

We're talking Turkey on waste

by Tad Kirakowski



Where Irish plastic goes for a prolonged death: a Turkish plastic dump

If I looked in your bin right now I can make a few safe assumptions. I can say that you have produced more waste this year than last year. Each person in Ireland creates half a tonne of waste per year and that is growing. You have put most of that waste into the general waste bin and you have probably recycled less than you did the last two years. When I look in your recycling bin I can safely bet that about a third of it is material that should not be in there, while in your general waste bin over half of it could be separated and disposed of in separate waste collection streams (mostly recycling or organics waste collection, if you have access to organics collection in your area). That general-waste bin waste? That will primarily go to incineration or energy recovery.

In Ireland, approximately 35% of everything here will ultimately be shipped out of Ireland for recycling or energy recovery in another country. I can hear you ask already “but where’s it going, and is it really recycled?” - don’t worry I’ll get to that...

I can tell all of this because of the EPA household waste characterisation report 2018, which showed that in Ireland we have been producing more waste per capita and recycling less of it. It also crucially showed that our waste generation is tightly linked to our consumption of goods and services, and we appear to be reliant extensively on single-use items and packaging, which is cause for serious concern for our circular-economy ambitions. Ireland of course is not alone in this regard; the World Bank has noted that waste generation increases with economic development¹.

Sadly, Ireland has the highest per capita plastic consumption rates in Europe and we are likely to just about hit or potentially miss our 2025 EU recycling targets. Exactly why we consume so much more plastic in Ireland is unclear and there is research ongoing to understand why this is happening. In part it may relate to being on an island and how we receive goods - plastic wrapping can help to preserve foods for longer, at the same time REPAK point out that it is in part because of how we calculate our

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1: “They are constantly burning the waste. We are breathing in all the smoke. We cannot even open the window because of the smell,” Izzettin Akman a citrus fruits grower in Ankara, neighbouring one of the dumping sites. <https://tol.org/client/article/a-dumping-ground.html>

waste generation (which to be fair is a more rigorous standard than typically applied across the EU).

However, can we really say we are doing our best to work to improve this ignominious ranking.

The story of plastics

Let's get one thing out of the way, plastic is a fantastic material. Plastic is light, tough, durable, easily moulded into almost any shape, and most importantly cheap. No wonder in 1967 Mr McGuire pulled a young Dustin Hoffman aside in *The Graduate*, to give him one word: Plastics. However this combination of cheap and durable also means that plastics are used... a lot, and when we're finished with them they don't decompose. They stay in the environment – unless we actively manage them, and to date, we have not managed them very well.

Plastic is one of the biggest global environmental challenges of this generation. If we are serious about reducing carbon, then we have to seriously deal with the plastic crisis also - as the two are interwoven.

Plastics are a byproduct of the oil and gas industry. Each and every part of the plastic lifecycle is carbon intensive. Plastics are a material with an international lifecycle, going beyond any one state or even continent, making them difficult to regulate.

Raw materials are brought up through an oil well, products are made from the synthesised plastics, those products are used across the globe and either end up in a bin where they may be shipped across the world for disposal or recycling and end up in the environment, where they take lifetimes to decompose into micro-plastics.

It is still unknown what happens to micro-plastics and whether they even break down completely. Certainly, very piece of plastic that has ever been made in the last century is still in our environment today.

The petrochemical industry is still betting big on plastic as more and more countries begin to make commitments to lower their fuel consumption and associated CO₂ outputs. Petrochemicals (among them various plastic types) represent an opportunity to industry to continue to pump out the oil and even to expand operations to meet perceived, or often created, plastic demand.

Once this virgin plastic is made into, say, a drinks bottle, that bottle is probably wrapped in more plastic and shipped to a shop, where you buy it, before opening it, consuming its usually less environmentally significant contents, and ultimately disposing of it. If you put it into a recycling bin, it will go from there to a sorting facility and then to a processing facility, where it will be washed, chipped and



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sold as recycled PET (rPET) to be made once again into another product, though very rarely into another bottle.

Plastic waste

Until 2017 it was a safe bet that the bottle you put in the bin was on a trip to China, which processed almost 54% of the world's plastic waste. That is until Operation National Sword. Through that operation, the Chinese authorities systematically opened containers of waste plastics arriving in China, and decided that the quality of plastics they were receiving was so low as to not be recyclable or worth the environmental harm being caused by it. China announced to the OECD that they would only accept fully segregated plastics with a contamination rate of 0.5% or less. Almost overnight China was processing 0% of the world's plastics waste.

It is worth pausing for a moment here to consider that China didn't stop taking clean and easily recycled material; it stopped accepting contaminated or difficult to handle waste. The causes for this contamination are across all the stops along the way from design to disposal.

Many products are made of multiple layers of different types of plastic, making them difficult to separate and adequately recycle.

When we mix our recyclables and non-recyclables together they are difficult to separate and often become contaminated by food or other residue - reducing the ability to recycle; and finally the waste trade has limited visibility as to where or how it is being processed in receiving countries.

The ban caused something of a crisis for an already beleaguered international recycling system. Countries across the world suddenly needed to find alternative destinations or to warehouse large quantities of a highly flammable material until it could be sorted. It also caused consumers to suddenly sit up and take notice - asking what had been happening with their recycling.

The impacts were severe enough that Interpol conducted an investigation into the illegal waste trade: producing a report in 2020, showing that the destination for illegal

waste is largely the same as the destinations for legal waste.

As a result, the receiving countries, which typically do not have well developed or managed facilities, are overrun and cannot deal with the quantities of waste they receive.

For the EU, and European countries, the ban precipitated a major shift in waste-handling patterns, with 43% of plastic waste currently produced by European countries now staying within Europe, though mostly shipping to Eastern European countries. Turkey arose as the major receiver of European plastic waste. Turkey is the UK's top destination for plastic waste exports, taking around 210,000 tonnes, or 30pc of the total, in 2020,

A Greenpeace report in May of this year showed the consequences of this waste on the Turkish environment - with packaging from major German and UK retailers turning up in the rivers and beaches of southern Turkey.

In 2021, Turkey appeared to take preventative steps on the issue by announcing a complete ban on imported European waste. However, following substantial lobbying from the plastics and recycling industry the Turkish government lifted the ban after just eight days, instead introducing a law that would increase regulation of plastic-waste imports and management.

The success of the regulations will rely greatly on the level of enforcement in Turkey and the degree to which origin countries comply. Local residents are still calling for a total ban: "Set as many restrictions as you want. This issue won't be resolved unless they ban it completely", according to Sedat Gundogdu, a researcher on microplastics who has analysed the illegally dumped waste in Adana finding rubbish from Ireland, the UK, Germany and many other European countries.

While the data for 2021 are not yet published, it would seem likely that Turkey is still the main receiver of Irish plastic waste and that waste is likely still leaking into the environment in large quantities. Locals in Adana still complain of waste being burned constantly, and that as a result of the smoke and fumes windows must remain shut even at the height of Turkish summer².

A research team in NUIG estimated that a

2: <https://news.sky.com/story/document-reveals-coca-cola-opposes-bottle-return-scheme-10742502>



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third of waste shipped out of Ireland for recycling will not be recycled and gave a conservative estimate that 3% of plastic waste from Ireland ends up in the marine environment. Given that we produce 300 million tons of plastic per annum as a nation; that's 9 million tonnes of Irish plastic waste being tipped into the sea every year.

For the international trade in plastics, there are signs of hope though. The recent amendments to the Basel Convention, which came into force in January 2021, now mean that shipment of plastic waste is more highly regulated with receiving countries now able to refuse shipments before they leave or return shipments if they are overly contaminated. How this plays out, whether these receiving countries will be able to enforce that rule will be a big test of the international communities' sense of social responsibility.

Whose waste is it anyway?

There is a legitimate question often asked when VOICE gives workshops on recycling: "But I've done everything right, I've sorted my recycling and put it out clean dry and loose – so how is it still ending up ruining a beach in Turkey, and who is responsible for that?". The short answer at the moment is, well, no one.

Internationally there are moves afoot to tighten the rules through the UN's Sustainable Development Goals (SDG 12 and SDG 14 particularly address this issue). The Basel convention may bring in some greater state level responsibility but there is one major player in the background very rarely mentioned – the producer.

The responsibility must come back to some extent on the producer of the packaging. The global brand audit attempts to do just that, by getting the producers to acknowledge their part in the plastic crisis. The brand audit aims to reflect the global nature of the supply chain by bringing together data from litter picks and cleanup actions from across the world to understand where the waste is coming from



Waste from Bank of Ireland in Turkey

and who is putting it out there.

For three years running Coca Cola, Nestlé and Pepsi have topped a global brand audit (here in Ireland, Lidl topped the poll in 2020 and 2018, with Pepsi sneaking in for 2019).

To date we have massively undervalued the price of the management of litter, but there's an important message: we may be the ones who have to deal with the waste but the packaging is produced by companies who should be designing better.

Beware of greenwashing.

Green rhetoric is often belied by product design and region-specific messaging.

For instance Coca Cola lobbied against the introduction of a DRS in Scotland in 2017³, and is currently being sued in the US for failing to implement an effective recycling strategy and for actively opposing legislation to

improve recycling rates.

As Europe establishes rules to increase recycled content in PET bottles, NGOs across Europe are worried about how those rules are to be defined, and particularly how we estimate the proportion of rPET per bottle. NGOs worry that without clear guidelines here industry may advertise plastics as being 100% recycled plastic, despite being made mostly of virgin plastic material.

Plastic and the circular economy

A phrase you may hear more and more of over the coming months is The Circular Economy. Ireland currently has a Circular Economy Act Heads of Bill under consideration, while the EPA is putting together a circular economy strategy. This all comes on foot of the EU's ambition for Member States to lead the way on the circular economy, envisioning it as a way to boost European competitiveness in the global market.

3: <https://www.natlawreview.com/article/coca-cola-sued-deceptive-sustainability-claims>

The circular economy aims to decouple resource consumption and the generation of waste from economic growth. If we can eliminate the waste plastics and reuse the plastics we have, we can maintain the usefulness of plastics while reducing the harm. The Ellen MacArthur foundation has campaigned for just such an approach to plastics. The EU approach to the circular economy is based on the concept of the waste hierarchy – an approach which prioritises waste prevention in the first instance, followed by reuse, recycle, recovery and the final option, disposal.

Internationally there are calls for a convention on plastic wastes, but some, including the Centre for International Environmental Law argue that this is perhaps too narrow, that what we need is a convention on plastic, covering the material from cradle to grave (or ideally, cradle to cradle).

What can we do about it?

We don't even have to look abroad to see the public cost of the mismanagement of waste: litter collection and municipal waste management here at home costs Councils on average €1400 per tonne, which doesn't even consider the time of volunteer litter-pickers.

The ECJ found against Ireland in 2004 for the operation of illegal dumps, and since then we've drastically changed our waste-management approach. The number of active (legal) landfill sites went from 50 landfill sites in 2001 to just 3 in 2018.

However, we appear, somewhat scandalously, to be diverting most of that waste not to recycling or composting but to incineration – a huge source of CO₂ emissions. We have moved up one rung of the waste hierarchy, but there are several more to go to reach our goal of waste prevention. The climate impacts of incineration are something we will also have to reckon with.

In the face of a global plastic crisis measured in mega-tonnes per annum, the situation can seem daunting for any one individual.

Individual action matters but of course the most powerful thing we can do is lobby government and industry for improvements. We can use the power of consumer choice. We know that if we are to see a real reduction in our waste outputs then we need EU/Governmental targets and more stringent levies for producers. For example, set refill targets for each sector would see a drastic fall in the amount of packaging waste we are taking home and putting into our bins.

Ireland will soon establish a deposit return scheme (DRS), that will cover bottles and cans. This DRS will help us to reach recycling targets (90% by 2025 for PET bottles), and gratifyingly over 90% of people in Ireland support this initiative. DRS allows for the segregated collection of high-value plastics with little to no contamination. This can increase the recycling potential of the material which will be central to Europe's aim at a more circular economy.

A DRS in practice means that we pay a small deposit on a plastic bottle or drinks can, which can then be redeemed at machines in retail outlets

But perhaps the easiest thing we can do is to reduce the waste we create. Here are some of VOICE's suggestions.

- Where possible use and support refill or reuse options where they are available.
- Try buying loose fruit and veg – it will reduce your packaging and food waste.
- There is a tension in the world of plastics right now. On the one hand we are seeing increasing calls for better management of plastic wastes, and recycling. On the other hand, there is a ramping up of virgin plastic production. Bluntly, we are consuming more, and recycling less.
- Consumer action and government policy needs to move sharply to reflect popular concern and good will.



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across the country. This approach has worked spectacularly in countries where it has been introduced; in Denmark the introduction of a DRS saw collection rates greater than 92%.

By placing even a small value on the item we are encouraged to bring it back and have the bottle or can recycled effectively. VOICE is spearheading a campaign to ensure we get an effective DRS system in Ireland and we are calling for communities and business owners across the country to add their voice to the call by signing up to the #ReturnForChange campaign.

As individuals we can manage our waste properly to maximise the chances it will be recycled. For example all recycling should be clean (no food residue or left over milk in the bottle), dry, and loose (don't stuff items into one another particularly if they are different materials (all the recycling into a cereal box for instance). Don't give in to 'wish-cycling' where people place material in the recycling bin in the hope that it might be recycled – at best it will be incinerated, more likely it will prevent other material from being recycled so that it instead becomes part of a pile of waste on a beach in the eastern Mediterranean. **LE**

Tad Kirakowski is a project manager with Voice Of Irish Concern for the Environment, a member-based Irish environmental charity that advocates for the government and the corporate sector to adopt environmentally responsible behaviours, and for the development of strong national policies on waste and water. Further information on DRS is available at: <https://www.voiceireland.org/campaign/return-for-change-drs>