



environmental
investigation
agency

Ocean

Dirty Deals - Part One

Evidencing illegalities in the
global plastic waste trade

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ABOUT EIA

We investigate and campaign against environmental crime and abuse.

Our undercover investigations expose transnational wildlife crime, with a focus on elephants and tigers, and forest crimes such as illegal logging and deforestation for cash crops like palm oil. We work to safeguard global marine ecosystems by addressing the threats posed by plastic pollution, bycatch and commercial exploitation of whales, dolphins and porpoises. Finally, we reduce the impact of climate change by campaigning to eliminate powerful refrigerant greenhouse gases, exposing related illicit trade and improving energy efficiency in the cooling sector.

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Front cover: Stacks of plastic waste bales ready for export highlight the vast scale of the global plastic waste trade. With millions of tonnes crossing borders annually, the challenges in managing and tracking this waste often result in mismanagement and widespread pollution.

Above: Plastic waste is shipped around the world in container ships. The volume of waste shipped, and technology needed for inspections makes enforcement extremely challenging.

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Executive summary

Your old wheelie bin might be funding organised crime and fuelling environmental injustice and human rights violations around the globe.

In the shadows of the global economy, an ominous trade flourishes. The latest investigation by the Environmental Investigation Agency (EIA) uncovers shocking evidence of how bad actors exploit regulatory weaknesses, legal loopholes and outdated practices in the global plastic waste trade, fuelling a thriving illegal market. This trade, characterised by its complexity and global reach, involves a multitude of actors, regulatory codes, transportation methods and market dynamics that create an ideal environment for illicit activities.

In the first of this two-part report, we reveal the latest scam: exploiting the UK's Extended Producer Responsibility (EPR) scheme for packaging recycling with discarded wheelie bins. Despite the efforts of law enforcement agencies to track and dismantle illegal operations, the ongoing consequences of illegal trade inflicts devastating harm to human health and the environment.

This investigation exposes the dark underbelly of the plastics waste trade where deception, fraud and misrepresentation are common tactics to evade enforcement authorities and profit from environmental crimes. High-income nations, particularly those in the

Global North, are at the heart of this global trade, with seven European countries among the top 10 exporters of plastic waste.¹ In 2023, the Netherlands, Germany, the UK, Belgium, France and Italy were among leading exporters, joined by Japan, the US and Australia in shipping large amounts of waste to non-OECD countries.² Major exporting nations, such as the UK and the Netherlands, have resisted stricter regulations, including rejecting opportunities for a complete ban on waste exports, thereby perpetuating an unjust system that disproportionately harms vulnerable communities.³

The industry has portrayed plastic waste as largely recyclable, but the reality is much bleaker.⁴ Only about nine per cent of the plastic ever produced has been recycled; most of it is landfilled, incinerated or leaked into the environment.⁵ Significant volumes of the plastic waste collected in the Global North is sent on a clandestine journey, traversing oceans before being offshored in countries where dubious actors set up importing facilities faster than environmental protections can be legislated and enforcement can keep pace.⁶

The large surge in plastic waste is more vulnerable to being mishandled or displacing domestically generated waste from the opportunity to be recycled.⁷ This practice, known as waste colonialism, mirrors historical colonial exploitation, with wealthy, industrialised countries offloading their waste – including hazardous and non-recyclable waste – onto economically disadvantaged countries, perpetuating environmental and social injustice.

This investigation reveals that illegal waste trade persists despite increased attempts at governance. Notably, the UK's EPR scheme for plastic packaging is a breeding ground for fraud, where criminals siphon off an estimated £50 million annually. This fraud undermines legitimate recyclers and exacerbates waste colonialism – diverting funds intended to support recycling infrastructure and reduce the burden of the UK's waste abroad. Evidence of fraudulent practices – such as misdeclaring waste types or the quality of plastic being exported, duplicating loads and manipulating data – highlights the pervasive nature of the issue. Industry insiders suggest that organised crime may be infiltrating the recycling system, creating a more sophisticated and challenging network for law enforcement to address.

As in the UK, India's EPR system has been plagued by fraud and non-compliance. The Central Pollution Control Board (CPCB) uncovered large-scale fraud involving over 600,000 fake plastic recycling certificates.⁸ Some companies involved in the fraud issued certificates without processing any waste and others fabricated their operational status. These systemic issues highlight the challenges in enforcing EPR regulations and underscore the need for stronger international cooperation and

enforcement to combat the exploitation of waste management systems.

The second *Dirty Deals* report dives deeper into the illegal practices that permeate the global plastic waste trade, exposing how gaps in regulations and widespread corruption help enable the export of plastic waste, with a particular focus on Türkiye. The report highlights how bad actors exploit mislabelling, falsified documentation and the involvement of intermediaries to obscure the true destination and nature of plastic shipments, leading to severe environmental degradation and even human rights abuses. These findings help underscore the pressing need for enhanced governance and responsibility through increased transparency and monitoring.

The global plastic waste trade continues to pose significant environmental and health risks, undermining international efforts as mismanaged plastic waste causes huge amounts of pollution in every environment – it is the main source of pollution in rivers, lakes and oceans – but affects land, air and even soil.⁹

It also presents significant health and economic challenges for local communities and workers, particularly to the Global South, which bears the brunt of the Global North's exported plastic waste.¹⁰

These findings call for urgent reforms, stronger governance, cooperation and enforcement measures to address this pressing issue.

Above: A lifeless turtle lies amidst plastic waste, highlighting how mismanagement of plastic waste has become the largest source of marine pollution. Consuming or becoming entangled in debris leads to suffocation, starvation, and the loss of countless marine animals every year.



Background

To effectively address the issues presented by the global plastic waste trade, reducing plastic production must be a central focus of any long-term solution because business as usual, even with waste management improvement, will result in 119 million tonnes of plastic waste mismanaged by 2040.¹¹

Despite increasing global awareness of plastic pollution, production rates continue to grow, exacerbating waste management challenges. Between 2000-2019, virgin plastic production doubled from 234 to 460 million tonnes, in turn doubling the amount of plastic waste generated during the same period – two-thirds of which is concentrated in OECD countries and China.¹² As industries boomed and consumerism surged, the Global North struggled to manage the increasing volumes of plastic waste generated. Rather than addressing plastic pollution at its source by controlling the production of plastic and then increasing the necessary domestic collection, sorting and processing infrastructure to manage subsequent plastic waste, these countries instead opted for a seemingly convenient solution – exporting their waste predominantly to the Global South.¹³

For years the call for plastic waste exports was answered by China, which was the primary destination for plastic waste trade importing 170 million tonnes between 1992 and 2016.¹⁴ China and Hong Kong, which acted as an entry port to China, imported about 72 per cent of the

world's plastic waste, including 85 per cent of the EU's and 70 per cent of the US' collected plastic.¹⁵

However, the environmental and public health impacts of processing plastic waste, including contaminated and low-quality plastic, became too significant to ignore. These issues were brought to public attention in China and across the globe through the viral documentary film, *Plastic China*, which showed that despite its willingness to accept plastic waste, China was indeed facing significant challenges in properly managing it.¹⁶ As much as 70.6 per cent of the plastic was buried or mismanaged.¹⁷ China responded by implementing the National Sword policy in 2017, effectively banning plastic waste imports.¹⁸

This unilateral policy shift reverberated throughout the global waste management system, forcing countries which had previously relied heavily on exporting their plastic waste to China to seek alternative solutions. Many turned to countries in the Global South, where thousands of former Chinese waste importers reportedly set up new operations to import plastic.¹⁹ The resulting



influx of plastic waste shipments to these countries led to a game of 'whack-a-mole' – increased legal and illegal imports, mismanaged waste, tightening of domestic policy, rerouting trade to other vulnerable nations. This is demonstrated by responses from Malaysia, Vietnam, Thailand, India and Indonesia, which imposed a series of restrictions, including bans on non-recyclable plastics, increased inspections, freezes on new import licenses, new taxes and fees and raids on illegal operations.²⁰

The international legal community also responded in part. First, Norway formally proposed amendments to the Basel Convention to bring plastic waste under the remit of the Convention's control mechanisms, creating nearly universal obligations.²¹ The Basel Convention aims to minimise the transboundary movement of hazardous and other wastes and regulate those wastes to ensure wastes are destined for environmentally sound management (ESM) when trade cannot be avoided.²² The amendments, now known as the Plastic Waste Amendments, were swiftly adopted and went into effect in 2021, bringing all plastic waste under Basel's control.²³ Trade that does not comply with the Basel Convention is deemed illegal traffic, a criminal offense.²⁴ Despite this initial international effort, the plastic waste trade remains fraught with illegal traffic and activities. Fraud, mislabelling and corruption are rampant, allowing unscrupulous actors to bypass regulations and perpetuate environmental crime mismanaging plastic waste.

Mismanagement of plastic waste occurs when waste is not properly handled, including improper disposal methods such as open dumping, unregulated landfills and burning, often due to inadequate collection, recycling and treatment facilities. This mismanagement leads to

significant quantities of air, land and marine pollution.²⁵ Both legal and illegal international waste trade contribute to such mismanagement as plastic waste often ends up in countries where it is at risk of improper treatment or displacing domestically generated waste.²⁶

Mismanaged waste pollution results in severe environmental harm, posing significant risks to humans and wildlife, and incurs substantial economic costs for healthcare systems, clean-up efforts and negatively impacts industries such as fisheries, farming and tourism.²⁷

Second, countries, through the United Nations Environment Programme (UNEP), adopted Resolution 5/14, which calls for the development of an international legally binding instrument to end plastic pollution, including in the marine environment (the Global Plastics Treaty).²⁸ The Treaty represents a critical opportunity to address plastic pollution at its source, a necessity as global production and use of plastics is set to reach 736 million tonnes by 2040, up 70 per cent from 435 Mt in 2020.²⁹ It offers the potential for ambitious measures that, inter alia, limit plastic overproduction, reduce toxicity, enhance product design for better circularity and introduce a comprehensive transparency framework to facilitate informed trade and ESM.³⁰ These measures could curb the excessive generation of plastic waste, make waste treatment more effective and reduce reliance on plastic waste trade. This report is released ahead of the fifth and last scheduled round of negotiations; however, some countries, including the UK and India, are calling for the exclusion of measures related to plastic waste trade in the Treaty.³¹

EIA's investigation demonstrates that illegal plastic waste trade persists and increased governance has not disrupted the low-risk/high-reward market, but rather has created a more sophisticated and organised crime. Corruption, lack of enforcement resources and economic incentives for both exporters and importers create a complex web of illegal activities particularly as the plastic waste trade market value is estimated to grow nine per cent in the next five years, reaching more than £42 billion.³²

Fraudulent practices in national EPR schemes further exacerbate the issue. Misdeclarations and non-compliance with existing governance is common. Waste shipments are often mislabelled to bypass regulations, with hazardous plastics mixed with less-scrutinised materials. The lack of traceability and widespread use of brokers and intermediaries complicates efforts to track illegal shipments. Despite well-intentioned efforts, the global plastic waste trade continues to pose significant environmental and health risks, highlighting the need for stronger international cooperation and enforcement to address this pressing issue.

Opposite page: Plastic waste bales, tightly packed for export, often conceal hazardous or non-recyclable materials. These bales, meant to be recyclable, can contain hidden contaminants like electronic waste or mixed plastics, evading proper oversight and getting dumped on the importing country to manage.

Above: Open roadside burning of plastic waste in India. Illegally imported plastic waste is often disposed of through open burning, a practice that poses serious health risks and releases harmful toxins that can contaminate the soil, water and food supplies.



Uncovering fraud in plastic producer recycling credit schemes

Some countries seek to tackle plastic waste recycling by implementing schemes that shift the responsibility for improving recycling rates onto the producers that generate the waste.

A common approach involves leveraging producer responsibility, market solutions and strategies aimed at incentivising increased collection and recycling. Participants earn credits based on the amount and type of plastic waste they recycle and these credits can be traded or sold in a market, allowing entities or actors to purchase them to comply with regulatory recycling requirements. The primary goal of such a scheme is to encourage higher rates of recycling by providing a tangible economic incentive for recyclers while integrating producer responsibility.

While on its face, solutions such as credits-based EPR or a tradable recycling credit market may seem like an attractive model to promote sustainable practices among producers and consumers of plastic waste that shifts the economic burden to the plastic producers, the reality is that credit schemes in recycling have also attracted fraudulent and illicit activities. Our investigation revealed issues such as overreporting recycling volumes, issuing counterfeit credits, double counting across jurisdictions and claiming credits for illegally exported and mismanaged waste.

To prevent fraud in such systems, it is crucial to establish transparent monitoring and traceability platforms, conduct regular third-party audits and impose strict penalties for non-compliance.

Further, international plastic waste trade is currently a significant part of these models. Notably, the countries with the highest reported recycling rates are also among the largest producers and thus exporters of plastic waste.³³ These nations often include exported plastic in their recycling statistics, which can distort the true effectiveness of their recycling efforts, particularly if they sell waste to intermediary traders, unsure of its final destination.

In this first of two reports, EIA's investigation took a closer look at the UK's packaging EPR system, which includes plastic producers purchasing Packaging Recovery Notes (PRN) / Packaging Export Recovery Notes (PERN) from recyclers to attain their mandated recycling targets.³⁴

Similarly, the investigation looks at India's plastic waste EPR system which allows producers, importers and brand owners to purchase credits or partnerships to meet their regulatory requirements. EIA's investigation into each of these systems revealed fraud is prevalent.

Above: Generated image of shipping containers overflowing with plastic waste. Plastic waste shipments often serve as a cover for hidden, non-recyclable materials, allowing illegal and hazardous waste to slip through international borders unnoticed, exacerbating pollution and evading regulations.

1: PRN fraud: How criminals are exploiting the UK's subsidised recycling system

Our investigation into the UK's recycling system has revealed alarming evidence that there is significant fraud, potentially amounting to £50 million annually. This fraud not only undermines the recycling industry's integrity but perpetuates waste colonialism by offshoring waste and increasing exports by stealing funds intended to improve recycling infrastructure.

Numerous UK PRN/PERN industry experts highlighted fraudulent schemes, and our data analysis reveals discrepancies which indicate the likelihood of widespread fraud.

In our undercover operations, one company openly agreed to engage in fraud, disguising old wheelie bin plastic as legitimate plastic packaging waste material, highlighting the pervasive nature of the issue.

The scale and growth of PRN fraud

The UK Environment Agency (EA) reported that plastic PRN and PERNs generated £306m in revenue in 2023.³⁵ However, several industry sources, including expert Phil Conran, a director of the consultancy 360 Environmental and former chairman of the Government's Advisory Committee on Packaging, estimate at least 10-15 per cent, or about £30-50 million, is likely fraudulent.

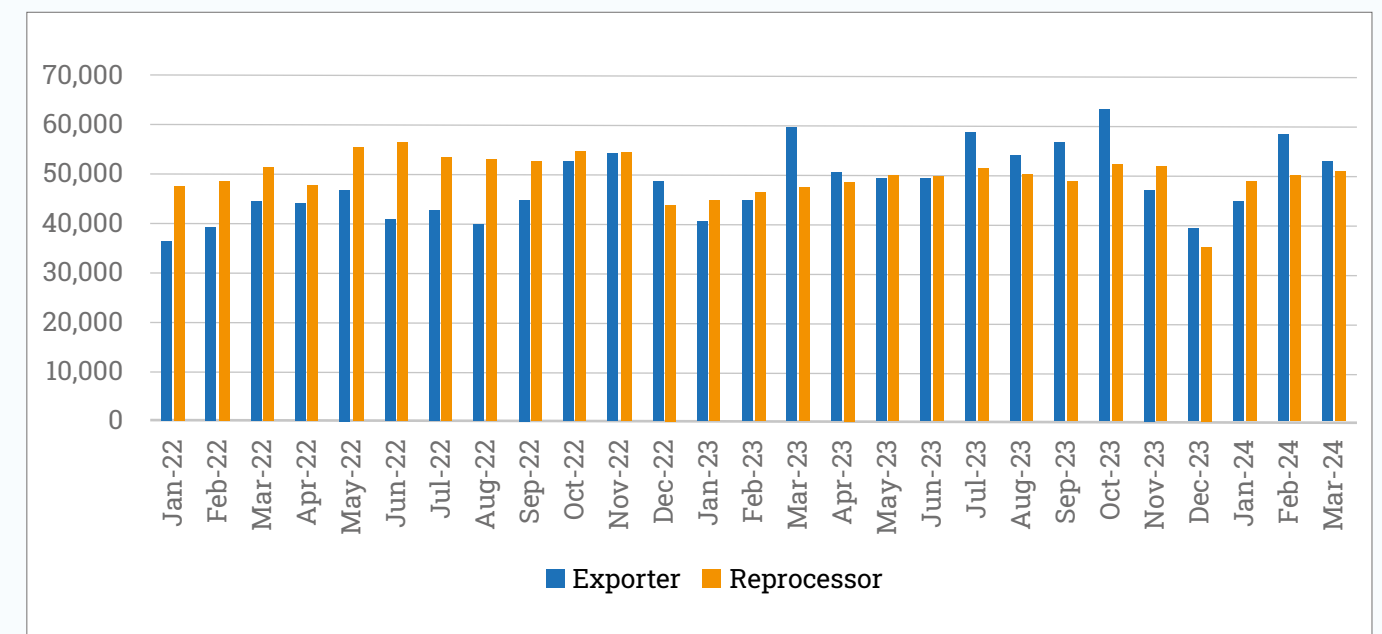
The opaque nature of the recycling system makes it difficult to pinpoint exact figures, but the discrepancy between reported plastic recycling rates and actual recycling suggests widespread malpractice.

A 2018 report by the UK's National Audit Office (NAO) criticised the EA for its poor understanding of fraud within the waste export system, which has undermined effective regulation.³⁶ Although EA acknowledged its regulatory weaknesses and initiated consultations to reform the system, the Department for Environment, Food and Rural Affairs (DEFRA) opted to retain the current system and review it later.³⁷

Meanwhile, there is general consensus among industry insiders that fraud has significantly surged over the past four years, particularly in 2023, signalling that the Government's response is lagging behind the escalating problem.³⁸ Further, the EA has confirmed a notable rise in the scale and complexity of fraud in the waste export industry over the past three years, with criminals falsely claiming to have exported packaging waste that either never existed, was not sourced from the UK or had already been the subject of a claim.

The PRN/PERN system has always been susceptible to subtle forms of exploitation that inflate the UK's packaging recycling performance. These 'low-level' abuses involve actions such as overstating the amount of waste collected for recycling or inaccurately reporting the source and status of packaging waste. Yet a surprising increase in PRN/PERNs claimed last year, despite a challenging economic climate, suggests that fraud is on the rise (fig 1). Conran highlighted this anomaly: "In the second half of the year, when the broad[er] sales market for plastics was depressed, demand for recycled plastic was depressed, and yet we saw these fantastic quarterly figures for the amount of plastic packaging being recycled."

Figure 1 (Source: NPWD ³⁹): Monthly plastic packaging waste exported and accepted for reprocessing (tonnes)



Data from 2023 also revealed an unexpected spike in plastic waste exports during the third quarter of the year, defying market expectations (fig 2). Industry insiders reported a noticeable decline in the volume of material they were processing, aligning with reduced consumption and waste generation due to the cost-of-living crisis. Lower oil prices also made virgin plastic more economically appealing than recycle, which is thought to have caused the shutdown of plastic recycling plants across Europe and globally.⁴⁰

Yet PRN and PERN claims increased, supposedly indicating higher recycling levels in the UK and overseas, despite the mandated 61 per cent recycling rate for 2022 only achieving 51 per cent in practice.⁴¹

"If we were in a booming economy and we were buying loads of stuff, that would make loads of sense, but reprocessors just don't think that's the case when they see their material coming through their yards and facilities," said one source.

Historical data further shows a discrepancy between the amount of plastic packaging reported as placed on the market by obligated companies and the amount of recycling being recorded. While the amount of plastic entering the market has been declining since 2021,

reported recycling rates have inexplicably risen (fig 3), signalling likely fraud.⁴³ Although full data for 2023 is not available at the time of writing, it is expected to reveal discrepancies between the volume of plastic placed on the market and the amount claimed to have been recycled, potentially signalling fraud.

Another fraud indicator is the gap between UK customs data and the National Packaging Waste Database (NPWD). In 2023, 567,593 tonnes of UK plastic waste exported under HS Code 3915ⁱ were recorded by customs, but PRNs were claimed on 611,168 tonnes of plastic waste, leaving 43,575 tonnes, or £12 millionⁱⁱ – roughly the same as 3,000 fully loaded double-decker buses – unaccounted for. While it is unclear how much of this discrepancy is due to fictitious claims, experts such as Angus Macpherson, Managing Director of the PRN marketplace where 15-20 per cent of all PRNs in the UK are traded, believe that at least part of this discrepancy is due to fictitious claims.⁴⁴

ⁱ HS Code 3915 refers to waste, parings, and scrap of plastics, including those used in the manufacture of new plastic products. It is part of the Harmonised System used globally for classifying goods in international trade. Dirty Deals Report 2 further explores the relationship of HS Codes in international plastic waste trade.

ⁱⁱ This calculation uses the 2023 market average of £276, per Plastic PRN prices. [Available here](#).

Figure 2 (Source: NPWD⁴²): UK plastic exports (tonnes) showing spike in Q3

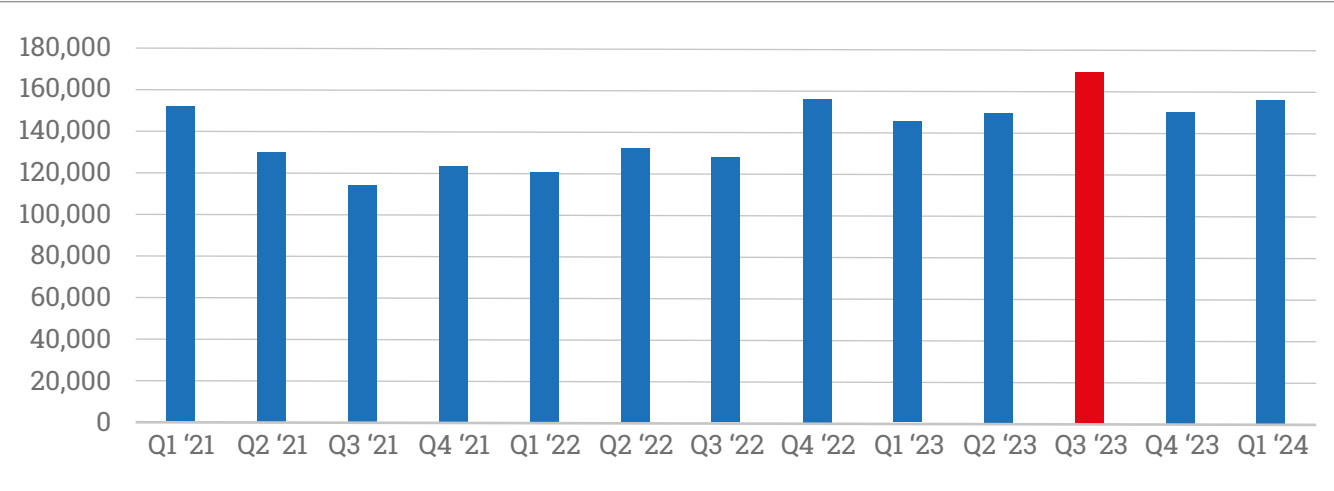
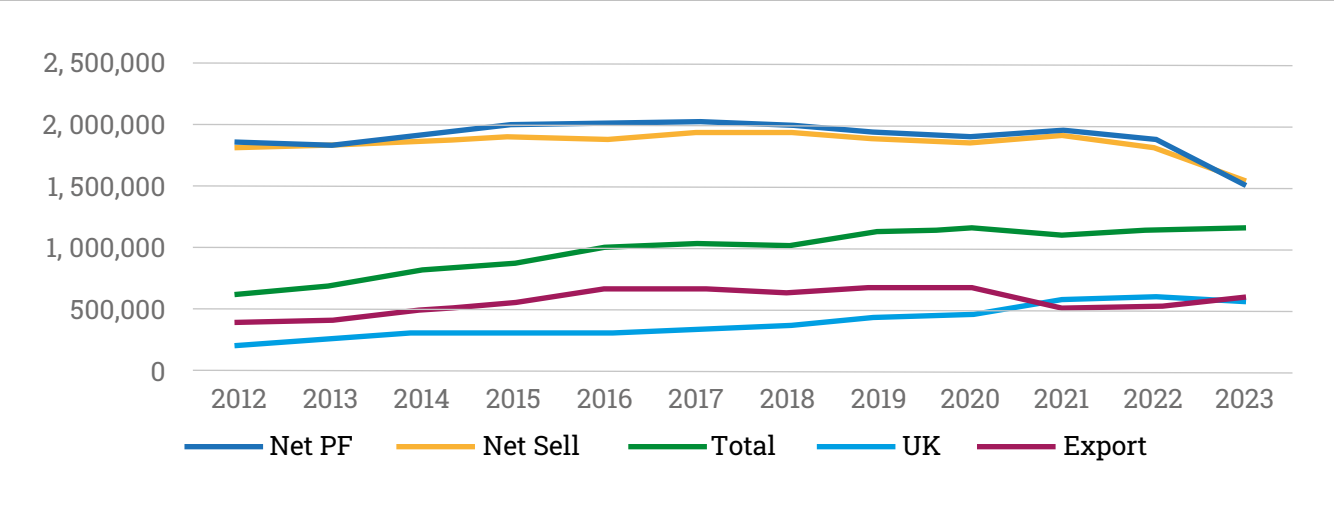


Figure 3: Placed on market vs recycling (tonnes)



Increased sophistication in old-school business practices

EIA sources are increasingly concerned that the PRN/PERN system has become a target for organised crime. Unlike in the past, where fraud was limited to individual organisations, evidence suggests that operators are collaborating to create a more sophisticated and challenging network.

Phil Conran noted: "With the sustained rise in PRN prices, it is considered that PRN fraud has become more organised between operators within the UK and between operators and overseas destinations."

Paul Sanderson, Chief Executive of the Recycling Association, echoed these concerns, highlighting "strong rumours" of organised crime involvement and multiple avenues available to launder money through the PRN system.

The infiltration of organised crime into the PRN/PERN system mirrors broader warnings from INTERPOL and global law enforcement about the increasing sophistication of environmental crime networks.⁴⁶ Environmental crime is the fourth largest criminal activity globally, with dated valuations between \$91-258 billion.⁴⁷ This scale highlights the growing profitability of exploiting environmental regulations, including waste management systems, which criminal enterprises target due to weak enforcement and regulatory gaps.

These concerns emphasise the urgent need for stronger regulations and better enforcement to combat the exploitation of waste management systems by criminal enterprises. The PRN industry's 'old-fashioned' practices, as described by Sanderson, further exacerbate the problem; Sanderson notes that deals "done on a handshake" create ample room for fraud.

When asked what obstacles law enforcement faces, EA said: "monitoring compliance in respect of any waste

shipment is dependent on there being an established and reliable communication with the Competent Authority in the country of destination." Yet brokers and middlemen involved in plastic waste exports only need to register as waste brokers or dealers, a system long criticised for its lack of stringent background checks and for enabling misclassification of waste.⁴⁸

In response to these vulnerabilities, the UK announced reforms to bring the waste carrier, broker and dealer registration system under the environmental permitting regime, with legislation expected later this year.⁴⁹ Additionally, DEFRA plans to introduce a mandatory digital waste tracking service by 2025 to reduce waste crime and improve regulatory compliance. While these measures are promising, the success of digital tracking depends on the integrity of the entire data chain.

The UK has also explored introducing permits for waste exporters, including time limits and technical competence requirements, but these measures have not been implemented.⁵⁰ DEFRA is still exploring alternative reform options, aiming to close loopholes in waste shipment legislation and ensure waste exporters are held accountable for the fate of exported waste.⁵¹

Expert Angus Macpherson emphasises that more needs to be done to enforce technical competence: "You can get someone who is running an organisation that has been cancelled for some reason and they will suddenly appear in a new organisation that is accredited. There could be a range of reasons they were cancelled, but it does feel as though possibly something is not being applied properly."

Without rigorous enforcement and stricter regulatory measures, the potential for fraud and exploitation in the system will continue to undermine environmental integrity and industry accountability.

Above: Generated image of 3,000 double decker busses full of plastic waste – the amount of plastic unaccounted for in the UK EPR scheme.⁴⁵

How to get away with PRN/PERN fraud

EIA’s investigation identified 13 methods in which PRNs and PERNs can be claimed fraudulently. These methods broadly fall into three categories:

1. Document and data entry fraud: *Fraudulent manipulation of records and tonnage in the NPWD, through doctored photos, falsified sampling sheets and Annex VIIs, non-packaging weighbridge tickets, fictitious or duplicated vehicle/container numbers. Also, claiming PRNs on material legally exported to an interim location that never reaches its final destination.*

According to industry sources, another common scam is a form of carousel fraud. A source with insider knowledge told us how one prominent UK company imports plastic waste, stores it, sells it to exporters and then claims PRNs as if it were UK waste. A second source said: “I’ve heard stories of people in the Netherlands looking at UK material and it’s got German packaging in it, which suggests material is coming in from Germany cheaply; it’s being blended with UK material, it’s being exported and PRNs are being claimed”.

One company director told our undercover investigator that a UK-based waste management company had its reprocessing accreditation revoked by the EA earlier this year. According to the source, the UK company was importing material from Spain, blending it with UK material and exporting it to the Netherlands while claiming a full PRN, despite only part of it being from the UK. The source explained EA “went through all [the company’s]” to find the discrepancies that showed fraud.

2. Fictitious tonnage: *Duplication of actual packaging loads through multiple accredited operators or import and export carousels, or creation of false Waste Transfer Notes or weighbridge tickets for tonnage that does not exist.*

One industry source told us it was “common knowledge” that some companies were “paying vehicle drivers to come on to the weighbridge a second time”. They further explained: “They come onto the weighbridge as you’d expect, give them a few quid, tell them to drive around the corner and come back and log it as a different load and log them both for PRNs”.

3. Illegal shipments: *Containers filled with poor-quality waste material or other waste material disguised as legitimate recyclable waste material to claim PRNs or PERNs.*

PRN fraud is intrinsically linked to illegal plastic waste shipments. The current scam which one source claims “everyone is talking about” involves claiming PRNs on containers that are only half full of legitimate plastic packaging, with non-packaging material hidden at the back of the container. This type of misdeclaration

has long been a common illegal practice in the plastic waste trade, used to conceal problematic waste among more easily recyclable materials. Now, it’s also being exploited for financial gain through the PRN system.

A source described how sales of PET bottles to Italy and Spain have surged this year: “They stopped buying this time last year, then all of a sudden there was a massive demand from manufacturers they had depleted their stocks and needed it quickly.”

The source continues: “There has been a lot – and I mean a lot – of PET being shipped into Italy.” Companies tend to fill half the trailer with PET bottles, which they can easily claim PRNs on, but then load the back half with PET reels, which are ineligible for PRNs: “There’s been a lot of that going on.”

Rolling out a new scam: a closer look at wheelie bin fraud

In 1968 in the UK, factory owner Frank Rotherham Moulding invented the modern plastic wheelie bin – not for collecting household waste, but to move waste across his factory.⁵² Since then, plastic wheelie bins have become a staple in UK waste management, evolving in both design and use. Unfortunately, their evolution has led to new forms of exploitation, with a recent scam involving the fraudulent use of PRNs on wheelie bin regrind.

Our industry sources have highlighted this scam. One explained that, due to budget cuts this year, many councils in the UK haven’t issued new bins. This has left an excess of old worn-out wheelie bins. Companies are still collecting and grinding them down, but there is little demand for the regrind in the UK. Instead, it’s being exported to Germany and mostly to Türkiye. In the process, companies are ‘losing the paperwork’ and falsely labelling the material as HDPE packaging regrind, allowing them to claim PRNs on it. A second industry source summed it up well: “It’s a big scam”.

After we discovered LinkedIn advertisements indicating that UK company National Polymers Ltd buys and sells various plastics, including wheelie bin regrind, we decided to investigate further.

Speaking with National Polymers director and owner Cayne Andrew, we were offered between 300-500 tonnes of wheelie bin regrind for us to buy at £580 a tonne. When we inquired about claiming a PRN on the material, Andrew replied positively. He proposed moving the wheelie bin material from its original waste site to a facility in Coventry, from which he sourced crates qualifying for PRN, and claimed that this facility would provide photos of crates to create false evidence that our wheelie bins were actually crates, enabling us to claim a PRN.

Right (opposite page): The wheelie bin fraud scheme falsifies recycling data and defrauds the recycling system. By misreporting the contents of wheelie bins as packaging materials, fraudsters are able to profit from non-existent recycling efforts, costing the industry millions and contributing to environmental harm

Extract of call between an EIA undercover investigator and Cayne Andrew (pictured below)

Investigator: “It’s a bit cheeky but I’m trying to find some way I can claim a PRN on [wheelie bin regrind], so I’m after someone who can do that for me.”

Andrew: “We could. I’ve got somewhere we can move it to in Coventry and we can just class it as crate.”

Investigator: “That would be really good for me.”

Andrew: “We’d have crate, so at least there’s always sourced photos of crate, so that would work. If we move it to Coventry, then we can class it as crate and then you can claim the PRNs on that.”



We asked Cayne Andrew why he was prepared to help commit PRN fraud. His response contradicted the content of the telephone voice recording. He told EIA that he was ‘pestered’ by our undercover investigator and said it was something neither he, nor anyone else in his company, would ever be involved in and had told our undercover investigator so.

Corporate records show that National Polymers was only incorporated on 24 February 2023. Andrew has previously been involved in two other short-lived waste brokerage companies. His LinkedIn profile indicates he worked as head of operations at National Recycling Ltd for a year before launching National Polymers. National Recycling Ltd, registered in Oldham and owned by Andrew’s wife, was liquidated in August 2023, just two years after it was established. Prior to that, Andrew was the sole owner and director of Envirocon Ltd, a waste broker in Carlisle, which was liquidated in December 2022.

Our undercover investigator spoke with several other companies to explore purchasing wheelie bin regrind that could be illegally claimed as a PRN or by passing off imported material as UK waste. One company director warned us that the risks on claiming PRNs on wheelie bin were too high, noting that while it had been “slack” before, the EA is now investigating the industry more. He said: “You can’t claim [PRN] on wheelie bin. The EA will jump straight down your throat. They’ll shut you down because you’ve got to show in your paper trail for the PRN, who you sold it to and who you bought it from. The paper trail will show you’ve brought wheelie bins from such and such and if you’ve claimed the PRN on them, you’ll be shot. [The EA] was slack before, but people have abused it. So the PRN is only at 150/140 at the moment. [PRN prices] are keeping at rock bottom while they investigate everybody.”



Our undercover investigator also attempted to buy wheelie bin regrind from another source: Pasha Recycling. According to data obtained through our Freedom of Information (FOI) request, Pasha Recycling lost its exporter accreditation in 2020 for breaching several conditions, including “issuing PERNs on non-target material and non-packaging waste.” A representative responded to an email saying, “Pasha Recycling has not engaged in any fraudulent practices.”

When our undercover contacted Pasha, its Commercial Director responded: “I think it’s very risky to claim a PRN on wheelie bin regrind. We already have heat from the EA on our own PRN accreditation.”

The following day, Pasha’s Commercial Director sent an email stressing: “Claiming PRNs on [non-] UK packaging is illegal and not something Pasha Recycling would ever be involved in. I strongly advise you not to involve yourself in this kind of illegal activity and be very careful with anybody encouraging to do so, as this could land you in a lot of trouble!”

Beyond the risk of fraud, a more critical reason to avoid passing off wheelie bins as packaging regrind is the danger posed to human health. Wheelie bins are not designed to meet the rigorous safety and quality standards required for packaging materials, particularly those used for food. Packaging regrind must be free from contaminants and harmful chemicals that could leach into products. Old wheelie bins, having been exposed to various types of waste and outdoor elements, are likely to be contaminated with substances that could make them unsafe for consumer use.

Additionally, if the bins are made from recycled materials, they may contain different types of plastics or impurities, leading to cross-contamination. This is especially concerning when non-food grade High-Density Polyethylene is used in products that come into direct contact with food or water.

The need for stronger controls

Although our undercover investigators were met with some hesitancy because the EA has been looking more closely at PRN fraud, there is broad consensus among legitimate industry that stronger regulations, better data tracking and increased enforcement are urgently needed. The introduction of a mandatory digital waste tracking service in 2025 is a step in the right direction, but experts warn that it will only be effective if the data entered is accurate and if the system is rigorously enforced.

The PRN system has also been criticised for creating “warped incentives” that prioritise exporting waste by weight rather than reprocessing it domestically, which remains uneconomical.⁵³ This dynamic has led to a system that is “both corrupt and corrupting,” allowing large exporters to evade scrutiny and prosecution because they are seen as too vital for meeting the UK’s

packaging recycling targets. Some industry insiders suggest that the Government might be reluctant to prosecute large offenders, fearing it could hinder progress toward those targets: “If the EA actually cracked down on these guys, we’re never going to meet our UK targets for recycling.”

Opinions on the effectiveness of the EA’s policing of the PRN system are divided. Some industry sources argue that the EA lacks the necessary expertise, relying too heavily on police and staff without industry knowledge, which hampers their ability to tackle PRN fraud effectively. Others, such as Angus Macpherson, believe that the creation of the Joint Unit for Waste Crime has brought valuable new skills to the agency, improving its investigative capabilities.

However, recent funding cuts to the EA have weakened its ability to fulfil its duties effectively, with its resources stretched thin across numerous responsibilities, including waste management enforcement.⁵⁴ Concerns remain that the EA’s capacity and thus enforcement, particularly in inspecting exports, are insufficient, allowing poor-quality waste to slip through.

Other concerns may sit outside of EA’s control, for example, the glaring loophole whereby a waste reprocessor company can be prosecuted for illegal activities but still retain its export accreditation. Roydon Resource Recovery Ltd, a Manchester-headquartered company, plead guilty to and was fined more than £870,000 in April 2024 for illegal waste exports to Poland in 2018, yet the company is still operational.⁵⁵ The fine included fees under the Proceeds of Crime Act related to erroneously issuing PERNs. The EA revealed to EIA that Roydon’s fees were calculated with consideration that the business was claiming PERNs for a large amount of exports to the site in Poland over three years where the material was actually used to manufacture refuse-derived fuel for incineration.

While producer responsibility mandated recycling targets through the use of the PRN/PERN system has succeeded in increasing plastic packaging recycling, experts agree that reforms are needed to keep pace with the evolving economy. Two industry sources highlighted that Northern Ireland is a hub for fraudulent activity in the UK’s plastic waste exports. Export data reveals that, in 2023, exporters accredited in Northern Ireland were responsible for a disproportionately high amount of the UK’s plastic packaging waste exports – 39 per cent of the national total and 48.5 per cent of the exports to Türkiye. According to the sources, a significant portion of the waste material exported by Northern Irish exporters is rumoured to originate from the Republic of Ireland.

These sources also reveal that fraudulent companies have become very sophisticated in appearing legitimate to EA audits. To combat this, there must not only be stricter penalties, such as cancelling export accreditations for companies involved in fraud,

but also improving coordination among regulators, particularly at critical points such as the Northern Ireland border. Enhancing resources and better inspection at ports is vital to closing loopholes and preventing fraud more effectively.

Ultimately, these reforms are necessary to address the transboundary harm caused by waste exports and to combat the broader issue of waste colonialism. While the UK’s PRN system has become a target for organised crime, exploiting loopholes in recycling credits, India faces similar challenges with its EPR framework. Both systems, although designed to promote recycling and responsible waste management, have been undermined by fraudulent practices, weak enforcement and regulatory gaps.

These issues highlight a troubling trend in global waste management strategies, where well-intentioned schemes are manipulated, perpetuating the cycle of environmental harm and injustice.

Below: At Felixstowe Port, the Environment Agency conducts an inspection of a container of plastic waste claiming a PERN. Most checks rely on visual assessment to identify misdeclared or contaminated materials within the waste stream.



Conclusion

The scale and sophistication of fraud within the UK’s PRN/PERN system have reached critical levels, significantly undermining the credibility and effectiveness of the UK’s recycling efforts.

The widespread manipulation of data, fraudulent practices and the infiltration of organised crime into waste management reveal systemic weaknesses that must be urgently addressed. This fraud not only jeopardises the legitimate recycling industry but also perpetuates waste colonialism by shifting the burden of plastic waste to vulnerable communities abroad, where waste is often mismanaged.

Despite recent regulatory responses, gaps in enforcement and oversight continue to provide opportunities for exploitation. Without comprehensive reforms – including stricter regulatory measures, robust data tracking and effective cross-border cooperation – the integrity of the waste management system will remain compromised, further exacerbating environmental harm and social injustice.

Addressing these challenges is essential to creating a resilient and transparent recycling system that genuinely supports sustainable waste management goals.



2: India's EPR challenge with systemic flaws and fraud

India generates approximately 3.5-4 million tonnes of plastic waste annually and introduced EPR as part of its 2011 Plastic Waste Management Rules (PWM).⁵⁶ These Rules were further elaborated upon in 2016 and have been revised several times thereafter to require producers, importers and brand owners (PIBOs) to manage the collection, segregation, transportation and processing of post-consumer plastic waste.⁵⁷

Despite India's reported plastic recycling rate of 60 per cent, largely due to an extensive informal recycling sector, a significant portion of plastic waste remains uncollected or improperly managed, making India one of the top global contributors of mismanaged plastic waste into the environment.⁵⁸

India's EPR for plastic, akin to the UK's PRN/PERN system, allows companies to meet their regulatory obligations by purchasing or trading credits from accredited plastic recyclers instead of directly handling plastic waste. This approach, while intended to create incentives for proper waste management, has faced considerable challenges, notably systemic fraud, inadequate enforcement, and non-compliance. The Comptroller and Auditor General (CAG) of India has highlighted critical gaps in data collection, inconsistencies between states and a lack of validation, which collectively hinder effective decision-making and enforcement under EPR.⁵⁹ Without reliable data, authorities struggle to accurately assess plastic waste generation, undermining the foundation of effective waste management planning.

Further, India's informal recycling sector plays a critical role in the recycling process, handling a large portion of the plastic waste that does get recycled.⁶⁰ However, the sector struggles with limited regulatory

support, poor working conditions and inadequate access to financial resources, which inhibits its capacity to contribute effectively to formal EPR obligations.⁶¹

Continued imports and rising concerns

Following China's National Sword Policy, India took decisive action to ban plastic waste imports in 2019, aiming to strengthen domestic plastic waste management and reduce packaging pollution.⁶² Initially, this resulted in a sharp decline in imports; however, by 2022, trade data showed a resurgence, driven by industry pressures citing a shortage of recyclable material.⁶³ This led the Government to partially relax the ban, allowing the import of PET bottles for reprocessing.⁶⁴

The 2022 amendments to the PWM introduced exemptions for export-oriented units and those in special economic zones, raising concerns about reopening the floodgates to plastic waste imports rather than allowing the market to drive better investment in domestic recycling infrastructure.⁶⁵

Importing waste for reprocessing can undermine local waste management systems by displacing local waste, leading to higher mismanagement and localised harm. The CAG reports have indicated that, despite regulatory updates, there has been little improvement in the capacity or coordination of India's plastic waste management system, with the CPCB, state-level authorities and local bodies failing to align their efforts effectively.⁶⁶ This lack of collaboration makes it challenging to integrate imported waste into existing systems without increasing environmental harm and the risk of unprocessed waste being dumped.

PROJECT SUMMARY	
ID	4054
State/Province	Rajasthan
PWRP	
Proponent	BLS Ecotech Ltd.
	Rajasthan, India
	nimit@ecox.market
PWRP Project Status	
Under Validation and Verification (public comment period closed)	
Average Amount of Plastic Waste Collected/Recycled	
102394	
PWRP Project Type	
Plastic Waste Recycling	
PWRP Methodology	
Plastic Waste Mechanical Recycling Methodology	
PWRP Project Validator	
Lloyd's Register Quality Assurance Ltd (LRQA)	

In 2023, India reported the import of 64,312 tonnes of plastic waste under HS code 3915, predominantly from countries in the Global North, including the US (50,405 tonnes), Japan (11,149 tonnes), the EU (3,896 tonnes) and the UK (806 tonnes).^{iii, 67} Additionally, India also imports large volumes of plastic recycle and other secondary plastic products, such as unused stocks of plastic film or LDPE lumps.^{iv}

EIA's review of data from the Human Environment and Transport Inspectorate (ILT) of the Netherlands suggests that these shipments often include misdeclared items to bypass import restrictions, creating a smokescreen for the illegal import of problematic waste (see *Dirty Deals - Part Two* for more). A 2022 instance involved a Dutch company attempting to ship plastic film rolls, misdeclared as 'plastic packaging,' to India via a United Arab Emirates (UAE) intermediary, which upon inspection was identified as waste material rather than reusable goods. This incident reflects broader systemic issues in monitoring transboundary movement of plastic waste ensuring imports are what they purport to be, with the EA also intercepting a handful of unlawful exports to India.

The challenge of imported plastic waste is compounded by systemic flaws in India's EPR system, particularly through the use of plastic credits. Private initiatives such as Verra's plastic credit scheme have attempted to provide market-based solutions, but even proponents of the system acknowledge its limitations, including funding gaps, unclear regulations and significant information asymmetries.⁶⁸ Of the 26 Indian projects listed under Verra's Plastic Waste Production Program, only one has received conditional approval and BLS Ecotech Ltd., a company featured in the *Dirty Deals - Part Two* report, is undergoing verification and validation to become part registered.⁶⁹

The CAG report emphasised that regulatory gaps in the issuance and monitoring of recycling certificates and credits have led to fraudulent practices, enabling companies to fulfil their EPR obligations superficially, without actually contributing to effective plastic waste management.⁷⁰

The interplay between plastic credits, EPR and the relaxed restrictions on importing cheap plastic waste creates a system in which companies can meet regulatory targets without making meaningful changes to reduce their plastic waste footprint or improve recyclability.

The system allows companies to shop for plastic credits to meet their EPR obligations, rather than reducing the amount of plastic waste they produce or improving the recyclability of their products. This reframes the objective to acquiring easy-to-recycle imported plastic waste rather than addressing the challenges of domestic waste management.

The systemic flaws highlighted by CAG, coupled with documented cases of fraud and non-compliance, underscore the pressing need for robust reforms in both policy enforcement and regulatory coordination to ensure that India's plastic management system is not undermined by loopholes and weak oversight.

Opposite page: Waste pickers in a landfill site in India. 79% of plastic waste accumulates in landfills or the environment. Landfilling consumes valuable land and also releases harmful chemicals, microplastics and toxins into the environment as plastics degrade.

Above: Trade data connecting German and American plastic waste exports containing the same Indian EPR Number.

iii: Discrepancies in tonnage are due to country self-reporting to UN ComTrade. India has lower imports for Japan and the UK, than those countries have claimed exports to India.

iv: Plastic waste is tracked under HS code 3915, while film has been shipped under HS code 3920 or 3921 and LDPE lumps under HS code 3901. *Dirty Deals Report 2* explores misdeclaration and HS Codes further.

Non-compliance and fraud

The CPCB has identified widespread non-compliance within India’s EPR system. In 2021, the CPCB filed a complaint against 71 respondents for failing to comply with EPR regulations, citing a lack of commitment among regional regulators in tackling plastic pollution.⁷¹

The CAG audit further underscored this lack of seriousness, noting that inconsistencies in data submission and a lack of coordination among regulatory bodies severely hamper the enforcement of EPR rules.⁷² This systemic negligence has left India without an accurate understanding of the actual plastic waste generated and managed, impeding any effective response.

Industry sources informed us that recycling companies routinely fail to respond to requests from the CPCB for clarifications about their EPR applications and that many smaller- and medium-size entities have failed to register on the EPR portal. Research findings highlight the opacity surrounding the CPCB portal, which is password-protected, limiting public accountability regarding EPR targets and compliance. This restricted access fosters an environment of non-compliance and undermines the transparency needed for effective EPR enforcement.

The same year, the CPCB imposed fines on four major beverage companies – Coca-Cola, PepsiCo, Bisleri and Nourischo – for failing to meet their EPR obligations.⁷³ Coca-Cola was fined for recycling only 23,442 tonnes


of plastic against a target of more than 100,000 tonnes.⁷⁴ Bisleri also failed to provide documentation for the 21,500 tonnes of plastic it had committed to collect.⁷⁵ The CAG audit noted that fines often do not act as deterrents, with the lengthy legal processes frequently allowing companies to avoid penalties. This inefficiency in enforcement was observed in earlier assessments, where actions taken by CPCB and state-level bodies failed to yield meaningful outcomes.⁷⁶

In 2023, a CPCB audit revealed significant fraud involving more than 600,000 fake plastic recycling certificates.⁷⁷ Four companies – Enviro Recycle Pvt Ltd, Technova Recycling India, Asha Recycle Pvt Ltd and Shakti Plastics Industries – were found to have issued certificates without processing any waste.



Notably, these companies are linked to the Podaar Group, a network under Rahul Podaar, who publicly promotes himself as an “Advocate for Sustainability & Circular Economy.”⁷⁸ The CAG’s findings echoed these frauds, pointing to the ease with which companies exploit loopholes in the system, facilitated by a lack of supervision over certificate issuance.


Random sampling of 2,348 recycling facilities suggested that the scale of fraud could be significantly larger, as many other facilities are likely involved in similar malpractices.⁷⁹


Below: Rahul Podaar, head of the Podaar Group, implicated in a large-scale plastic waste recycling fraud involving the issuance of over 600,000 fake EPR certificates. Despite promoting himself as an advocate for sustainability, Podaar’s network of companies has been linked to systemic non-compliance and exploitation of loopholes within India’s EPR framework.



One of the Largest Waste Management Companies & Recyclers of Plastic Waste in India



**The Shakti Plastic Industries**

**Mithibai College**

Rahul V Podaar

Managing Director | Angel Investor | Advocate for Sustainability & Circular Economy

Mumbai, Maharashtra, India · [Contact info](#)

[visit website](#)

23,988 followers · 500+ connections

+ Follow

Message

More

HS Code	39201099
Goods Described	STOCK LOT OF PLASTIC FILM ROLLS PRINTED/UNPRINTED IN MIX SIZE,WIDTH AND THICKNESS (EPR NO.1129921 DT.17-05-2022)

For example, Enviro Recycle Pvt Ltd issued EPR certificates for 350,000 tonnes of plastic without actually processing any waste and even before the plant became operational. Regulatory oversight also failed at the state level, with officials from the Karnataka State Pollution Control Board (KSPCB) granting the factory consent to operate just seven days after granting set-up consent, despite the plant lacking basic utilities such as electricity and water. This points to systemic collusion, as observed by CAG, where enforcement bodies themselves contribute to regulatory failures. The fabricated photos and videos attached to the facility’s EPR application led to an inquiry and the suspension of two KSPCB employees, but the broader implications of regulatory complicity remain unaddressed.

Moreover, our investigation found that three companies linked to the Podaar Group – charged with fraudulent EPR practices – had imported plastic waste and film rolls from Europe and the US, suggesting an attempt to use imported materials to fabricate EPR compliance. Enviro Recycle imported plastic film rolls from Germany and the US in September 2022 and August 2022, respectively, which both referenced the same specific EPR certificate number in their bills of lading (see image at top of page).

Technova Recycling India, another company implicated in the fraud, imported 55 shipments since 2020, with 32 of these routed through intermediaries in the UAE, including Ecogreen Recycling, a subsidiary of Shakti Plastics. The use of intermediaries to obscure the origin and nature of plastic shipments reflects deeper challenges in tracking plastic waste movements, as well as gaps in transboundary regulation.

These findings reveal systemic corruption and non-compliance within the EPR framework, underscoring the urgent need for increased transparency, stricter penalties and enhanced monitoring mechanisms. The CAG’s audit called for comprehensive reforms to ensure that all stakeholders, including producers, recyclers, and regulatory bodies, work in coordination.

Strengthening the accountability of both the CPCB and state-level authorities, coupled with public access to data, is crucial for addressing these issues and restoring the credibility of India’s EPR system.

Right (top and bottom): Dogs, cows and other free roaming animals consume plastic waste in India. These images highlight the severe environmental and social challenges of plastic waste mismanagement, where vulnerable communities and animals face the hazardous consequences of widespread pollution.



Challenges in enforcement

The enforcement challenges faced by the CPCB and state pollution boards mirror those experienced by other regulatory bodies like the EA in the UK. Sources informed EIA that the CPCB and state pollution boards are significantly understaffed, underresourced and lack the necessary expertise to effectively enforce EPR regulations, particularly when dealing with cases of fraud.

The findings from the CAG report reflect these concerns, highlighting the chronic underperformance of state and central pollution authorities in executing their duties and the lack of coordinated efforts needed to tackle plastic waste management effectively.

A stark example of the weak enforcement infrastructure came in July 2024 when the CPCB's EPR portal was hacked, resulting in the theft of certificates worth 10,244 tonnes of credits.⁸⁰ The vulnerability of critical data management infrastructure highlights the systemic lack of preparedness and insufficient investment in technology that is essential for the credible implementation of EPR policies. Our research found this lack of digital security and transparency only adds to the challenges faced by regulators in enforcing compliance.

Sources indicated that the CPCB "is not adequately equipped to assess recycling capacity" and "lacks a method to conclusively determine the disparity" between the amount of plastic companies claim to recycle versus their actual capacity. Without robust verification measures or the technological ability to monitor recycling claims, the CPCB is unable to ensure that companies meet their EPR targets. This has allowed widespread fraud, where companies continue to claim credits or recycling certificates without genuine plastic waste management efforts.

Even when fraud or non-compliance is identified, enforcement actions often fail to provide effective deterrence. While the CPCB has imposed fines and issued show-cause notices to non-compliant companies, these penalties rarely lead to substantive consequences due to protracted legal proceedings and weak follow-through. Fines against major beverage companies outlined in the previous section were often unrecovered, negating the regulatory action taken.⁸¹ Such inefficiencies create an environment where violations can continue unabated, reducing the credibility and deterrence value of any regulatory action.

One illustrative example is Shakti Plastics – a company initially fined by the CPCB – which eventually avoided meaningful consequences. Similarly, at least one of Podaar's companies, despite being penalised for false EPR claims, continues its operations and has resumed importing plastic products from overseas. Since January 2024, Enviro



Recyclean has imported 17 shipments, primarily consisting of LLDPE lumps or regrind, predominantly from a single US company.⁸² The leniency and ineffective enforcement reflect systemic issues where non-compliant actors are not held accountable, ultimately undermining the entire EPR framework.

The CAG report has consistently emphasised that CPCB and state-level pollution control boards are ill-equipped to execute their mandated roles effectively due to structural weaknesses, resource constraints, and poor coordination. The findings from both the CAG and our research highlight the urgent need for increased investments in capacity-building, staffing and the digital infrastructure required to securely manage compliance data and monitor recycling activities. Furthermore, a lack of harmonisation in how data is collected and verified across different states means that regulatory efforts are inconsistent, often creating loopholes that companies can exploit.

The current state of enforcement reflects a vicious cycle – limited resources and capacity lead to weak regulation, which in turn encourages systemic fraud and abuse of the EPR framework. Without fundamental reforms to improve regulatory capacity and implement secure data management systems, India's ambitious plastic waste management objectives remain out of reach and the EPR system is rendered largely ineffective.



Conclusion

The case study of non-compliance and fraud in India's EPR system highlights significant flaws at multiple levels, from corporate evasion to regulatory shortcomings. It reveals how the misuse of recycling certificates, insufficient oversight and regulatory collusion undermine the objectives of plastic waste management. The involvement of major beverage companies and multiple recycling entities, coupled with regulatory failures, shows a lack of accountability in implementing the EPR framework.

One particularly concerning aspect revealed by EIA's investigation is the transboundary movement of plastics. Recyclable plastics collected or processed outside of India are imported and falsely passed off as recycled within the country to meet EPR targets. This practice not only undermines the credibility of the system but also shifts the burden of environmental responsibility rather than genuinely contributing to India's recycling capacity.

To address these shortcomings, urgent reforms are needed. Strengthening enforcement requires increased regulatory capacity, adequate staffing and a robust digital monitoring infrastructure capable of identifying discrepancies effectively. Stricter penalties must also be put in place to serve as a real deterrent against fraudulent practices. Without these

systemic changes, the goals of sustainable plastic management and a functioning circular economy remain unattainable, as regulatory gaps continue to be exploited.

EPR in India ultimately demonstrates that strong enforcement, accountability and transparency are essential to ensure that EPR serves its intended purpose of achieving sustainable plastic management and reducing environmental harm. Addressing these systemic weaknesses is crucial for India to transition towards a truly circular economy, where recycling and waste management are both effective and credible.

Furthermore, the EPR framework must recognise and support the role of the informal sector to enhance the overall effectiveness of plastic waste management.

Opposite page: At a recycling regrind facility, plastic waste is transformed into pellets for reuse in new products. However, without transparency in the recycling process, harmful toxins from contaminated plastics can end up in recycled materials, posing risks to both human health and the environment.

Above: A woman sorts through plastic waste to recycle. She is known as a 'waste picker' – a marginalised group that form part of informal waste management sector in India.



Recommendations and conclusions

The global plastic waste trade is plagued by widespread illegalities and loopholes, which are being exploited to the detriment of the environment, public health and vulnerable communities.

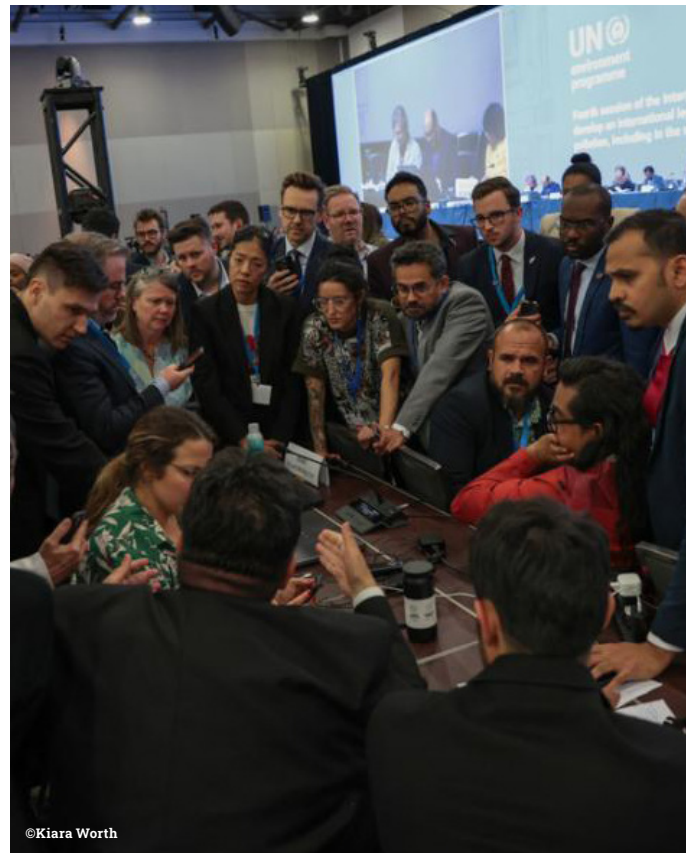
This investigation has used two case studies to expose the scale of the challenges posed by these practices, including the failures of current recycling credit systems, widespread corruption and the infiltration of organised crime into waste management. To combat these issues and ensure sustainable plastic waste management, we recommend the following:

1. Reduce virgin plastic production. Reducing plastic production must be a priority, as the expected growth in plastic waste generation will far exceed the capabilities of improved waste management systems. In the UK, a reduction in the production of single-use plastics, coupled with investment in safe and sustainable product design, is essential to mitigate the volume of waste being generated. In India, production must align with domestic recycling capabilities, with emphasis on capping production where necessary and avoiding over-reliance on imports of recyclate, which undermines local waste management..

2. Create global transparency across the lifecycle of all plastic materials and products. Transparent tracking and traceability are crucial to holding the plastic waste industry accountable and preventing mismanagement. The UK should implement a comprehensive digital

waste tracking service by 2025, ensuring real-time data accuracy and traceability. India should upgrade its CPCB EPR portal to integrate state-level efforts and allow public access, thus improving data accuracy and transparency. Digital tracking and public accountability would enable the identification of gaps in waste management and ensure that exported or imported waste is destined for ESM in both countries. These systems should be linked to international systems at Basel and the Global Plastics Treaty. All stakeholders, including civil society, should have access to this data to identify and address any gaps in waste management and ensure that exported waste is handled in an environmentally sound manner.

3. Ban plastic waste exports from the UK. The UK should take immediate steps to ban all plastic waste exports, including those to OECD countries. As evidence from Türkiye, Poland and other countries demonstrates, the current export practices continue to have severe negative impacts, including displacement of domestic recycling efforts and increased environmental harm. The UK should commit not just to banning plastic waste exports to non-OECD countries but to extending the prohibition to include OECD countries to ensure that waste is managed as close to the point of generation as possible, in line with the Basel Convention's proximity principle.



4. India should phase out plastic imports. India should phase out its reliance on plastic waste imports, reversing recent relaxations on PET imports, and focus on strengthening its domestic waste collection and recycling systems. Any imported recyclable material should be strictly monitored to prevent mismanagement and displacement of domestic plastic waste.

5. Strengthen national waste management and recycling systems. In the UK, reducing waste generation and enhancing domestic collection and recycling infrastructure is vital. Specific measures should include mandatory eco-design criteria, an all-in deposit return scheme and increased investment in mechanical recycling infrastructure. A moratorium on new incineration facilities, alongside an escalating incineration tax, would incentivise recycling over incineration. In India, investment in formalising and integrating the informal recycling sector into mainstream waste management is needed. This should include economic incentives for the informal sector to participate in formal EPR systems, coupled with financial and technical support. Strengthening local compliance with PWM and improving municipal waste management are essential steps for achieving long-term success.

6. Improve governance of recycling producer responsibility schemes. In both the UK and India, recycling credit schemes such as the UK's EPR scheme for packaging and India's EPR must be governed with stronger oversight to prevent fraud. This includes real-time monitoring, robust electronic plastic tracking systems and independent third-party audits. In India, regulatory loopholes that allow the issuance of fake recycling certificates must be closed. The CPCB should ensure that recycling facilities undergo independent audits and validate certificates before credits are

issued. A system to disqualify repeat offenders from accreditation, coupled with stringent penalties for violations, is necessary to create an effective deterrent against fraud in both countries.

7. Increase enforcement and international cooperation.

In the UK, enforcement agencies must be adequately resourced to tackle the complexities of plastic waste crime. The establishment of a Joint Unit for Waste Crime is a positive step, but increased funding and technical capacity are required to support intelligence-led enforcement, including cross-border cooperation. In India, the CPCB and state pollution boards must be better resourced to handle EPR enforcement. Enhanced coordination between central, state and local authorities is needed to manage both imported and domestic plastic waste effectively. Strengthening international cooperation under the Basel Convention and the Global Plastics Treaty is crucial for preventing illegal waste shipments and prosecuting offenders. Harmonised producer responsibility regulations between highly and less regulated countries are needed to minimise disparities and reduce the negative externalities associated with the transboundary trade in plastic waste.

8. Support the role of the informal sector in India.

India's informal recycling sector plays a critical role in managing plastic waste but requires formal inclusion and social security to enhance its effectiveness. The EPR framework should prioritise their inclusion by ensuring they have a voice in decision-making. Supporting the transition from the informal to formal sector will improve sustainable waste management practices in India.

This report has demonstrated that illegal practices in the global plastic waste trade persist despite existing governance frameworks. Stronger measures are urgently needed to address the systemic challenges that allow these waste crimes to occur.

The UK must lead by example in eliminating its reliance on plastic exports and improving its domestic recycling capacity, thereby mitigating the environmental and human health impacts associated with the global plastic waste trade.

As the UK moves towards fulfilling its ambition to be a world leader in tackling plastic pollution, it is essential that these reforms be implemented to stop waste colonialism and to uphold the rights of affected communities.

In the second part of this investigation, we will further examine the regulatory gaps and corruption that enable plastic waste to be exported to other countries.

This upcoming report will provide a deeper understanding of how these practices contribute to human rights abuses and environmental degradation and what further steps are required to ensure responsible global waste management.

Opposite page and above: The INC Secretariat and delegates from negotiating countries consult during the INC for an international legally binding instrument. The new instrument is an opportunity to end plastic pollution.



References

1. United Nations (UN) Comtrade Database. [Available here](#).

2. Basel Action Network (BAN) (2023). Global Export Data 2023 Annual Summary. [Available here](#).

3. United Kingdom (UK) Parliament (2023). MPs "surprised and disappointed" as government rejects key plastic waste recommendations. [Available here](#) and van Lonkhuyzen, L. (2023). Nederland tegen verbod op het verscheppen van plastic afval naar buiten de EU. NRC. [Available here](#).

4. Center for Climate Integrity (2024). The Fraud of Plastic Recycling: How Big Oil and the plastics industry deceived the public for decades and caused the plastic waste crisis. [Available here](#).

5. Organisation for Economic Co-operation and Development (OECD) (2022). Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, Figure 1.1. [Available here](#).

6. Environmental Investigation Agency (EIA) (2020). The Truth Behind the Trash. [Available here](#).

7. OECD (2022). Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, at pp. 44-53. Available here. [Pew Charitable Trusts \(Pew\) \(2020\). Breaking the Plastic Wave](#), at p. 87. [Available here](#).

8. Koshy, J. (2024). 6 lakh fake pollution-trading certificates unearthed in three States. The Hindu. [Available here](#).

9. Ryberg, M., A. Laurent and H. Michael (2018). Mapping of global plastics value chain and plastics losses to the environment: with a particular focus on marine environment. United Nations Environment Programme (UNEP). [Available here](#).

10. OECD (2022). Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, at p. 21. [Available here](#). Karlsson, et al. (2023). Plastic Waste Trade: The Hidden Numbers. International Pollutants Elimination Network (IPEN), p. 9. [Available here](#). Human Rights Watch (2022). It's As If They're Poisoning Us. [Available here](#).

11. OECD (2024). Policy Scenarios for Eliminating Plastic Pollution by 2040, p.22. [Available here](#).

12. OECD (2022). Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options, at pp. 34-35. [Available here](#).

13. UNEP (2024). Global Waste Management Outlook 2024: Beyond an age of waste – Turning rubbish into a resource. [Available here](#).

14. Straková, J. et al. (2022). Plastic Waste Management and Burden in China. IPEN, p. 9. [Available here](#).

15. Brooks, A.L., Wang, S. and Jambeck, J.R. (2018). The Chinese import ban and its impact on global plastic waste trade. Science Advances, Vol.4(6). [Available here](#). European Environment Agency (2019). The plastic waste trade in the circular economy. [Available here](#). Clark, S. and E. Howard (2018). US Waste is causing environmental harm at home and abroad. Unearthed. [Available here](#). And Ritchie, H. (2018). FAQs on plastics. OurWorldinData.org. [Available here](#).

16. Wang J. (2016). Plastic China (film). [Available here](#).

17. Wen Z., et al. (2021). China's plastic import ban increases prospects of environmental impact mitigation of plastic waste trade flow worldwide. Nature Communications. 12 (1), p. 425. [Available here](#).

18. Zhang, Y. (2017). Solid waste imports face stricter controls in boost to environment. The State Council, the Peoples Republic of China. [Available here](#).

19. Parker, L. (2018). China's ban on trash imports shifts waste crisis to Southeast Asia. National Geographic. [Available here](#).

20. Straub, C. (2018). Import restrictions ripple across Southeast Asia. Plastics Recycling Update. [Available here](#).

21. Basel Convention (2018). Report of the Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on the work of its eleventh meeting, UNEP/CHW/OEWG.11/15. [Available here](#). Application form for the placement or removal of wastes on Annexes VIII and IX, UNEP-CHW-COMM-Legal-CLI-Annexes-20180608. [Available here](#). Summary of reasons for the proposed placement, UNEP-CHW-COMM-Legal-CLI-Annexes-AddInfo-20180613. [Available here](#). The Basel Convention has nearly universal ratification with 191 Parties, see Status of Ratification [Available here](#).

22. The Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (Basel Convention) (1989). 1673 UNTS 126. [Available here](#).

23. Basel Convention Plastic Waste Amendments Overview. [Available here](#).

24. Basel Convention (1989). 1673 UNTS 126, Articles 3 and 4. [Available here](#).

25. UNEP (2021). From Pollution to Solution: A global assessment of marine litter and plastic pollution. [Available here](#).

26. EIA (2023). Plastic Waste Power Play: The offshoring and recycling displacement involved in trying to recycle EU plastic waste. [Available here](#).

27. EIA (2020). The Truth Behind the Trash. [Available here](#).

28. UNEP (2022). UNEA Resolution 5/14 entitled "End plastic pollution: Towards an international legally binding instrument". UNEP/PP/OEWG/1/INF/1. [Available here](#).

29. OECD (2024). Policy Scenarios for Eliminating Plastic Pollution by 2040, p.39. [Available here](#).

30. UNEP (2024). Compilation of draft text of the international legally binding instrument on plastic pollution, including in the marine environment. UNEP/PP/INC.5/4 ADVANCE. [Available here](#).

31. UK (2023). UK Proposal for changes to Article 10b. [Available here](#). India (2023). Part II Section 10 Trade in listed chemicals, polymers and products, and in plastic waste India. [Available here](#).

32. Maximize Market Research Private (2023). Recycled Plastics Market to grow at a CAGR of 8.9 percent reaching USD 53.01 Bn by 2029 Says Maximize Market Research. Global Newswire. [Available here](#).

33. Brown, A., F. Laubinger and P. Börkey (2023). Monitoring trade in plastic waste and scrap. OECD Environment Working Papers, No. 210, p. [Available here](#).

34. Department for Environment, Food & Rural Affairs (DEFRA) and Environment Agency (EA) (15 August 2024). Guidance: Extended producer responsibility for packaging: who is affected and what to do. GOV.UK. [Available here](#). EA (1 January 2024). Guidance: Packaging waste: producer responsibilities. GOV.UK. [Available here](#).

35. EA (2024). 2023 Reprocessor and Exporter UK Revenue Report. National Packaging Waste Database. [Available here](#).

36. National Audit Office (2018). The packaging recycling obligations. [Available here](#).

37. DEFRA (28 October 2022). Consultation outcome: Packaging waste recycling notes reform. [Available here](#).

38. DEFRA (2022). Extended Producer Responsibility for Packaging Summary of consultation responses and Government response. [Available here](#).

39. EA. 01 January 2024 to 10 September 2024. National Packaging Waste Database. [Available here](#).

40. Guest, H. (2023). Significant pressure' on plastic recyclers, BIR says. Letsrecycle.com. [Available here](#).

41. Everyday Plastic and EIA (2024). The hard truth about soft plastic, p.5. [Available here](#).

42. EA. Monthly packaging waste exported and accepted for reprocessing. National Packaging Waste Database. [Available here](#).

43. Ibid.

44. UK Trade Info. [Available here](#).

45. OpenAI (2024). 3000 double decker buses full of plastic trash.

46. INTERPOL (2020). Strategic Analysis Report: Emerging criminal trends in the global plastic waste market since January 2018. [Available here](#).

47. INTERPOL and UNEP (2016). The rise of environmental crime: a growing threat to natural resources, peace, development and security, p. 7. [Available here](#).

48. EA (29 September 2023). Packaging waste: apply to be an accredited reprocessor or exporter. GOV.UK. [Available here](#). Simkins, G. (2022). DEFRA seeks to tighten lax waste licensing rules. ENDS Report. [Available here](#). Gayle, D. (2017). My dog is a registered waste collector, says critic of lax regulation. The Guardian. [Available here](#).

49. DEFRA (2023). Consultation outcome: Government response and summary of responses. [Available here](#).

50. Ibid.

51. Ibid.

52. Pryce, C. (2022). The history of the wheelie bin. Wheelie Bin Solutions. [Available here](#).

53. Smulian, M. (2020). Fraudulent UK packaging waste exports 'lead to dumping'. MRW. [Available here](#).

54. O'Brien, H. (2024). Dirty waters: how the Environment Agency lost its way. The Guardian. [Available here](#).

55. EA (2024). Press release: Manchester company fined over £870,000 for illegal waste exports. GOV.UK. [Available here](#).

56. Thorton G. (2023). Extended Producer Responsibility (EPR) for plastic waste. [Available](#)

[here](#).

57. Ministry of Environment, Forest and Climate Change (MoEFCC) (2016). Plastic Waste Management Rules, 2016. The Gazette of India, Part II, Sec. 3(ii). [Available here](#).

58. Shanker, R. et al. (2023). Plastic waste recycling: existing Indian scenario and future opportunities. International journal of environmental science and technology. 20 (5), at pp. 5895–5912. [Available here](#). PTI News Agency (2024). India among 12 nations responsible for 60% of world's mismanaged plastic waste: Report. The Indian Express. [Available here](#).

59. Union Government Scientific and Environmental Ministries/Departments (Union Government) (2022). Report of the Comptroller and Auditor General of India for the year ended March 2021, Report No. 21. [Available here](#).

60. Singh, R.(2021). Integration of Informal Sector in Solid Waste Management. Centre for Science and Environment, p. 10. [Available here](#).

61. Ibid., at pp. 46-47.

62. MoEFCC (2019). Notification, 1 March 2019: Amendments to the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. [Available here](#).

63. BAN (2024). Plastic Waste Trade Data: India. [Available here](#).

64. Central Pollution Control Board (CPCB). (2022). Plastic Waste Management (Amendment) Rules, 2022. Gazette of India, Part II, Section 3(i). [Available here](#). Yadav, J. (2022). Explained: Why Government has allowed import of plastic waste after banning it in 2019. India Times. [Available here](#).

65. MoEFCC (2023). Plastic Waste Management (Second Amendment) Rules, 2023. The Gazette of India, at Rule 2, sub-rule (3). [Available here](#). Tax Guru (2023). Plastic Waste Management (Second Amendment) Rules, 2023. [Available here](#).

66. Union Government (2022). Report of the Comptroller and Auditor General of India for the year ended March 2021, Report No. 21, p. 82. [Available here](#).

67. UN Comtrade Database. [Available here](#).

68. Pandey, N. (2023). INTERVIEW: Indian startup bets on plastic credits market despite challenges. Carbon Pulse. [Available here](#).

69. Verra. Plastic Waste Reduction Program, Project 4054: Plastic waste reduction project by BLS Ecotech Ltd. [Available here](#).

70. Union Government (2022). Report of the Comptroller and Auditor General of India for the year ended March 2021, Report No. 21, p. 76. [Available here](#). Break Free From Plastic and Global Alliance for Incinerator Alternatives (2023). Smoke and Mirrors the Realities of Plastic Credits and Offsetting. [Available here](#).

71. CaseMine (2021). CPCB v. State of Andaman & Nicobar. [Available here](#).

72. Union Government (2022). Report of the Comptroller and Auditor General of India for the year ended March 2021, Report No. 21, p. 84. [Available here](#).

73. Ranipeta, S. (2021). Pollution Control Board fines Bisleri, Coke and Pepsi for non-compliance of plastic disposal norms. CNBC. [Available here](#).

74. Ibid.

75. Ibid.

76. Union Government (2022). Report of the Comptroller and Auditor General of India for the year ended March 2021, Report No. 21, p. 82. [Available here](#).

77. Climate Samurai (2024). CPCB uncovers massive fraud: Over 600,000 fake pollution trading certificates found in plastic recycling audit. [Available here](#).

78. LinkedIn (2024). Rahul V Podaar. [Available here](#).

79. CPCB (2023). Action taken report: Karnataka SPCB, Report. [Available here](#).

80. Shekher, R. (2024). Cybercons Hack Into CPCB's Portal 'To Steal Green 'Credit''. Times of India. [Available here](#).

81. Mishra, V. (2022). DTE Investigation: CPCB failed to recover fines from Coca-Cola, Pepsi, Reliance, Adani in last 30 years. Down to Earth. [Available here](#).

82. Global trade data (2024). Enviro Recyclecan 2024.

