



Cleaning up our act

REFORMING LANDFILL TAX FOR PLACE
RESILIENCE AND BEST LOCAL OUTCOMES

By Callin McLinden



About Localis

Who we are

We are a leading, independent think tank that was established in 2001. Our work promotes neo-localist ideas through research, events and commentary, covering a range of local and national domestic policy issues.

Neo-localism

Our research and policy programme is guided by the concept of neo-localism. Neo-localism is about giving places and people more control over the effects of globalisation. It is positive about promoting economic prosperity, but also enhancing other aspects of people's lives such as family and culture. It is not anti-globalisation, but wants to bend the mainstream of social and economic policy so that place is put at the centre of political thinking.

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- **Decentralising political economy.** Developing and differentiating regional economies and an accompanying devolution of democratic leadership.
- **Empowering local leadership.** Elevating the role and responsibilities of local leaders in shaping and directing their place.
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- **Reforming public services.** Ideas to help save the public services and institutions upon which many in society depend.

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Executive summary

Over the last thirty years landfill policy has been among the most successful and singularly effective of government environmental policies. Since its introduction, the UK Landfill Tax has succeeded in drastically reducing mixed municipal waste to landfill by 90 percent. However, there is a principled, place-based case for future long term policy reform to address the following challenges to successful landfill policy. Perverse incentives and misaligned policy risk encouraging behaviours which are harmful environmentally, socially and economically. This report provides an overview of the key challenges and barriers to efficiency in the current system and presents some possible reforms to bring the landfill tax into line with the policy landscape of the 2020s.

The landfill tax in 2024

The UK Government instituted the landfill tax in 1996 with the primary objective of reducing the reliance on landfill sites for waste disposal. The tax is structured to be based on the weight and classification of the waste material, distinguishing between 'active' and 'inactive' waste.

Over the last decade, landfill tax policy development has been marked by adjustment in tax rates without a major structural alteration to the policy itself. More recently, there has been a shift in focus from government towards integrating landfill tax policy with the country's environmental objectives, such as achieving net zero avoidable waste by 2050. The government is actively pursuing policies aimed at preventing biodegradable waste sent to landfill, to align with these objectives.

The future of landfill policy is also connected to legislation which impacts other forms of waste management. The government's approach to carbon pricing, particularly through mechanisms such as the CBAM (Carbon Border Adjustment Mechanism) and the ETS (Emissions Trading Scheme) has implications for waste-to-energy sites receiving waste which would have been sent to landfill in prior decades.

As the responsible agency for collecting and disposing of household waste, local government is a major contributor of landfill tax. The costs to local government associated with this tax are typically passed on to residents as a portion of

council tax. The waste management costs of local authorities are significant, standing at over £5bn across English councils in 2023. The role and resourcing of the local state must therefore be of paramount concern in the ongoing discussion of taxation and best environmental outcome – not just pertaining to the landfill tax but across the gamut of environmental policy.

Overall, the last thirty years of the landfill tax provide an example of an effective and successful government environmental policy, with major reductions in waste to landfill achieved and significant revenue collected for the Treasury. Yet the policy landscape in 2024 is vastly different from that of 1996. The landfill tax, having been largely static at a structural level since the 1990s, is not aligned with current terms and definitions used in waste guidelines, creating complexities and inefficiencies which must be resolved through a modernisation of the system.

Nationally, we must continue on the journey to a circular economy by reducing the disposal of biodegradable wastes or wastes that can otherwise be reused, recycled or recovered to landfill to the absolute minimum, without pretending that there are not materials out there – from asbestos to hazardous chemicals – which cannot viably be reused, recycled or recovered at a large scale and are better safely contained in a highly engineered, modern landfill site. The question for policy is how we can, across the whole of society, create a complementary suite of incentives to continue to support the transition whilst minimising perverse outcomes and continuing to sustainably generate government revenue.

Unintended consequences and inefficiencies

Waste crime

An unintended consequence of setting the landfill tax at a prohibitive level, with a large differential between the higher and lower rate, is the escalation of waste crime, particularly in the form of illegal dumping or fly-tipping. Such actions not only undermine the environmental goals of the landfill tax by causing harm to natural habitats and the social cohesion of local communities, but also pose significant challenges for waste regulation enforcement. Despite efforts outlined in the 25-year Environment Plan and the Resources and Waste Strategy by the Department for the Environment, Food and Rural Affairs (DEFRA), with the Environment Agency, the Scottish Environmental Protection Agency, Natural

Resources Wales and the Joint Unit for Waste Crime at the helm, there is a noted discrepancy in the effectiveness of current measures. The Environmental Services Association has estimated that waste crime costs the economy in England about £1bn per year, a 55 percent increase since 2015.

There are significant issues undermining the efficacy of regulatory measures. For fixed penalty notices, the rate of payment is considerably low as payment is ultimately voluntary. A key concern is the failure of courts to consistently observe sentencing guidelines – with a widely varying interpretation across the country leading to a high degree of variation in punishment for the same crime. Furthermore, the sector grapples with rampant landfill tax fraud and evasion, driven by loopholes that savvy operators exploit, thereby creating an uneven playing field in the waste management sector.

Despite having a legal framework to penalise company directors for waste crimes, actual investigation and prosecution remain limited, with penalties often not reflecting the financial benefits derived from illegal activities. This issue is exacerbated by the Environment Agency's funding being overly reliant on grants, statutory charges, and levies, impacting its operational capacity to effectively enforce waste regulations. Furthermore, the closed nature of system – where funding provided via environmental permit subsistence fees is ringfenced for the inspection of permit holders, and therefore does not cover those who operate illegally without a permit – widens the gap in oversight.

The gap in regulation and enforcement has led to a scenario where the financial and operational liabilities of directors and their companies are disconnected from the environmental and public health outcomes of their business activities. This situation underscores the necessity for immediate and focused action to restore the regulatory framework's integrity, ensuring that it effectively combats crime and supports sustainability.

Tax inefficiency

For the year 2021, the tax gap for landfill tax was calculated at 22.7 percent or £200m, indicating inefficiency in tax collection. Such a tax gap suggests high levels of tax evasion and avoidance, typically occurring through misclassification of waste, underreporting of waste volumes, or illegal dumping. The two tax

rates applied to the UK landfill tax do not differentiate between the disparate environmental and social costs associated with various types of waste and landfill sites. The simplicity and supposed fairness of a split between active and inactive waste in the tax rate comes at the cost of economic distortions, including market fragmentation, and a decrease in tax revenues.

The absence of a middle band or further bands within the landfill tax system potentially undermines the tax's effectiveness in promoting sustainable waste management, due to limited price signals acting as a deterrent, reduced incentives for waste minimisation, the oversimplification of waste categories, and missed opportunities for innovation, research and development. A more nuanced system of tax bands could account for materials with a moderate environmental impact, yet offer some potential for recycling or recovery if managed well, such as mixed non-recyclable plastics, composite materials, textiles, and non-hazardous industrial waste.

Another concern is the growing gap between the standard and lower rate of landfill tax. The standard rate, which applies to 'active' materials, had been intended to increase annually in line with the Retail Price Index (RPI) inflation rate, leading to a significant differential from the lower rate, which applies to inactive or inert materials. This gap has grown substantially since the tax's inception in 1996, leading to concerns about misclassification of waste to take advantage of the lower rate. Moreover, the reality has starkly contrasted with the aforementioned intended increases by government – when adjusted for inflation, the standard rate of landfill tax has effectively decreased in real terms.

A government response to a call for evidence on landfill tax acknowledged that the lower rate could be raised to narrow the gap between the two rates. This indicates an awareness of the tax's inefficiencies in its current form and a willingness to consult with stakeholders for potential adjustment.

Understanding ecological impacts and the waste hierarchy

Landfills have the potential to contribute significantly to environmental pollution through the release of leachate, odours, and greenhouse gases, posing threats to ecosystems and public health. Hence, the introduction of

the Landfill Directive that required modern landfills to be highly engineered facilities which minimise unacceptable risks to human health and the environment. The further pressing issue of legacy chemicals within landfills, notably poly-chlorinated biphenyls (PCBs) and per/polyfluorinated substances (PFAS), colloquially known as 'forever chemicals', presents an escalating environmental impact. These substances, once commonly used in numerous applications and disposed of in landfills for decades, are now recognised for their enduring environmental and health impacts due to advancements in scientific understanding. The situation underscores the need for additional funding and a strategic approach to manage the legacy of chemical contamination, ensuring landfill sites are treated responsibly to safeguard public health and the environment.

The current classification of waste into active and inactive categories, as dictated by the UK's landfill tax legislation, has inadvertently fostered practices that are at odds with the waste hierarchy's core objective of achieving best overall environmental outcome. There is discrepancy between the landfill tax's classification system, overseen by the Treasury, and the methodology used to classify waste for regulatory purposes in legislation overseen by Defra.

Policymakers, both centrally and locally, must undertake to redefine waste management practices and properly differentiate between materials that can only be landfilled and those which can be disposed of in other ways, ensuring they are conducive to the dual objectives of economic viability and environmental sustainability. Only through such comprehensive policy reform can the country's waste management strategy be realigned with the principles of waste hierarchy, thereby fostering a system that truly promotes the Best Overall Environmental Outcome.

Learning from international examples

The table below presents a summary of international approaches to landfill taxation which could inform reform in the UK.

Country	Summary	Lessons for the UK
Austria	<p>Austrian environmental law is relatively decentralised, with a mix of federal and provincial regulations preventing codification, and includes principles like preservation of nature, polluter pays, and prevention of environmental degradation.</p> <p>The Austrian landfill tax, introduced in 1989, funds the cleanup of contaminated sites, with €1.2bn raised by 2014, encouraging waste diversion through varied tax rates and a ban on landfilling waste with over 5 percent 'total organic carbon'.</p>	<p>Dedicated funding for remediation and regeneration.</p> <p>A more nuanced tax structure, providing clear financial incentives for reducing landfill use.</p> <p>Banning specific types of waste for landfill disposal.</p> <p>High technological and operational standards.</p> <p>Local innovation within EU compliance.</p> <p>Public awareness and participation.</p>

<p>Netherlands</p>	<p>Introduced in 1995, the Netherlands' landfill tax uses differentiated tax rates, with higher taxes on combustible and recyclable waste.</p> <p>Exemptions exist for certain types of waste, supporting environmentally friendly practices, alongside a general waste disposal charge applied since 2016.</p> <p>The policy has significantly reduced landfill use, with only 2 percent of waste ending up in landfill, 81 percent recycled, and 17 percent incinerated.</p>	<p>Differentiated tax rate system.</p> <p>No distinction between hazardous and non-hazardous waste, instead opting for combustible, recyclable, or non-combustible.</p> <p>General waste disposal charge, applied to both landfilled and incinerated waste.</p> <p>Exemptions for recycled waste, dredgings, and burning of sewage sludge.</p> <p>Circular economy principles.</p>
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<p>New Zealand</p>	<p>New Zealand Waste Disposal Levy, part of the Waste Minimisation Act 2008, imposes charges on landfill sites to fund waste reduction initiatives and cover administrative costs, with rates varying by landfill class.</p> <p>Half of the levy's proceeds support local authority waste minimisation projects, while the remainder funds a centralised Waste Minimisation Fund, after administrative expenses.</p> <p>Progressive rate increases for different landfill classes aim to incentivise sustainable waste management practices.</p>	<p>Progressive levy structure with nuanced classification of landfills (municipal, construction and demolition, managed fills).</p> <p>Dual purpose design, designed to not only generate funds but also address costs associated with waste disposal.</p> <p>Comprehensive allocation of funds.</p> <p>Transparent and accountable allocation of funds and requirement for reporting and monitoring.</p> <p>Adaptability and scalability, allows the policy to respond to changing environmental and societal needs.</p>
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Recommendations

Reform of the landfill tax should seek to incorporate the waste hierarchy to ensure only the right waste materials end up in landfill, by implementing variable tax rates or other policy mechanisms based on the environmental impact of waste types and necessity of landfill, to incentivise sustainable disposal choices for non-hazardous and biodegradable waste.

- As a means to this end, government should **introduce an intermediate tax band to bridge the gap between standard and lower rates**, reducing the incentive for misclassification of waste and promoting fairer taxation.
- There is also a need to **allocate a portion of landfill tax revenues to fund research and development** aimed at advancing technologies for waste recovery, reuse, and recycling, as well as for legacy chemical cleanup, and to **allocate a portion to funding the prevention of waste crime**.
- The Environment Agency needs **an expanded budget, and associated targets, for prosecuting waste criminals**, with on-the-ground enforcement necessary to match recent increases in attention to the financial aspect of waste crime.
- Government must **enhance local authority powers to enforce waste regulations**, including increased fines and penalties for fly-tipping, with revenues to support local clean-up efforts and landfill site development. Councils must also be given the responsibility – with associated funding – to assist private landowners who are the victims of flytipping in safe, responsible disposal.
- Building on positive recent steps, government must continue to **increase transparency and efficiency in tax collection** to combat high levels of tax evasion and avoidance, possibly through stricter enforcement measures and improved monitoring technologies.

CHAPTER ONE

The Landfill Tax in 2024

This section gives an overview of the last 28 years of the landfill tax and examines how the charge fits in the current landscape, concluding with a discussion of the drastically different position of one of the policy's key stakeholders, local government.

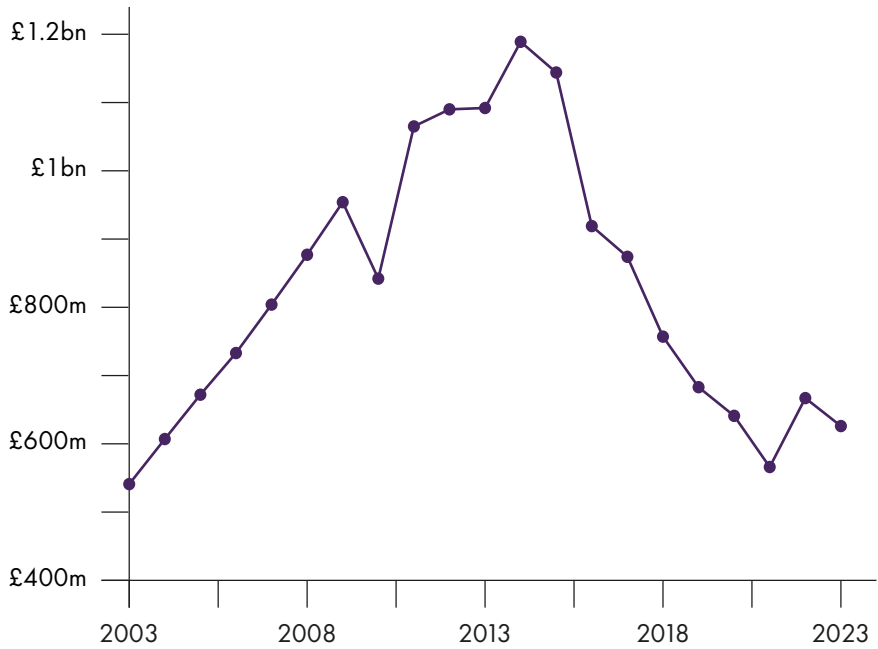
1.1 Overview

In the pursuit of fostering sustainable waste management practices and adhering to the EU's environmental directives, the UK government instituted the landfill tax in 1996 under the guidance of then Conservative Secretary of State for the Environment, John Gummer. This environmental tax was established with the primary objective of reducing the reliance on landfill sites for waste disposal, thereby aligning with the targets outlined in the Landfill Directive, particularly concerning the landfilling of biodegradable waste. The tax is structured to be based on the weight and classification of the waste material, distinguishing between 'active' and 'inactive' waste.

Active waste encompasses a range of materials, including wood, plastics, and various construction elements which attract a standard rate of tax, while inactive waste primarily consists of building materials such as concrete, soil, and gravel (in respect of which a significantly lower tax rate is payable). The operational dynamics of the landfill tax necessitate landfill site operators bear the financial responsibility, with the cost typically passed on to businesses and local councils. A notable feature of this tax structure is the provision for operators to mitigate their tax liability through contributions to the Landfill Communities Fund, a scheme designed to support community or environmental projects in the vicinity of landfill sites.

Figure 1. Landfill tax receipts in the UK

2003-2023

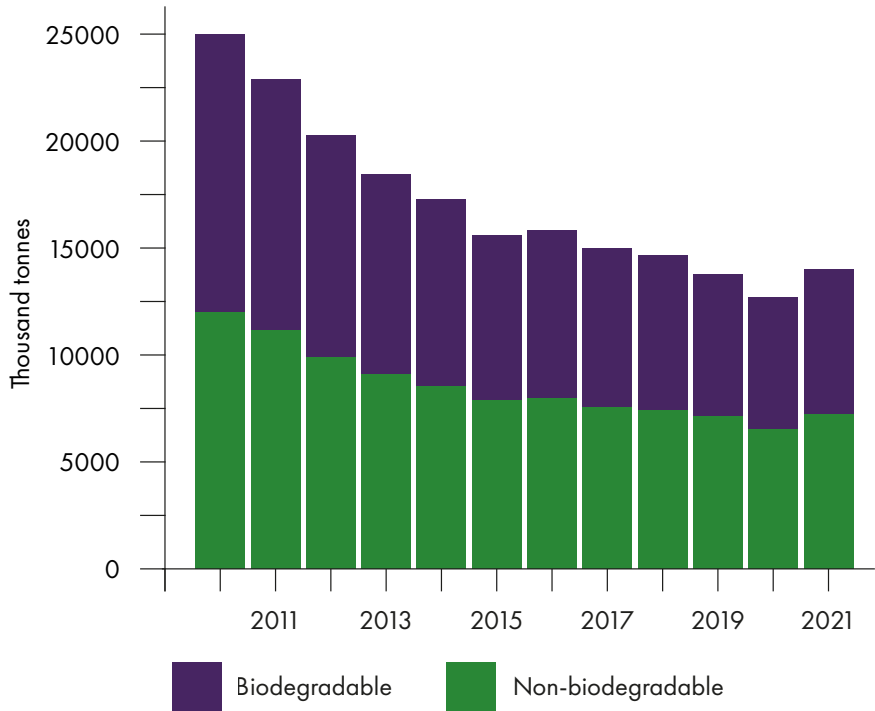


Source: HMRC

Overall, the last thirty years of the landfill tax provide an example of an effective and successful government environmental policy, with major reductions in waste to landfill achieved and significant revenue collected for the Treasury. Yet the policy landscape today is vastly different from that of 1996. Most significantly, a society-wide commitment to net zero led by government targets has transformed the end goal of environmental policy, with recent developments such as the 25 Year Environment Plan representing a more ambitious and holistic vision at the quarter mark of the 21st century than at the end of the 20th. The proliferation of waste-to-energy sites along with a shift towards carbon pricing policy are part and parcel with the overall reorientation to a more circular economic model. The landfill tax, having been largely static at a structural level since the 1990s, is not aligned with current terms and definitions used in waste guidelines, creating complexities and inefficiencies which must be resolved through a modernisation of the system.

Nationally, we must continue on the journey to a circular economy by reducing the disposal of biodegradable wastes or wastes that can otherwise be reused, recycled or recovered to landfill to the absolute minimum, without pretending that there are not materials out there – from asbestos to hazardous chemicals – which cannot viably be reused, recycled or recovered at a large scale and are better safely contained in a highly engineered, modern landfill site. The question for policy is how we can, across the whole of society, create a complementary suite of incentives to continue to support the transition whilst minimising perverse outcomes and continuing to sustainably generate government revenue.

Figure 2. Municipal waste to landfill in the UK



Source: DEFRA

1.2 Current policy landscape

Over the last decade, landfill tax policy development has been marked by adjustment in tax rates without a major structural alteration to the policy itself. The primary change has been the regular alteration of the standard and lower rates of the tax, which the government has attempted to keep in-line with the Retail Prices Index (RPI)¹. This alignment, in theory, ensures that the tax keeps pace with inflation. Notably, from April 2013 to April 2023, the standard rate escalated from £72 to £102.10 per tonne, while the lower rate rose from £2.50 to £3.25 per tonne^{2,3}. These changes were part of the broader strategy to adjust financial levers in response to economic conditions. Furthermore, the devolution of the landfill tax to Scotland in 2015 and Wales in 2018 allowed for tailored strategies that cater to the specific environmental and operational contexts of the two devolved nations, although the rates of landfill tax are the same across all UK nations.

More recently, there has been a shift in focus from government towards integrating landfill tax policy with the country's environmental objectives, such as achieving net zero avoidable waste by 2050. The government is actively pursuing policies aimed at preventing biodegradable waste sent to landfill, to align with these objectives. A key aspect of this strategy is the mooted ban on biodegradable waste to landfill, which would seek to eliminate the disposal of biodegradable waste in landfills by 2028, currently being consulted on by DEFRA⁴.

1 HM Revenue & Customs (2023) – [Landfill tax rates for 2023 to 2024](#)

2 HM Revenue & Customs (2023) – [Landfill tax rates for 2023 to 2024](#)

3 HM Revenue & Customs (2023) – [Environmental Taxes Bulletin: Historical rates](#)

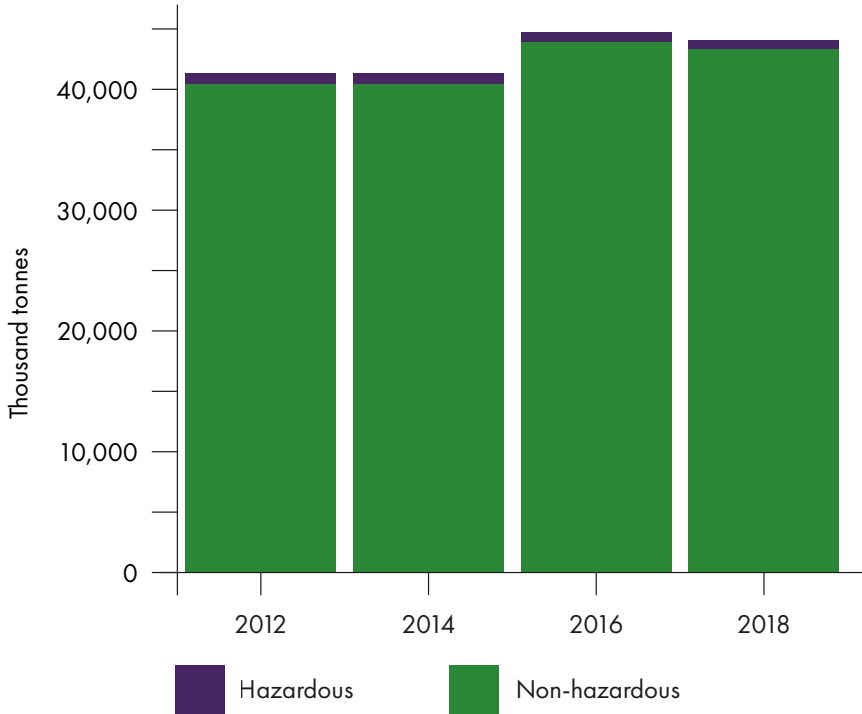
4 Department for Environment, Food & Rural Affairs (2023) – [Call for Evidence: Near elimination of biodegradable waste disposal in landfill from 2028](#)

In this context, calls for evidence have been issued, seeking views on design features of the landfill tax, including the rates applicable to different materials and the circumstances under which the exemptions and discounts could be claimed, and to gather input on achieving the near elimination of biodegradable waste disposal from landfills from 2028⁵. For the consultation on the design of the landfill tax, the initiative concluded with the government issuing a summary of responses in March 2023. For the consultation on the landfill ban, a second consultation is due to be launched in 2024.

In response to the call for evidence on the design of the landfill tax, the government has emphasised continued engagement with stakeholders before making further policy announcements. While it acknowledges the potential need for higher tax rates on certain materials to incentivise sustainable waste management, it also recognised other factors influencing resource and waste management beyond tax rates. Additionally, the review of landfill tax's role is ongoing, with the Treasury yet to comment on future steps or outcomes of this review⁶.

5 Deloitte (2024) – *Landfill tax review*

6 Eminton (2022) – *Treasury delays announcement of 2024/25 landfill tax rates*

Figure 3. Total waste sent to landfill as final treatment, England

Source: DEFRA

The future of landfill policy is also connected to legislation which impacts other forms of waste management. The government's approach to carbon pricing, particularly through mechanisms such as the UK Emissions Trading Scheme (ETS), demonstrates a broader commitment and tacit understanding of the need to reform environmental taxation and regulatory measures aimed at reducing carbon emissions and promoting sustainable practices. While a landfill tax specifically targets waste disposal in landfill, carbon pricing mechanisms aim

to reduce carbon emissions across a wider array of sectors, including industrial production and energy generation – which has implications for waste-to-energy sites receiving waste which would have been sent to landfill in prior decades. Both strategies have the potential to be integral to the UK’s environmental policy framework, but this would require a better alignment and comprehensive incentive structure.

A final consideration in the current policy context is the sharp rise in inflation in recent years. Despite the government’s stated policy of incrementally increasing the standard rate of landfill tax in alignment with the Retail Price Index⁷, the reality has starkly contrasted with these intentions. When adjusted for inflation, the standard and lower rates of landfill tax have effectively decreased in real terms, undermining the incentives designed to encourage more environmentally sustainable waste management practices and casts doubt over the consistency and predictability of environmental regulations coming from central government.

1.3 The local government position

As the responsible agency for collecting and disposing of household waste, local government is a major contributor of landfill tax. The costs associated with this tax are typically passed on to residents as a portion of council tax. Since 1996, in an effort to avoid these costs, they have turned to alternative methods like incineration for waste disposal. This strategic shift is a direct response to the financial implications of the tax, illustrating the tax’s success in influencing local government waste management policies.

Yet the situation for local government today is vastly different to the time of the tax’s introduction. Local authorities have experienced a great deal of structural change since 1996, with a wholesale transformation of their funding model, drastically reduced revenue support from central government and ensuing loss of resource and capacity. Yet the cost of waste management has only increased, standing at over £5bn in 2023 (see figure 4). As well as being responsible for residential waste management, councils are also charged with

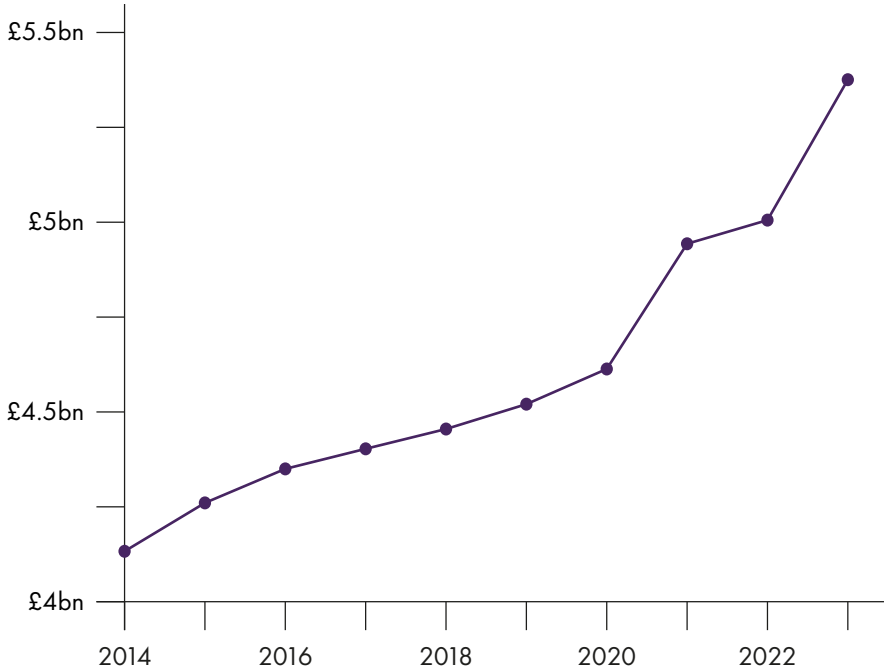
7 HM Revenue & Customs (2023) – Landfill Tax rates for 2023 to 2024

dealing with fly tipping on council land and its effects. The costs of systemic inefficiencies and unintended consequences of this policy, therefore, fall in large part on local authorities.

The role and resourcing of the local state must therefore be of paramount concern in the ongoing discussion of taxation and best environmental outcome – not just pertaining to the landfill tax but across the gamut of environmental policy. The landfill tax does come with obligations to contribute to community funding, which can offer significant benefits to areas in which landfill companies operate. However, the overall re-investment of tax receipts into local capacity and waste management innovation must be re-affirmed and doubled down upon in future iterations of the policy. As we move to evermore circular waste systems, the cost of managing these systems from end-to-end must be covered and consideration of how funds can be best invested into improving outcomes must be built into policies. This concerns not simply landfill tax, but also environmental tax policies like carbon pricing, which similarly impact the way waste is treated and recycled.

Figure 4. Local authority spend on waste management

England, 2014-2023



Source: DLUHC/LGInform

CHAPTER TWO

Unintended consequences and inefficiencies

Although successful in its primary goal of reducing waste to landfill, the shifting landscape of the last twenty years has led to an increase in unintended negative externalities and operational inefficiencies in landfill tax policy – most significantly, increases in waste crime. This section presents the issues of waste crime, tax evasion and fiscal inefficiency as they currently exist and suggests some potential reforms to alleviate the problems being caused.

Key points

Challenge	Summary	Potential reform
Waste crime	<p>Recent reductions in illegal waste sites have been overshadowed by a rise in waste crime, imposing notable clean-up costs on local authorities and landowners.</p> <p>The effectiveness of regulatory measures against waste crime is hampered by a lack of comprehensive data, enforcement challenges, and the involvement of organised crime groups, prompting calls for strategic overhaul and stronger enforcement.</p>	<p>Implement localised incentives for waste reduction and recycling programmes to decrease reliance on landfills and reduce the appeal of illegal dumping and fly-tipping.</p> <p>Enhance local authority powers to enforce waste regulations, including increased fines and penalties for fly-tipping, with revenues to support local clean-up efforts and landfill site development.</p> <p>As with health and safety policy, ensure that company directors are legally liable for the mismanagement of waste, tax fraud, and any subsequent harm caused.</p>

<p>Tax inefficiency</p>	<p>The landfill tax has not significantly reduced waste generation or altered consumer behaviour due to a mismatch between its theoretical deterrence and practical outcomes.</p> <p>The landfill tax exhibits inefficiencies such as a large tax gap – indicating evasion and avoidance, insufficient differentiation between waste types, and a growing gap between standard and lower rates – encouraging misclassification.</p>	<p>Implement variable tax rates based on the environmental impact of waste types to incentivise sustainable disposal choices.</p> <p>Introduce an intermediate tax band to bridge the gap between standard and lower rates, reducing the incentive for misclassification of waste and promoting fairer taxation.</p> <p>Increase transparency and efficiency in tax collection to combat high levels of tax evasion and avoidance, through stricter enforcement measures and improved monitoring technologies.</p>
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2.1 Waste crime

2.1.1 Escalation of waste crime

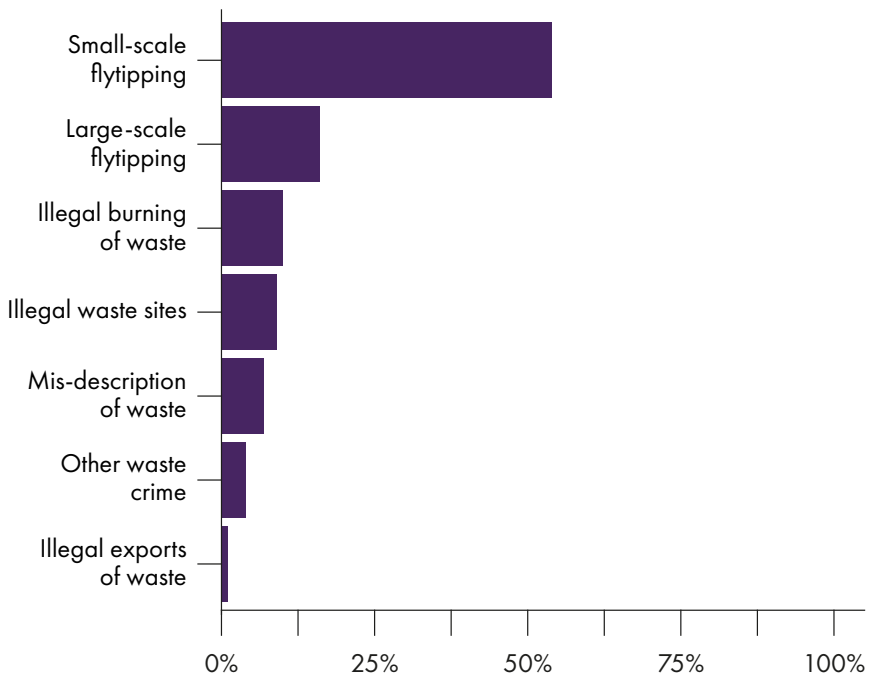
An unintended consequence of setting the landfill tax at a prohibitive level, with a large differential between the higher and lower rate, is the escalation of waste crime. Illegal dumping or fly tipping arises when individuals or businesses, faced with the financial burden of high landfill tax, opt to dispose of their waste unlawfully in public areas or on private land without permission. Fly-tipping, although a highly visible crime, is generally carried out by individuals or small traders and is just one part of the waste crime issue. Perhaps the most impactful form of waste crime is the misclassification of waste, or the operation of entirely illegal waste operations.

Such actions not only undermine the environmental goals of the landfill tax by causing harm to natural habitats and the social cohesion of local communities,

but also pose significant challenges for waste regulation enforcement. Heightened adherence and shifts in expected schedules during the COVID-19 pandemic have further aggravated issues related to waste crime⁸.

Figure 5. National Waste Crime Survey 2023

Types of crime reported by respondents



Source: Environment Agency

8 Dixon, Farrell & Tilley (2022) – Illegal waste fly-tipping in the Covid-19 pandemic: enhanced compliance, temporal displacement, and urban-rural variation

The persistence of waste crime across the country can be partially attributed to a regulatory environment that currently lacks the operational capacity to effectively hold company directors and leadership accountable for their waste management practices. This is exacerbated by low barriers to entry for waste management organisations, allowing for the proliferation of individuals and entities that do not prioritise responsible waste disposal. While the legal framework exists to penalise company directors for waste crimes, in practice, few cases are thoroughly investigated or prosecuted, and the penalties imposed often do not reflect the financial benefits gained from such illegal activity.

The funding structure of the Environment Agency, primarily supported by government grants, statutory charges, and levies, underscores a significant challenge in bridging the gap between regulatory mandates and the practical enforcement of waste crime. The Environment Agency's capacity to enforce waste disposal regulations effectively is inherently linked to its resources. This connection highlights a broader issue with environmental governance in the UK, where the enforcement of waste crime often lags behind regulatory frameworks due to limited operational capacities. This gap not only undermines the efforts to hold businesses accountable for their environmental impact but also exacerbates the disconnection between corporate activity and environmental consequences.

National Audit Office reporting⁹ underscores a pressing challenge in the pushback against waste crime, accentuated by a lack of comprehensive data and increasing incentives for criminal engagement. Despite efforts outlined in the 25 Year Environment Plan and the Resources and Waste Strategy by DEFRA, with the Environment Agency and the Joint Unit for Waste Crime at the helm, there's a noted discrepancy in the effectiveness of current measures. The reduction in illegal waste sites – which may itself be a function of reduced regulator oversight rather than a genuine decrease – is overshadowed by a surge in fly-tipping incidents, costing local authorities and land owners significantly for clean-up. The rise in landfill tax, aimed at reducing landfill usage, has paradoxically boosted the profitability of waste crime, with a significant estimated tax loss due to non-compliance.

9 National Audit Office (2022) – Investigation into government's actions to combat waste crime in England

The Environmental Services Agency has estimated that waste crime costs the economy in England about £1bn per year, a 55 percent increase since 2015¹⁰. The engagement of organised crime groups in waste crime further complicates enforcement efforts, which predominantly involve non-confrontational responses like advice and warning letters, all manifesting in a decline in prosecutions. However, the anticipated progress has been hampered by the pandemic, with consultation and evaluation of how to engage organised waste crime set to continue until 2027.

There are significant issues undermining the efficacy of regulatory measures. A prominent concern is the inconsistent application of sentencing guidelines – with a widely varying interpretation across the country leading to a high degree of variation in punishment for the same crime. This disparity not only undermines the deterrent effect of penalties but also highlights a critical failure in the system’s coherence. There is also a need for court fines to increase in alignment with fixed penalty notices to prevent an unintended incentive for offenders to opt for court trials over paying higher fixed penalty notices, illustrating a potential gap in the deterrent effect of the penalties as it stands – recent interventions by the government fail to account for this¹¹. Councils such as Buckinghamshire have taken upon themselves to make further increases to fixed penalty notices in order to strengthen the deterrent and encourage the avoidance of rogue waste carriers by residents¹². Furthermore, the sector grapples with rampant landfill tax fraud and evasion, driven by loopholes that savvy operators exploit, thereby creating an uneven playing field in the waste management sector.

This exploitation has catalysed illegal activities, significantly harming the integrity of the waste management industry. The current regulatory framework, as administered by the Environment Agency, SEPA and NRW, is perceived as ineffectual, with the agencies criticised for its lack of enforcement capability and for prioritising less challenging targets over more significant criminal activities.

10 Environment Agency (2021) – National waste crime survey report 2021: findings and analysis

11 Department for Environment, Food & Rural Affairs, Pow, & Coffey (2023) – Bigger fines possible for littering and fly-tipping

12 National Rural Crime Network – Tackling fly-tipping in Buckinghamshire

2.1.2 Strengthening enforcement capability and combatting tax evasion

The dissatisfaction with the regulator's effectiveness calls for a strategic overhaul that includes enhancing self-regulation and giving more teeth to relevant regulatory bodies. Recent changes in executive leadership at the Environment Agency signals a potential shift towards more robust regulatory enforcement. While regulatory reforms may materialise in the near term, the breadth of criminal investigations suggests a longer timeline for addressing the systemic issues of crime plaguing the waste management sector. This situation underscores the necessity for immediate and focused action to restore the regulatory framework's integrity, ensuring that it effectively combats crime and supports sustainability.

The government has made efforts to target waste criminals and combat illegal practices at waste sites. Established in 2020, the Joint Unit for Waste crime is a multi-agency taskforce collaborating to dismantle the criminal operations that exploit the waste industry. Despite the challenges posed by the COVID-19 pandemic, the JUWC's proactive enforcement actions have underscored the government's vigilant but short-term and after-the-fact approach to combatting waste crime. In February 2024, the Environment Agency (EA) and DEFRA launched a further measure to address organised waste crime with the creation of the Economic Crime Unit¹³ within the agency, which will seek to root out criminality via the financial mechanisms associated with tax avoidance and the proceeds of waste crime.

The government has acknowledged the strong partnership between HM Revenue & Customs (HMRC) and the EA in combatting landfill tax evasion. They share data and intelligence to identify and profile unauthorised sites and offenders. Despite this, HMRC's landfill tax compliance activities have been hampered by operational challenges, including the need for teams to be prepared for potentially hazardous unauthorised waste sites and disruptions caused by COVID-19 restrictions. HMRC still struggles to recover a meaningful

13 Environment Agency, Department for Environment, Food & Rural Affairs, & Moore (2024) – [Ensuring crime doesn't pay: New Economic Crime Unit to tackle money laundering and carry out financial investigations](#)

amount of money from waste criminals. Since 2018, any person or business disposing of waste at an unauthorised site has been liable for landfill tax, but HMRC has admitted to a low number of tax assessments and recovered funds in this area and the failure to prosecute a single relevant case¹⁴.

The UK government, recognising the ongoing problems with waste crime and landfill tax evasion, plans to review the current exemptions and discounts within the tax to see if they continue to support environmental objectives. This review will also consider the impact of potential changes to the tax on landfill tax fraud, evasion, and waste crime, as well as how these changes might interact with upcoming environmental regulatory reforms designed to improve compliance and tackle waste crime¹⁵. Moreover, then Environment Minister Rebecca Pow unveiled new reforms in February 2023, aimed at addressing these issues further¹⁶.

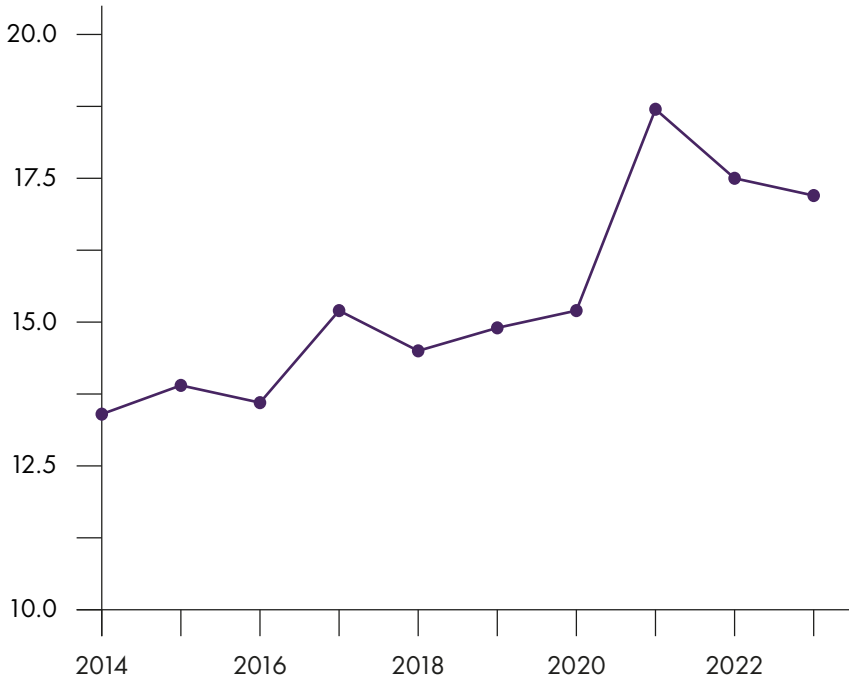
14 [McGlone \(2022\) – Waste criminals continue to avoid landfill tax despite new rules](#)

15 [Doherty \(2023\) – Treasury to ‘engage’ before taking next steps of landfill tax review](#)

16 [Department for Environmental, Food & Rural Affairs, Environment Agency, & Pow \(2023\) – Government moves ahead with plans to crack down on illegal waste](#)

Figure 6. Fly-tipping incidents per 1000 residents

Average among English single-tier and district councils, 2014-2023



Source: Defra/LGInform

While every £1 invested in tackling waste crime could yield on average £4.96 back into the legitimate economy, HMRC is recouping just a fraction of that through powers it gained four years ago to collect landfill tax disposed of at unauthorised sites. The government provided funding to HMRC for additional staff to enforce this but so far, HMRC has raised just 11 tax assessments, totalling around £17.8m, including penalties. In 2021/22, just £10m was specifically ringfenced by the Environment Agency to tackle waste crime,

figures that are a mere fraction of the minimum £1bn annual estimated costs of such illegal activity.

Current funding inconsistencies, with the Environment Agency receiving specific support unlike its partners, amidst broader budgetary constraints, further highlight the need for a more unified and adequately financed approach to tackle the complexities of waste crime effectively. In terms of tax, there is a delicate balance required in setting the tax rate; it must be sufficiently high to deter the landfilling of waste that can readily be either reused, recycled or recovered and encourage waste minimisation and recycling, yet not so high that it incentivises illegal waste disposal practices.

2.2 Tax inefficiency

For the year 2021, the tax gap for landfill tax was calculated at 22.7 percent or £200 million, indicating inefficiency in tax collection. While landfill tax rates have increased over the years, there has been a substantial decline in landfill tax receipts, nearly 50 percent in the last decade¹⁷. This decline is attributed to the development of recycling and recovery technology, including increased capacity for energy recovery, which has led to a diversion of waste from landfills. The tonnage data shows a downward trend in both standards and lower rate tonnage over the last ten years. Such a tax gap also suggests high levels of tax evasion and avoidance, typically occurring through misclassification of waste, underreporting of waste volumes, or, as mentioned, illegal dumping.

Moreover, the tax rates applied to the UK landfill tax do not differentiate between the disparate environmental and social costs associated with various types of waste and landfill sites. This one-size-fits-all approach fosters suboptimal disposal choices, contributing to both the underutilisation of landfill capacities and the increased adoption of alternative disposal methods that may, paradoxically, inflict equal or greater environmental harm. The simplicity and supposed fairness of a two-band system comes at the cost of economic distortions, including market fragmentation, and a decrease in tax revenues accordingly.

17 Emlinton (2022) – Treasury delays announcement of 2024/25 landfill tax rates

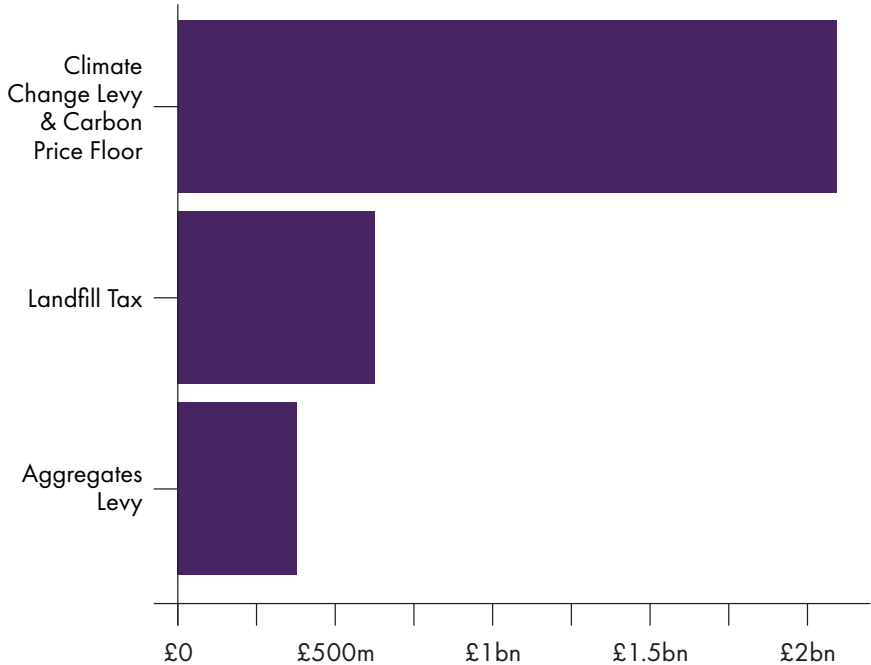
The absence of a middle band or further bands within the landfill tax system potentially undermines the tax's effectiveness in promoting sustainable waste management, offering a very basic price signal and reducing incentives for waste minimisation and recycling. By treating diverse types of waste too uniformly, the system potentially oversimplifies waste categories, thus failing to adequately reflect the environmental impacts of different waste types or incentivise more nuanced behaviour changes among waste producers.

Waste is not homogenous enough for two broad categories to be sufficient; by not differentiating between waste types of varying environmental impacts, the two tax bands oversimplify this complexity and fail to incentivise the separation and appropriate treatment of semi-polluting wastes— inadvertently encouraging further misclassification and other waste crimes also. This oversight hampers the progression towards a more circular economy by inadequately encouraging recycling and recovery efforts.

Another concern raised by the Chartered Institution of Wastes Management (CIWM) is the growing gap between the standard and lower rate of landfill tax. This gap has grown substantially since the tax's inception in 1996, leading to concerns about misclassification of waste to take advantage of the lower rate¹⁸. To address this, CIWM suggests either reducing the gap between the standard and lower rates or introducing a 'middle' rate for selected materials. The Environmental Services Association (ESA) also emphasises the importance of maintaining the differential between landfill and alternative treatment options, especially in the context of high inflation affecting costs at energy from waste (EfW) plants.

18 Einton (2022) – CIWM concerned by gap between standard and inert landfill tax rates

Figure 7. Environmental tax receipts in the UK, 2023



Source: HMRC

There is also significant untapped potential for more complete landfill tax revenues to be a catalyst for environmental innovation and infrastructure improvement. The substantial financial inflows derived from these taxes present a unique opportunity for governments to reinvest in the development and implementation of cutting-edge waste reduction and management technologies. By strategically allocating these funds, policymakers can enhance the efficacy of waste processing facilities, promote recycling, and incentivise the

adoption of more sustainable waste disposal practices among businesses and consumers alike. This approach not only aligns with broader environmental objectives, but also ensures that the economic burden imposed by landfill taxes is mitigated through tangible improvements in waste management systems. Such reinvestment strategies can serve as a cornerstone for a more circular economy, where waste is minimised, and resources are efficiently reused, ultimately contributing to the mitigation of environmental degradation and the promotion of sustainable development.

Despite expectations of a significant increase due to inflation, the landfill tax rates for 2024 only saw a modest rise. The standard rate increased from £102.10 per tonne to £103.70 per tonne, with the lower rate increasing from £3.25 to £3.30. This smaller-than-expected increase has led to concerns that it will not sufficiently incentivise the shift away from landfill use towards more environmentally friendly waste management solutions, further entrenching a longstanding inefficiency embedded with the landfill tax's current design and implementation. Additionally, the minimal increase, contextualised by an ongoing cost-of-living crisis, could potentially disadvantage the energy-from-waste sector by inadvertently making landfill seem more economically attractive in comparison.

A more nuanced system of tax banding could target waste materials with moderate environmental impacts, that nonetheless have circular economy potential. This banding would likely encompass mixed non-recyclable plastics, chemically treated wood, difficult to separate composite materials, certain textiles and carpets, specific construction debris, and non-hazardous industrial by-products. By judiciously setting the tax rate for a middle band, the system could incentivise more sustainable handling, recovery, or recycling of these materials, rather than being lumped with waste lacking in any further circular potential.

A government response to a call for evidence on landfill tax acknowledged that the lower rate could be raised to narrow the gap between the two rates. This indicates an awareness of the tax's inefficiencies in its current form within government and a willingness to consult with stakeholders for potential adjustment.

CHAPTER THREE

Understanding ecological impact

Making sense of what type of waste is landfilled and what type of waste should be landfilled – and how to reduce the discrepancy between the two – is crucial to designing a tax regime which works for modern Britain and allows for the continued transition to net zero and a circular economy. This section explains the issue of waste hierarchy and how it effects the ecological impact of current and former landfill sites.

Key points

Challenge	Summary	Potential reform
Ecological impact	Legacy chemicals in landfills demand reevaluation of landfill tax strategies to mitigate their long-term environmental and health impacts.	<p>Introduce differential taxation based on the ecological impact of landfills, incentivising smaller, more environmentally responsible operations.</p> <p>Allocate a portion of landfill tax revenues toward targeted initiatives for legacy chemical cleanup, prioritising areas with significant environmental and health risks.</p>
Waste hierarchy	<p>The landfill tax, by classifying waste into active and inactive categories, inadvertently promotes practices contrary to the waste hierarchy's goal of prioritising recovery, reuse, or recycling, leading to environmental sustainability issues.</p> <p>The misalignment between the Treasury's landfill tax classification and DEFRA's waste hierarchy methodology results in conflicting economic and environmental objectives.</p>	<p>Implement an environmentally responsible landfill tax system where standard (higher) rate tax is applied only to materials that could have otherwise been recovered, recycled or re-used.</p> <p>Allocate a portion of landfill tax revenues to fund research and development aimed at advancing technologies for waste recovery, reuse, and recycling.</p>

3.1 Ecological impact

The utilisation of landfills for waste disposal presents significant ecological challenges, underscoring a broader spectrum of environmental and land use concerns beyond mere rubbish accumulation. The release of pollutants from unlined landfills into the environment is a paramount concern. Unlined landfill sites can contaminate nearby water sources by uncontained leachate seeping through the groundwater below. The generation of leachate, a liquid that results from the decomposition of waste materials, is particularly responsible for such a risk. Moreover, landfills continue to be a significant source of greenhouse gases, particularly methane, which is a potent contributor to climate change.

The further pressing issue of legacy chemicals within landfills, notably polychlorinated biphenyls (PCBs) and per/polyfluorinated substances (PFAS), colloquially known as 'forever chemicals', presents an escalating environmental impact. These substances, once commonly used in numerous applications and disposed of in landfills for decades, are now recognised for their enduring environmental and health impacts due to advances in scientific understanding. This realisation necessitates a re-evaluation of the landfill tax and its potential redirection towards mitigating the long-term consequences of such legacy landfills and chemicals. The concern is that public awareness of this issue could lead to significant short-term financial implications for stakeholders, amid growing demands for more factual and responsible reporting on the matter. The situation underscores the need for additional funding and a strategic approach to manage the legacy of chemical contamination, ensuring landfill sites are treated responsibly to safeguard public health and the environment.

There is also potential for allocations of landfill tax revenue to contribute to the regeneration and repurposing of sites formerly used for landfills. Restored landfill sites present a unique opportunity for biodiversity enhancement. This is demonstrated by the Tatchells landfill site in Dorset, which has now become a haven for a variety of priority species through active management and habitat improvement, illustrating the potential of restored landfill sites to contribute to wildlife conservation and habitat restoration¹⁹. The landfill tax must be realigned to effectively support this purposeful transition.

19 Get Nature Positive – Tatchells landfill site

3.2 Waste hierarchy

In 2011, principles of waste hierarchy were formally introduced into UK legislation through the Waste Regulations Act. These regulations transposed the European Union's Waste Framework directive into law. This framework established waste hierarchy as a priority order in waste prevention and management legislation across the EU, including the UK. The Waste Regulations 2011 Act requires that all businesses and organisations in England and Wales that produce or handle waste follow the waste hierarchy's five steps to: 1.) prevent waste, 2.) prepare for reuse, 3.) recycle, 4.) recover other value (e.g. energy), and 5.) dispose (as a last resort). The regulations also introduced the requirement for waste producers to confirm that they have applied the waste hierarchy when transferring waste to another party.

The underlying logic of the waste hierarchy in the context of landfill is to systematically reduce the reliance on landfills for waste management. By prioritising more sustainable means, the waste hierarchy aims to conserve resources, reduce pollution, and mitigate the adverse effects of waste disposal, aligning with principles of sustainable development and circular economy, where the goal is to keep materials in use for as long as possible and minimise waste generation.

However, the current classification of waste into active and inactive categories, as dictated by the UK's landfill tax legislation, has inadvertently fostered practices that are at odds with the waste hierarchy's core objective of achieving best overall environmental outcome²⁰. This dichotomy in classification results in a scenario where certain wastes, eligible for disposal at a lower tax rate, bypass the hierarchy's preferred options of recovery, reuse, or recycling due to the economic allure of cheaper disposal options. This system undermines the economic incentives necessary to encourage the adherence to waste hierarchy principles, thereby compromising environmental sustainability goals.

The discrepancy between the landfill tax's classification system, overseen by the Treasury, and the classification methodology employed by DEFRA further

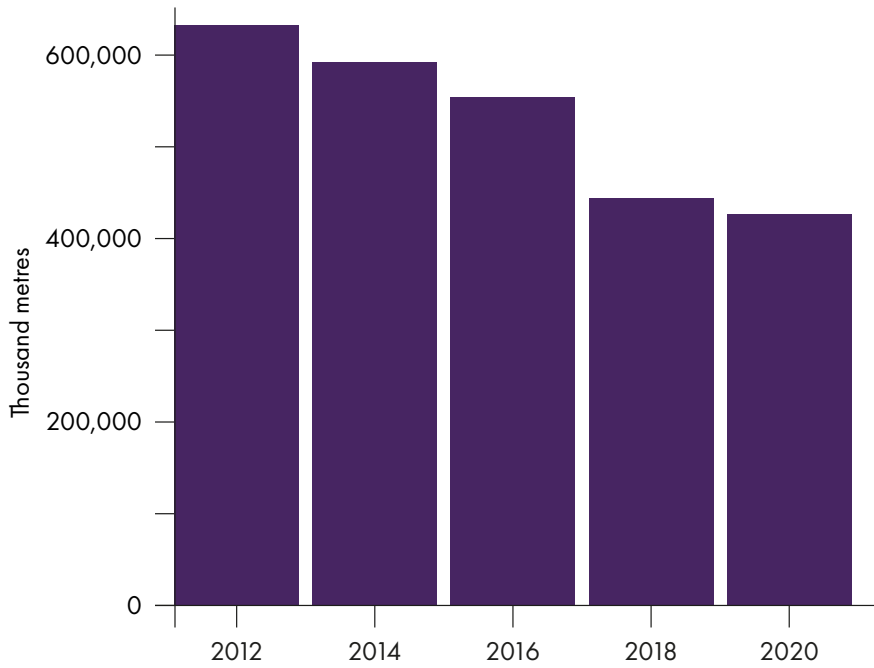
20 Milios & Dalhammar (2020) – Ascending the waste hierarchy: Re-use potential in Swedish recycling centres

exacerbates this issue. Such misalignment results in perverse outcomes, where the economic and environmental objectives of waste management results in a clash of rival departmental objectives.

To realise this transition, a concerted policy overhaul is imperative. Policymakers, both centrally and locally, must undertake efforts to redefine waste management practices and properly differentiate between materials that can only be landfilled and those which can be disposed of in other ways, ensuring they are conducive to the dual objectives of economic viability and environmental sustainability. Only through such comprehensive policy reform can the country's waste management strategy be realigned with the principles of waste hierarchy, thereby fostering a system that truly promotes the Best Overall Environmental Outcome.

In the context of addressing the escalating issue of waste, it becomes apparent that current measures, such as imposing taxes at the terminal stages of the supply chain, may perhaps not yield the desired impact on waste reduction. A more strategic intervention would involve the implementation of taxes at an earlier stage, akin to those leveraged on plastic packaging, to instigate a more significant behavioural shift amongst producers and consumers alike. Reforms to landfill tax should be one piece of a greater agenda for environmental tax reforms that is rooted in principles of behavioural science, circular economics, and waste hierarchy—a *proactive* rather than *reactive* approach.

Figure 8. UK total landfill capacity



Source: DEFRA

CHAPTER FOUR

International examples

As well as our own challenges in implementation, lessons for the landfill tax can be taken from abroad. This section looks at three case study nations and their landfill tax regime, providing some possible learning for policymakers in the UK.

4.1 Europe

There are commonalities across European countries in how they approach landfill tax policy and practice, all aiming to foster a more environmentally sustainable waste management system within their respective jurisdictions. Above all else, landfill tax is widely implemented across EU member states, agreeing that it serves as a deterrent against landfilling and encourages alternatives like recycling and waste reduction. Tax rates, however, exhibit notable variation among countries, reflecting individual national policies and environmental goals; for instance, Belgium imposes a tax of over €100/t, whereas Lithuania starts at a much lower rate of €5/t.

Despite rate differences, there is a growing trend of planned tax increases, indicating a collective effort to further discourage landfill use as part of a broader agenda of mitigating environmental impacts. Many EU countries also enforce specific restrictions on landfilling certain types of waste, often in line with broader EU directives, though the details and strictness of these restrictions can differ. Overall, these landfill policies and taxes demonstrate a unified commitment to environmental sustainability within Europe, aligning with EU-wide directives to manage waste in an eco-friendly manner.

4.1.1 Austria

The overarching principles of Austrian environmental law include the preservation of the natural environment (water, air, and soil), the precautionary principle, the “polluter pays” principle, and the principles of amelioration and no deterioration of environmental elements²¹. Austrian environmental policy and law are characterised by a distribution of competences between the federal government and the nine provinces, leading to a situation where some policies are decided at the federal level and others at the provincial level. This distribution has prevented the codification of environmental law, resulting in a scattering of regulations across numerous federal and provincial legal acts.

Introduced in 1989, the Austrian landfill tax, known as the ‘Altlastensanierungsbeitrag’ (‘ALSAG’) or ‘contaminated site contribution’,

21 Ettliger & Bapasola (2022) – Landfill tax, incineration tax and landfill ban in Austria

was implemented to fund the clean-up of contaminated land and landfill sites. Unique in its structure, this tax is solely dedicated to remediation activities and identification of problem sites, with revenues amounting to approximately €1.2bn up to 2014²². The landfill operators pay a tax based on the tonnages deposited, and the rates vary depending on the type of landfill, encouraging the diversion of waste from landfills to more environmentally friendly methods. The landfill tax has undergone several amendments over the years, including rate increases and the introduction of an incineration tax in 2006. The Landfill Ordinance of 1996 further strengthened this approach by setting technological standards for landfills and introducing a landfill ban on waste with total organic carbon (TOC) content over 5 percent, effectively banning most municipal solid waste from landfills without pre-treatment.

Austria's approach to landfill tax is particularly effective and innovative for several reasons. Firstly, the tax directly funds the remediation of contaminated sites, linking waste management with environmental clean-up in a financially sustainable way. This unique earmarking of funds ensures a dedicated revenue stream for environmental restoration, making it a standout example in the EU. While Austria's landfill tax policy aligns with EU directives, it also integrates local innovation. This aspect of the policy involves tailoring strategies to suit national circumstances and objectives, demonstrating a nuanced understanding of waste management challenges specific to Austria.

The result is a policy that not only complies with broader EU regulations but also adapts and innovates to meet local needs. Secondly, the tax structure incentivises waste diversion away from landfills by differentiating rates based on waste type and landfill technology. This has led to a significant shift in waste management practices, with a marked decrease in landfilling and a rise in recycling, composting, and waste incineration. Finally, the implementation of the landfill ban on certain types of waste, complemented by the tax system, has catalysed advancements in waste treatment technologies and practices. The combined effect of these measures has not only reduced the environmental impact of landfills but also fostered a more sustainable and circular approach to waste management in Austria.

Complemented by the EU Landfill Directive, the Austrian landfill tax has also effectively reduced the environmental impact of historic and previously active landfills by promoting better transitional waste management practices and the implementation of advanced landfill aftercare. This approach includes the installation of final covers to minimise emissions, as demonstrated in a case study of the Breitenau landfill²³.

4.1.2 Netherlands

The landfill tax policy in the Netherlands, known as “afvalstoffenbelasting,” plays a crucial role in the country’s waste management and environmental strategies²⁴. Introduced in 1995, this policy features a differentiated tax rate system based on waste types, aiming to reduce landfill use and promoting recycling and energy-from-waste (EfW) processes. Combustible and recyclable waste is taxed at a higher rate of €107.49 per tonne, while non-combustible wastes incurs a lower tax of €16.79 per tonne²⁵. The Netherlands tax does not distinguish between hazardous and non-hazardous waste via tax bands. This structure is designed to incentivise the reduction of waste sent to landfills and encourage more sustainable waste management methods.

Additionally, as of 2016, a general waste disposal charge of €13.07 per 1000kg was implemented, applicable to both landfilled and incinerated waste. However, there are exemptions to these charges, notably for recycled waste, the dumping of dredging spoils, and the burning of sewage sludge, intended to promote environmentally friendly practices. However, incineration capacity and further environmental concerns have pushed the country to explore other solutions, including the export of sewage sludge to countries like the UK, where it is used as a fertiliser, under strict regulations to ensure it is treated properly before being spread on farmland but has nonetheless raised toxicity concerns of its own²⁶.

23 Mavropoulos (2011) – Impact of landfill caps on leachate emissions: An Austrian case study

24 Netherlands Enterprise Agency, RVO – Landfill tax (waste disposal tax)

25 Yow (2013) – Landfill taxation policy in the Netherlands

26 Pollet (2020) – UK imports tonnes of Dutch sewage sludge ‘for agricultural benefit’ sparking toxicity concerns

The impact of the Netherlands' landfill tax on waste management has been notable. The policy has led to a substantial reduction in the amount of municipal solid waste (MSW) landfill. Following the introduction of the tax and its subsequent increases over the years, including a notable rise in 2010 that positioned it as the highest landfill tax in Europe at the time, the country has made remarkable progress towards a circular economy.

However, a critical issue did emerge from these policies, the development of an overcapacity in EfW facilities. The incentivisation for EfW was so effective, so quickly that it led to the construction of more EfW plants than necessary for the country's own waste. As a result, to better utilise this excess capacity, the Netherlands began importing waste from other countries, including the UK. This situation is somewhat paradoxical, as it both solves a problem by utilising excess EfW capacity and creates a new issue by encouraging the international transport of waste, which has its own environmental footprint.

Moreover, this scenario can work to the benefit of local authorities in the UK, as waste exported for EfW in the Netherlands counts towards their recovery targets. This effectively allows authorities to report better waste management statistics without actually reducing or recycling waste domestically, which is ultimately unsustainable were the exporting of waste to become more expensive or stringently regulated.

Presently, only about 2 percent of waste in the Netherlands ends up in landfills, while a remarkable 81 percent is recycled, and 17 percent is incinerated²⁷. This shift in waste management, driven by the landfill tax, highlights the effectiveness of this fiscal measure in steering environmental policy and promoting sustainable practice. However, differences in the interpretation of 'recycling' metrics between the Netherlands and the UK raises important considerations for evaluating the true effectiveness of such policies.

27 Van de Sande (2018) – Landfill tax in the Netherlands

4.2 Rest of world

4.2.1 New Zealand

The New Zealand government's approach to landfill tax policy and practice is encapsulated in the 'waste disposal levy', a key component of their Waste Minimisation Act 2008²⁸. This levy is designed with a dual purpose: firstly, to generate funds for waste minimisation initiatives, and secondly, to acknowledge and address the environmental, societal, and economic costs incurred by waste disposal. The levy acts as a financial incentive, encouraging both individuals and organisations to assume responsibility for their waste and to seek more sustainable methods of waste management, such as reducing, reusing, recycling, or reprocessing.

Financially, the levy is structured to allocate half of its proceeds to territorial authorities, like city and district councils. These funds are earmarked for activities that promote or achieve waste minimisation as outlined in their respective waste management and minimisation plans. The remaining portion of the levy, after deducting administration costs, is directed into the centralised Waste Minimisation Fund. In terms of administration, the levy's revenue is also used to cover various associated costs. These include administering the Waste Minimisation Fund, collecting the levy, distributing funds to local authorities, monitoring related activities, and managing offences and enforcement actions. The allocation for these administration costs is decided by the Cabinet as part of the Ministry for the Environment's budget appropriation.

Regarding hazardous waste, the disposal practices and options can vary across different regions and councils in New Zealand. A survey conducted across 67 city and district councils revealed that two-thirds of them accept hazardous substances from municipal waste year-round at landfills, recycle centres, or waste transfer stations²⁹. Some councils offer restricted collection or hold regular collection events for hazardous waste. However, there is a notable variation in the level of service provided by different authorities, with some not offering any

28 Ministry for the Environment (2022) – [Overview of the waste disposal levy](#)

29 Wannan (2019) – [Hazardous waste: A guide to disposal](#)

services. The survey also highlighted that hazard chemicals require treatment by specialist companies before safe disposal, which can be a costly process.

The levy rates vary based on the class of the landfill. Class 1 municipal landfills accept a broad range of waste types, equipped to handle the diverse waste streams generated by urban and residential areas, and currently incur a charge of \$20 per tonne, with plans to increase this rate progressively to \$60 per tonne by July 2024. For Class 2 construction and demolition fills, facilities specifically catered to waste generated from these respective activities, the levy is also set at \$20 per tonne as of July 2022, rising to \$30 per tonne by July 2024.

Meanwhile, Class 3/4 covers managed and controlled fills, those accepting a more specialised type of waste, typically more inert waste materials that do not tend to pose

a heightened risk to water or air quality, are levied at \$10 per tonne. Some facilities like industrial monofill sites dealing with hazardous wastes, while not subjected to the levy, are still required to report their tonnages to the Ministry. There is no specification within the banding guidelines specifically for hazardous municipal waste management, with the aforementioned local discretion creating a disjointed system for hazardous waste.

Although far from a perfect system, New Zealand's approach stands out for its innovative, multi-tiered approach to landfill tax policy and practice. Its progressive structure, with varying and increasing rates for different landfill classes, incentivises swift adaptation to sustainable practices. The policy effectively uses the revenue, dividing it between local authorities for waste minimisation projects and a centralised waste minimisation fund, ensuring targeted and impactful expenditure. The approach highlights New Zealand's commitment to environmental sustainability and long-term ecological goals, implied by its scalability and commitment to do so progressively.

4.3 Learning from abroad

For the UK, these international experiences offer several lessons. First, the effectiveness of a landfill tax hinges on its structure and the clarity of its environmental objectives. A differentiated tax rate, based on waste types and disposal methods, could better incentivise the diversion of waste from landfills to more sustainable options such as recycling, composting, or incineration with energy recovery (waste-to-energy).

Second, earmarking landfill tax revenues for environmental projects, as seen in Austria and New Zealand, can ensure a direct and tangible impact on waste reduction and environmental restoration. This strategy could enhance the public and stakeholder support for the tax by demonstrating its benefits in improving local environments and contributing to a circular economy. In the UK context, this could also serve to regenerate and sanitise closed and problem sites, if approached strategically and in collaboration with key waste management stakeholders.

Moreover, integrating landfill tax within a broader environmental policy framework, as exemplified by these international examples, could maximise their effectiveness. This includes linking the tax to wider waste management and recycling strategies, setting ambitious recycling targets, and investing waste processing infrastructure. The UK could also explore the potential of using landfill tax revenues to pay remedial costs to local authorities and communities most affected by the worst of landfills or other areas of brownfield that have been impacted by historic industrial activity, as well as funding further innovation in waste treatment technologies and practices, thereby fostering a more just, sustainable, and circular approach to landfill taxation and broader waste management.

In the UK, the implementation of 'Best Available Technique' (BAT) is crucial in setting high technological and operational standards for waste treatment facilities, akin to those found within these international examples. However, there are several practical challenges with BAT implementation, including the complexities of adapting to continuously evolving environmental standards, the economic and technical feasibility of compliance, and the need for a transparent, collaborative approach in the development and updating of BAT reference documents. The transition to a UK-specific framework post-Brexit adds another layer of complexity. Learning from these challenges and the international examples mentioned prior highlights the importance of a flexible, adaptive regulatory approach that accommodates technological advancements whilst facilitating the capacity for BAT to be implemented in practice.

Lastly, business awareness and participation can be pivotal across these examples in achieving widespread acceptance and compliance with a reformed

landfill tax and other relevant environmental policies. However, though the public is responsible for segregating their waste according to the guidelines set, it is ultimately local authorities that dictate the specifics of waste segregation, collection, and processing. While public participation in waste segregation is necessary and can be fruitful, the effectiveness of these efforts is largely contingent upon the policies and practices of local authorities—with the reform of systemic and regulatory frameworks a key priority to this end.

Moreover, providing businesses with simple and efficient means to sort and segregate waste before collection is crucial as businesses generate a substantial amount of waste, and their practices can significantly influence the overall effectiveness of recycling, reuse, and recovery effort. Therefore, ensuring businesses are equipped and incentivised to manage their waste responsibly is crucial to prevent the contamination of waste streams, rendering recyclable or recoverable materials unsuitable for processing. This issue underscores the importance of conscious and effective waste segregation at the source, both in households and, importantly, within businesses.

By fostering a culture of inclusive sustainability and responsible waste management across local authority departments and among the public and businesses alike, the UK can enhance the effectiveness of the tax and add helpful nuance to its design and implementation, informed by stakeholder input.

CHAPTER FIVE

Recommendations

Reform of the landfill tax should seek to incorporate the waste hierarchy to ensure only the right waste materials end up in landfill, by implementing variable tax rates or other policy mechanisms based on the environmental impact of waste types and necessity of landfill, to incentivise sustainable disposal choices for non-hazardous and biodegradable waste.

- As a means to this end, government should **introduce an intermediate tax band to bridge the gap between standard and lower rates**, reducing the incentive for misclassification of waste and promoting fairer taxation.
- There is also a need to **allocate a portion of landfill tax revenues to fund research and development** aimed at advancing technologies for waste recovery, reuse, and recycling, as well as for legacy chemical cleanup, and to **allocate a portion to funding the prevention of waste crime**.
- The Environment Agency needs **an expanded budget, and associated targets, for prosecuting waste criminals**, with on-the-ground enforcement necessary to match recent increases in attention to the financial aspect of waste crime.
- Government must **enhance local authority powers to enforce waste regulations**, including increased fines and penalties for fly-tipping, with revenues to support local clean-up efforts and landfill site development. Councils must also be given the responsibility – with associated funding – to assist private landowners who are the victims of flytipping in safe, responsible disposal.
- Building on positive recent steps, government must continue to **increase transparency and efficiency in tax collection** to combat high levels of tax evasion and avoidance, possibly through stricter enforcement measures and improved monitoring technologies.



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