which composition of additives and polymers is not known, are considered as hazardous wastes (Basel A3210).
- 3. Ensure that all hidden and forgotten plastic wastes (see Section III.D) are included under the Basel Convention and Treaty. This must include unlisted plastic wastes such as Refuse Derived Fuel (RDF) as well as previously listed non-hazardous wastes such as textiles and rubber which currently evade controls due to historically lax treatment.
- 4. Ensure that Parties to the Plastics Treaty do not use Article 11 of the Basel Convention to ignore or circumvent the non-Party trade requirements adopted at the Basel Convention. All Article 11 Agreements must require an equivalent level of control to that of the Basel Convention itself.

⁶⁵ See United Nations Declaration on the Rights of Indigenous Peoples, Article 19; International Labour Organisation Convention No. 169 and other international guidance and national legislation.

V. Conclusion

The Basel Convention and its Plastic Waste Amendments have taken the critical first steps for the necessary international governance of plastic waste trade. Still, there are areas identified throughout this paper where new or strengthened international law can facilitate better implementation and enforcement of the Basel Convention and plastic waste prevention more generally, as well as clear criteria to identify environmentally and socially sound waste management from technologies that put health and planetary boundaries at risk. The Plastics Treaty mandate creates the opportune time for critical reflection of current governance in an honest effort to tackle the plastic waste crisis and make progress towards fulfilling these two instruments' overarching objectives.

Highlighted in Section III are some of the gaps have been identified in this paper, including the failure to prioritise upstream solutions including dealing with hazardous polymers and additives, as well as the current issues with regulation of all plastics and enforcement of those that are listed, and the lack of any binding rules to limit pollution and harm to health from plastic waste management. As highlighted in Section IV, the Plastics Treaty has the broad mandate to close some of these gaps and, as necessary, incite the Parties to the Basel Convention to take action to fill gaps within their purview. Section IV also provides explicit recommendations on ways the new Treaty can create complementary governance for international plastic waste trade, which correspond with additional measures in the Plastics Treaty that must be taken upstream, midstream and downstream to end plastic pollution.

The two instruments must work collaboratively and effectively to improve global waste trade governance. However, importantly, the new Treaty must utilise its broad mandate to, inter alia, reduce production to sustainable levels, eliminate toxic polymers and additives and increase labelling and transparency across the lifecycle of plastics. These measures, when taken with the expansion of the PIC procedure, reframing of plastic waste through the rebuttable presumption lens, the inclusion of hidden plastic waste in governance and adequate enforcement of the instruments, can begin to paint the full picture of plastic waste trade and management and allow countries to make informed decisions to reduce the associated harm to the environment and human health.

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