# Climate Finance for Zero Waste and Just Transition

Driving Implementation towards Equitable and Just Solutions in the Waste Sector

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# Executive Summary

The waste sector is one of the world's most powerful but overlooked levers for climate action and social justice. It contributes **nearly 20 percent of global methane emissions,** yet received **less than 1.5 percent of climate finance in 2023** (Climate Policy Initiative [CPI], 2025a, p. 4). Ninety-nine percent of it goes to waste-to-energy (WTE) projects and only 1 percent dedicated to organic waste management (Climate Policy Initiative [CPI], 2023a, p. 16). International climate finance for waste management is also primarily supported by private finance and using debt-inducing instruments (CPI, 2025a, p. 22).

Multilateral Development Banks (MDBs) dominate international public finance for waste management. The World Bank Group alone has provided about US$5.1 billion to the waste sector between 2003 and 2021. This is 35 percent of all official development finance, the rest are contributed by the Asian Development Bank, European Union institutions, and Germany (World Bank Group, 2025). Yet the combined investment from all these institutions remains a fraction of what is needed for adequate waste infrastructure. This concentration of finance is also being delivered to the wrong places, squandering the fastest methane reduction opportunity while entrenching inequity, rewarding capital-intensive, polluting projects, and sidelining the workers and communities already delivering real climate results.

At ***The Implementation COP*** **in Belém**, the world faces a defining test. COP30 must prove that climate finance can drive both **rapid mitigation** and tangible improvements in people's lives. For the waste sector, this means redirecting finance toward zero waste solutions and Just Transition that create jobs, improve health, and strengthen local economies. Investing in waste pickers, informal workers, and communities is not charity; it is a multiplier strategy that brings millions of workers into the climate system, where small investments yield disproportionate and sustained impacts. This approach will aid us to achieve our climate target and build service-based systems that leave no one behind.

# Community-based Zero Waste Solutions to Reduce Methane: Proven, Cost-Effective, and Justice-Centered

Zero waste systems — prevention, reuse, source separation, composting, and recycling — are **finance-ready and shovel-ready**. If implemented at scale, they could **cut solid waste methane emissions by up to 95 percent** (GAIA, 2022). Community and waste picker groups, often in partnerships with local governments, have successfully implemented zero waste solutions and deliver massive co-benefits around the world:

### Job creation

Up to 200 times more employment per tonne of waste managed than incineration or landfilling.

### Adaptation and resilience

Composting restores soil fertility, strengthens food security, and reduces fertilizer dependence.

### Equity

lintegrating waste pickers and informal workers formalizes millions of livelihoods and creates dignified green jobs.

### Public health

Cleaner cities and reduced open burning improve health outcomes.

### Food and soil security

Composting restores soils and supports agroecology, reducing dependence on synthetic fertilizers.

### Resilience

Decentralized systems strengthen local economies and adaptation to climate shocks.


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Implementing community-based zero waste solutions embody **environmental justice principles**, proving that **climate action and human development can advance together** (Global Alliance for Incinerator Alternatives [GAIA], 2023). It also creates a pathway for transitioning away from fossil and extractive economy models. By upskilling informal workers in source separation and composting, they help societies transition away from extractive fossil fuel economies built on petrochemicals —plastic and synthetic fertilizers— toward regenerative economies that return nutrients to the soil and improve life qualities.

# The Problem: A Flawed Financial Architecture

The failure to finance zero waste is not due to lack of evidence — it is the result of a **misaligned financial architecture.** Current systems reward capital-intensive and profit-driven infrastructure that are often perceived as low-risk, while neglecting the labor-intensive, service-based[1] systems that actually deliver results. To correct this, finance for the waste sector should be:

**New and Additional,** recognizing plastics and methane as new global challenges requiring dedicated resources.

**Adequate and Predictable,** scaled to meet the need for NDC 3.0 delivery.

**Debt-Sensitive and Grant-First,** avoiding debt traps that burden Global South cities.

**Dedicated and Accessible,** ensuring direct finance for local governments, waste picker cooperatives and groups, small and medium enterprises, and community groups.

**Supported by Fiscal and Incentive Reform,** ensuring that national and international finance systems help make zero waste operationally sustainable, redirecting subsidies and fiscal incentives away from fossil-based and polluting technologies to unlock significant domestic resources. Technical assistance for fiscal reform can help cities cover operation cost needs and reduce long-term dependency on external grants.

**In line with the Waste Hierarchy,** climate finance should prioritize prevention, reuse, and composting while excluding false solutions such as plastic-to-fuel, chemical recycling, WTE incineration, and refuse-derived fuel (RDF), and avoid end-of-pipe projects like landfill gas (LFG) capture that incentivize continued landfilling of organics.

## Redirecting finance toward zero waste is not merely a climate imperative — it is a justice imperative.

Current systems favor high-emission projects and widen inequality, expecting developing countries to mitigate without means and workers to adapt without protection. Finance must flow from developed to developing countries in line with **Common But Differentiated Responsibilities (CBDR),** while ensuring Global South governments and communities retain decision-making power.

[1] Service-based in this document refers to funding mechanisms that sustain ongoing public services (health, education, waste management) rather than one-off infrastructure projects. This acknowledges waste management as an essential public service, where governments provide public services that benefit all city residents by protecting public health and the environment, such as universal waste collection, waste treatment, recycling, and disposal of waste. Therefore, profitability is not the primary driver in developing waste management systems as a public service.

# The Opportunity: Implementation and Justice Together

Reorienting climate finance toward **zero waste** and a **Just Transition** would show that climate mitigation and justice are not competing priorities, but mutually reinforcing imperatives. Implementing **community-based zero waste systems** enables rapid methane cuts, job creation, and local resilience.

At **COP30**, climate finance must be reoriented to deliver both **implementation and justice**, closing the ambition-to-action gap and building durable pathways toward an equitable climate future.

Financing these strategies enables us to pull the climate emergency brake and advance a Just Transition by:

- Delivering the fastest methane reductions before 2030;
- Creating millions of dignified green jobs;
- Strengthening local economies and resilience;
- Ensuring that climate finance supports those already leading the transition, particularly local community groups, informal waste workers, and waste pickers.

In this context, the proposal for a **Belém Action Mechanism (BAM)** represents one possible pathway to make implementation and justice move together. Rather than a single institutional demand, BAM signals the type of governance reform needed across the UNFCCC system: a mechanism that aligns fragmented Just Transition efforts, channels predictable and grant-based resources to local actors, embeds social safeguards to protect waste pickers and informal workers, and builds bridges between global finance and local implementation capacity.

**This is not a one-time reform — it is the enduring litmus test for the integrity of climate action itself.** The same test must apply beyond Belém, to every mitigation, adaptation, and Just Transition initiative that follows: whether finance reaches the people and systems delivering real transformation on the ground. **If COP30 succeeds in making finance flow to the people and systems closest to the ground, Belém will be remembered as the COP of Justice** — the moment when the promise of climate finance was fulfilled, and equitable, community-driven implementation became the global standard.

# A Global Context on Climate Finance in the Waste Sector

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# 1.1 The Global Landscape of Climate Finance for the Waste Sector

The waste sector is one of the world's largest untapped opportunities for climate action. Although it is responsible for nearly 20 percent of global methane emissions, mostly from the decomposition of organic waste in dumpsites and landfills, it received only US$29 billion of climate finance in 2023—less than 1.5 percent of all climate finance tracked for that year (CPI, 2025a, p. 4).[2] This reflects a broader shortfall in funding for super pollutants like methane—despite being responsible for roughly half of global warming, they are not receiving anything close to half of the funding required.

In 2021/22, methane abatement finance totaled US$13.7 billion, with the waste sector receiving US$6.1 billion—45 percent of the total (CPI, 2023, p. 9). Out of this US$6.1 billion, 67 percent (US$4.1 billion) went to solid waste and the rest went to wastewater. Ninety-four percent of the solid waste funds goes to WTE incineration (US$3.86 billion), with 5 percent flowing to LFG capture and anaerobic digestion, and just 1 percent (US$ 22 million) dedicated to organic waste management.

By 2030, the annual finance needed for solid waste methane abatement is estimated at US$12 billion, rising to US$23.4 billion by 2050[3] (CPI, 2023, p. 15).

In contrast, organic waste management received just US$22 million in 2021/22—equivalent to only 0.18 percent of the 2030 estimated finance need and 0.09 percent of the 2050 estimated need—underscoring how critically underfunded methane abatement remains within the sector (CPI, 2023c, p. 16).

While public budgets remain the backbone of waste management funding, mitigation finance flows in the sector increasingly depend on private and international sources. In 2023, international finance accounted for 46 percent of total

[2] Only US$29 billion flowed to the waste sector from all climate finance, amounting US$1.9 trillion, tracked by CPI in 2023.
[3] 2030 and 2050 needs under a 2°C warming scenario were linearly interpolated from 2019/20 tracked levels to calculate average annual investment needs.

## Chronic Underfunding: Amount of Climate Finance for Organic Waste Management

Organic waste management only receives **0.00116%** of the total climate finance

*(US$ 22 million out of US$ 1.8 trillion)*

**US$1.9 trillion**
Total Climate Finance

**US$29 billion**
Climate Finance for the waste sector

**US$13.7 billion**
Total methane abatement finance

**US$6.1 billion**
Methane abatement finance for the waste sector
(including solid waste and waste water sub-sector)

**US$4.1 billion**
Methane abatement finance
for the solid waste sub-sector

WTE incineration
**US$3.86 billion (94%)**

LFG capture and anaerobic digestion
**US$223 million (5%)**

Organic waste management
**US$22 million (1%)**

*Climate Finance and waste sector data is from 2023 (CPI, 2025a), while the rest of the numbers are from 2021/2022 (CPI, 2023).

mitigation finance in the waste sector—94 percent of which originated from private actors (CPI, 2025a, p. 21). Nearly all mitigation investments (99 percent) were delivered through project-level debt instruments, primarily in the form of bonds, with negligible equity or concessional components (CPI, 2025a, p. 22). Moreover, the methane abatement finance in 2021/22, directed for WTE incineration projects, was largely funded by the private sector[4] (CPI, 2023, p. 16). These figures reflect capital investment flows rather than operational expenditures[5] typically covered by municipal budgets.

[4] Private investment drove waste-to-energy incineration, accounting for 77 percent of flows, with China, the UAE, and the UK receiving over 70 percent of total financing in 2021/2022.
[5] CPI tracks capital investment flows (CAPEX) in climate-related projects and assets, not operational expenditures (OPEX) typically covered by municipal or public service budgets.

Concessional and non-concessional international finance for the waste sector remain far below the levels required. Between 2003 and 2021, Official Development Finance (ODF)[6] was directed to solid waste management which increased eightfold—from about US$216 million to US$1.8 billion—yet this represents only 0.41 percent of total global development finance. The majority of this support was delivered through loans, roughly half of which were non-concessional, highlighting the limited availability of affordable capital for developing economies. Low-income countries, where waste systems are weakest, received only 8 percent of total flows. On the other hand, most funding went to middle-income economies that arguably generate more waste. Moreover, infrastructure projects are mostly backed by large multilateral lenders (Lerpiniere, Wilson, & Velis, 2025).

The World Bank Group presents itself as the largest source of international public finance for solid waste management, channeling about US$5.13 billion between 2003 and 2021—roughly 35 percent of all official development finance (ODF) to the sector. This is followed by the Asian Development Bank (ADB) that contributed US$1.93 billion[7], European Union institutions at US$ 1.65 billion, and Germany at US$ 1.23 billion (World Bank Group, 2025). This concentration of financial power underscores the outsized influence of multilateral banks in shaping waste agendas globally.


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The combined investment from all these institutions remains a fraction of what is needed as the Organization for Economic Co-operation and Development (OECD) estimated that we need at least €25 billion per year[8] for building the basic waste management infrastructure in low and middle-income countries (OECD, 2022).

Moreover, the bulk of existing funding has been directed toward countries with stronger credit ratings, reinforcing structural inequities that leave low-income countries under-financed and locked out of decision-making power.

[6] Official Development Assistance (ODA) is concessional government aid to promote the economic development and welfare of developing countries, while Official Development Finance (ODF) covers all official flows for development purposes, including both concessional (ODA) and non-concessional funds.
[7] Another report by ADB stated a higher number at US$2.055 billion between 2000–2020 (Premakumara, 2022, p. 5)
[8] €25 billion is approximately equivalent to US$27–28 billion per year, based on the average 2021–2022 exchange rate of 1 EUR = 1.09–1.12 USD. This conversion is provided for comparison purposes only.

## Table 1. Recap of Global Climate and Development Finance Flows and the Share Reaching the Waste Sector

| Category | Total Finance (US$ billion) | Finance to Waste Sector (US$ billion) | Share of Total | Finance to Organic Waste Management (US$ million) | Key Sources |
|---|---|---|---|---|---|
| **ODF, 2003–2021** | 439,000 [i] | 1.8 [ii] | 0.41 % | n/a | Lerpiniere et al., 2025 |
| **Total Climate Finance, 2023** | 1,900 [iii] | 29 [iv] | 1.5 % | n/a | CPI, 2025a |
| **Total Methane Abatement Finance, 2021/22** | 13.7 [v] | 6.1 [vi] (overall finance for the waste sector) | 45 % | 22 [vii] (organic waste) | CPI, 2023 |

**Notes:**
[i] Total ODF 2003–2021
[ii] ODF 2003-2021 to solid waste management (≈ US$ 1.8 billion) with low-income countries receiving only 8 % of this total amount.
[iii] CPI 2025a, total global climate finance.
[iv] CPI 2025a, total to waste sector.
[v-viii] CPI 2023, Landscape of Methane Abatement Finance 2023.


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At the same time, Official Development Assistance (ODA)—the most concessional and welfare-oriented component of ODF—is under acute pressure. A decline of 9 to 17 percent is projected in global ODA in 2025, following a similar contraction in 2024, marking the steepest reduction in nearly three decades (OECD, 2024). These parallel trends reveal a compounding risk: as concessional resources shrink and broader development finance remains concentrated in debt-based instruments, low-income countries face widening barriers to investing in essential waste and sanitation systems. Elevating the visibility of the waste sector within both ODA and ODF portfolios is therefore critical to align international finance with global climate, health, and circular-economy objectives.

# 1.2 The Missing Link Between Implementation and Justice

This structural mismatch makes the waste sector the missing link between climate implementation and environmental justice principles towards a Just Transition. It offers some of the fastest, most affordable, and socially inclusive ways to cut emissions — yet remains sidelined in both policy and finance compared to energy and agriculture.

The finance that does reach the waste sector is not only scarce but structurally misdirected. Much of it rewards incineration and other polluting end-of-pipe technologies that fail to cut emissions or deliver community benefits, while diverting resources from waste prevention, composting, and reuse. This skew reflects the deeper injustice of the current system: the actors already achieving real mitigation — municipal services, waste pickers, and community groups — remain under-financed and unrecognized, even as funds flow to polluting infrastructure that entrenches inequality.

Historically viewed as a sanitation issue rather than a climate investment, waste management has been excluded from major funding pipelines that drive global mitigation. This exclusion is not due to a lack of technical solutions, but to systemic inequities: Global South cities, responsible for managing most of the world's unmanaged waste, are expected to deliver climate results without the fiscal space or financial access to act.

Recognizing and financing waste as a climate-critical sector is therefore not only about environmental efficiency — it is about justice and credibility.

If climate finance cannot reach the people and systems already reducing emissions on the ground, the promise of implementation will remain hollow. This is the challenge — and opportunity — that makes **COP30 in Belém** a pivotal moment for aligning climate action with equity.

# 1.3 Growing Momentum on Waste Methane

Political and technical momentum is already building. The Reducing Organic Waste Methane (ROW) Declaration has been endorsed by 65 countries — representing nearly half of global waste methane emissions — committed to integrating zero waste, social and environmental justice in methane reduction plans. It highlights the most immediate path to deep abatement lies in adhering to full waste hierarchy: preventing organic waste generation, diverting organic waste from dumpsites and landfills through source separation, separate organic waste collection, and organic waste treatment. The Declaration further commits to integrating these actions into NDC 3.0 among various national climate policies, scaling finance and infrastructure, strengthening data and transparency, and ensuring inclusion of local stakeholders such as waste pickers.

At COP28, the **Lowering Organic Waste Methane (LOW-M)** initiative created new spaces for cooperation and data sharing. Yet without dedicated finance, LOW-M remains a coordination effort rather than a delivery mechanism. To achieve systemic change, initiatives like ROW and LOW-M need predictable, grant-based funding and direct access for local governments and cooperatives implementing zero waste systems.

Within the UNFCCC **Mitigation Work Programme (MWP)**, waste and circular-economy approaches are increasingly acknowledged as essential to methane reduction and sustainable development. This growing recognition is the result of years of advocacy by civil society, local governments, and waste picker movements demonstrating that zero waste delivers real results: measurable emission reductions, healthier communities, and more resilient local economies.

This progress stems from years of advocacy by civil society, local governments, and waste picker movements proving that zero waste delivers real results — measurable emission reductions, healthier communities, and more resilient local economies.


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# 1.4 Why Waste Belongs at the Center of the Implementation Agenda

**COP30 in Belém** represents a turning point. As the first Implementation COP, it will test whether the global climate regime can mobilize finance that delivers tangible and equitable results. For the waste sector, it is a chance to prove that climate implementation and social justice can move together.

**The next generation of Nationally Determined Contributions (NDC 3.0)** will define whether countries can translate commitments into systemic change. Many developing countries already pilot zero waste and circular economy initiatives, but these efforts cannot scale without predictable and just financial support. Without such finance, NDC 3.0 risks deepening inequities — asking the Global South to deliver mitigation without adequate resources, technology transfer, or fiscal space.

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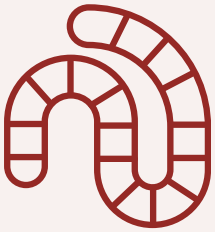
Centering zero waste in the global climate finance agenda offers multiple wins: rapid methane reduction, job creation, adaptation benefits, and social equity. But these outcomes will remain hard-to-realized if finance continues to favor **capital-intensive, large scale systems** over **public-service, people-centered approaches.**

Climate finance should instead support context-appropriate systems — centralized, decentralized, or hybrid — that uphold public-service principles, enable democratic participation, strengthen local ownership, and remain flexible to local realities and fiscal constraints. The goal is not to reject centralized infrastructure, but to ensure that all investments align with the waste hierarchy and advance equity and resilience towards a Just Transition.

To make COP30 the *COP of Implementation and Justice,* Parties must treat waste as a **strategic climate investment.** This means:

Embedding zero waste solutions, that follow the waste hierarchy with strong alignment with environmental justice principles, to slash waste methane as a priority area within climate finance.

Creating dedicated grant-based channels for municipalities and local implementers.



Including finance targets for organic waste diversion and composting in NDC 3.0.

Requiring MDBs and bilateral donors to align all investments with the waste hierarchy, prioritizing prevention, reuse, and composting over incineration and LFG capture.

The technologies and models already exist; what is missing is the political will — and the financial reorientation — to scale them. Moreover, despite this momentum, climate finance for the waste sector remains trapped in **structural barriers that prevent implementation at scale**—barriers explored in the next chapter.

# Structural Barriers for Financing Zero Waste and Just Transition

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While global climate finance for the waste sector remains critically low, the issue lies not only in how much funding exists, but how it is structured. Current finance systems favor capital-intensive, profit-driven projects, sidelining community-based and service-oriented solutions that provide higher social and environmental value. This reflects systemic biases in defining value, determining eligibility, and setting investment priorities.

This chapter unpacks these structural barriers preventing finance from reaching zero waste systems, then explores practical pathways to reform.

# 2.1 Why Zero Waste Remains Underfunded

The main barrier to scaling zero waste is finance, not technology. Community- and waste picker–led systems — including separate organic waste collection, composting, mechanical recovery, and biologically active landfill covers — can reduce methane emissions by up to 95 percent (Global Alliance for Incinerator Alternatives [GAIA], 2022, p. 12) while creating thousands of decent jobs (GAIA, 2022, p. 38).

Yet these solutions remain chronically underfunded, not for lack of evidence but because they challenge the logic of the current climate finance system.

**Designed to prioritize assets and financial returns, the system favors capital-intensive, fossil-linked projects while overlooking labor-intensive, justice-centered approaches that provide the greatest social and environmental value.**

As noted in Chapter 1, less than 1% of global climate finance reached the waste sector, with 99% of methane abatement funding directed to WTE projects, primarily incineration. This reflects a deeper bias in how value is defined: projects that generate revenue through energy sales, carbon credits, or tipping fees are prioritized over those that deliver public services, decent work, and community participation.

Both domestic and international finance privilege capital expenditure (CAPEX) — visible infrastructure such as plants and equipment — over operational expenditure (OPEX), which covers the ongoing labor, logistics, and institutions that sustain waste services. MDBs and International Financial Institutions (IFIs) prefer private partnerships promising revenue, while municipal budgets struggle to sustain cost-centered public services. The result is a self-reinforcing cycle: capital-heavy projects are favored, while operational and service-based funding for separation, collection, treatment, and informal workers integration remains chronically underfinanced.


This design flaw prevents cities from maintaining even successful pilot programs once grants expire, reinforcing the false assumption that waste management must generate revenue to be viable. Treating labor and service continuity as expendable costs and locks zero waste out of eligibility within mainstream finance. In reality, zero waste systems are significantly less expensive than conventional ones, allowing limited funds to achieve far greater climate and social impact. Their distributed, service-based benefits, however, make them appear "unbankable" by the current climate finance system.

Breaking this cycle requires financiers and development institutions to accept lower returns, longer time horizons, provide bottom-up financial support, and consider innovative investor partnerships across the financing spectrum (Ocean Conservancy, 2021, p. 14). This entails simpler legal requirements, a streamlined bureaucratic system, and contractual certainty that will enable community-based groups and waste picker cooperatives to access financing for piloting, replicating, and scaling up their projects with the local governments where they operate (Climate Policy Initiative [CPI], 2025b, p. 34).

The problem is not the absence of "bankable" projects, but the lack of financial support — particularly public, development, and philanthropic funding — to help early-stage local initiatives de-risk and scale these models. As a result, the most cost-effective and equitable climate solutions remain locked out of mainstream finance pipelines, despite their proven record of rapid methane reduction and inclusive development outcomes.

# 2.2 Value Bias: When Profit Outweighs Justice

Climate finance in the waste sector is shaped by a deep value bias — a structural preference for projects that generate financial returns over those that deliver climate and social outcomes. Within the limited pool of waste-sector finance, resources overwhelmingly flow to projects that maximize financial returns rather than climate or justice outcomes.

MDBs and IFIs favor incineration, RDF, and LFG schemes under heavy assumptions that they generate generous and predictable revenue streams from electricity sales, carbon credits, or tipping fees. However, these profits exist only because such projects are heavily subsidized — through public guarantees, tax exemptions, feed-in tariffs, or offtake agreements that transfer the financial risk from private investors to the public sector.

In effect, what appears "bankable" to investors is often a drain on public budgets, diverting funds that could otherwise sustain universal waste services or cross-subsidize zero waste programs that follow the waste hierarchy. These mechanisms fit investor logic but produce limited climate benefits and often displace informal workers who already provide essential mitigation services.

Conversely, labor-intensive, service-based systems led by municipalities, cooperatives, and communities rarely qualify for concessional finance because they depend on stable public expenditure instead of profit. The result is a persistent equity gap: financial flows rise to capital owners while the workers and communities driving real emission reductions remain invisible in budgeting and access decisions.

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# 2.3 The Access Gap for Implementers in Climate Finance

Local governments, cooperatives, and community groups are the real implementers of zero waste, yet they remain largely excluded from international climate finance. Most funds are routed through national ministries, multilateral intermediaries, or private partners, bypassing the institutions closest to delivery especially in developing countries.

Multilateral funds often prefer large-scale investments using traditional financing instruments, such as debts and private equity, are often not fit-for-purpose for early-stage implementation as they offer limited assurance of financial returns. This is a key barrier as it lacks flexibility due to their large-ticket sizes and complex bureaucratic processes (Earth Action, 2024, p. 15).

This top-down architecture delays implementation, increases transaction costs, and erodes local ownership. Global South cities are thus expected to deliver climate outcomes without direct fiscal space or accessible funding channels. Direct-access windows and simplified grant mechanisms are urgently needed to ensure that local actors can plan, implement, and scale zero waste systems on their own terms.

# 2.4 The Continuity and Coherence Gap in Climate Finance


Even where funding exists, it is fragmented across short-term donor projects, scattered pilot initiatives, and consultancy-driven programs that vanish once grants expire. This piecemeal approach reflects a broader bias toward discrete "projects" rather than systemic public-service reform.

Without predictable, long-term, and coordinated finance, cities are trapped in cycles of experimentation — restarting every few years instead of scaling proven models. The lack of continuity erodes institutional learning and financial stability. Cities often depend on temporary donor funding that covers initial capital costs but fails to sustain operations such as collection, composting, and worker integration.

Long-term, programmatic finance — combining grants, fiscal transfers, and cost-saving reinvestment — is essential to transform zero waste pilots into durable, citywide systems. Predictability is not just a financial condition; it is the precondition for scaling justice-based climate action.

# 2.5 Global Finance Architecture and Governance Bias

The international climate-finance system reinforces many of the barriers described above. MDBs, IFIs, major climate funds dominate decisions on waste sector finance, yet their mandates and investment frameworks prioritize bankable projects over development and co-benefits.

**As previously explained in Chapter 1**, ODF trends mirror this imbalance. Between 2003 and 2021, only 0.41 percent of all development finance went to solid waste management, with grants making up just 31 percent and the rest are loans — mainly provided by MDBs with several national donors from Germany, Belgium, Japan, Republic of Korea, and Denmark (Lerpiniere, Wilson & Velis, 2025). In the same period, only 8 percent goes to low-income countries, reflecting a governance bias as grants do not go to places that need it the most.

MDBs' high-level commitments on Paris Alignment also legitimize false solutions in the waste sector. For instance, Joint MDB Methodological Principles for Assessment of Paris Agreement Alignment, MDB Just Transition High-Level Principles, Joint MDB Methodological Principles for Assessment of Paris Agreement Alignment of New Operations continue to support WTE incineration and waste co-firing projects. These projects are not Paris-aligned, yet, MDBs do not include these projects into their investment exclusion list. By contrast, the European Union has explicitly excluded waste burning from their Taxonomy (Zero Waste Europe, 2021). These contradictions expose persistent implementation gaps between institutional promises and actual finance flow.

Multi-donor initiatives like the Climate Investment Funds (CIFs) and Just Energy Transition Partnerships (JETPs), continue to legitimize false solutions such as WTE incineration and RDF, which extend fossil dependence and harm communities. CIF and JETP investment plan in the Philippines (Climate Investment Funds, 2023) and Indonesia (JETP Indonesia Secretariat, 2023) have included repurposing of coal plants to WTE incineration, waste co-firing in the form of RDF, and Carbon Capture, Utilization and Storage (CCUS). Concentrated decision-making power among donor countries and MDBs sidelines the local actors best positioned to deliver just and circular waste transitions.

The outcome is a governance bias: the same institutions that control the bulk of climate


finance have not developed financing rules that are suited to fund service-based and justice-oriented systems at the local level. Until the rules of access, eligibility, and value assessment change, zero waste solutions will remain chronically underfinanced — regardless of their proven climate effectiveness. Addressing these structural barriers requires reimagining how finance interacts with the waste sector — from treating waste management as an infrastructure project to recognizing it as an essential public service.

The next chapter examines how these financial reforms intersect with broader questions of labor, justice, and power in advancing a Just Transition.

# Financing Two Solutions at Once: Zero Waste and Just Transition

03

Building on the structural reforms outlined in Chapter 2, this chapter examines how financing mechanisms can deliver these twin outcomes. The waste sector offers one of the clearest opportunities to finance two solutions at once: **rapid methane reduction** and **Just Transition** that secures the rights and livelihoods of workers and communities.

Often overlooked, there are 15 to 20 million workers in the waste sector globally. Yet, only 4 million of these are in formal employment, while the vast majority are informal waste pickers operating without social protection, recognition, or fair compensation. Many of these workers are women, making this sector a key site for advancing both gender equity and economic inclusion (International Labor Organization, 2013, p. 37). Between 2017 to 2018, at least 2.2 million waste pickers in India and 32 percent of them are women, equivalent to 1.2 percent of India's total employment (Raveendran and Vanek, 2020).

Each dollar invested in **zero waste systems**—source separation, composting, and recycling—delivers dual returns: mitigating methane and strengthening local economies by creating thousands of local, safer, and stable jobs. These systems are **already operating worldwide**, providing a model for equitable and rapid transition. Financing these two goals together embodies the central promise of the Paris Agreement — that emission reduction and Just Transition can advance in tandem.


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## Zero waste systems — already proven, cost-effective, and justice-centered — form the foundation for a just and rapid climate transition.

Cities that invest in waste segregation, decentralized composting, and recycling enterprises see direct job creation in collection, processing, repair, and remanufacturing, alongside cleaner air, reduced landfill costs, and new small business opportunities. Financing them at scale means financing both resilience and equity.

# 3.1 Financing Principles and Ecosystem for a Just, Effective, and Equitable Transition in the Waste Sector

Financing zero waste and Just Transition requires not only new resources, but also a redesign of how finance flows through every level of governance. The waste sector is uniquely positioned to deliver fast methane reduction and social equity — only if financial systems are guided by principles that value public service, labor, and justice as much as infrastructure and returns. To guide this shift, the following core principles should anchor all domestic and international frameworks:

## New and Additional

Organic waste and plastics must be recognized as new global challenges requiring **new resources**, not re-labeled funds.

## Adequate and Predictable

**Funding must match the scale of the methane challenge** and include sustained operational support for essential public services, not only infrastructure (see Section 3.2.1).

## Dedicated Mechanism

A **tailored financial mechanism** within or alongside the UNFCCC should guarantee access for municipalities, cooperatives, and local implementers. This is done together with changes to existing relevant institutions as previously explained.

## Debt-Sensitive and Grant-First

Waste management is a **public good,** not a profit center. Grants and concessional finance must take precedence. Debt instruments shall only be used in a concessional manner and carefully designed to avoid debt trap.

## Accessible

Simplified procedures must allow **direct access** to finance for subnational governments and waste picker organizations.

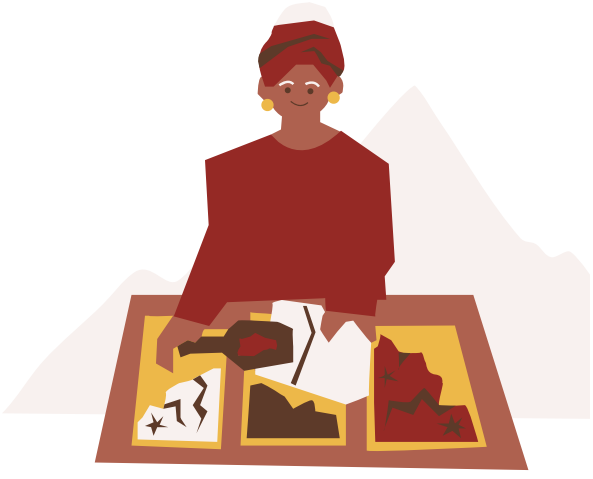
## Aligned with the Waste Hierarchy

Prioritize **prevention, reuse, composting, and recycling,** excluding false solutions such as incineration, RDF co-firing, plastics-to-fuel, and chemical recycling.

## Justice and Equity Lens (CBDR)

Finance must flow from developed to developing countries while safeguarding local agency, participation, and ownership. Ensuring equity also means integrating labor rights, gender inclusion, and social protection into financing systems—issues explored further in **Section 3.5 (Advancing a Just Transition in Practice).**

These principles reflect not only financial prudence but ethical responsibility — embedding **Common but Differentiated Responsibilities (CBDR)** and **environmental justice principles** into climate finance design for a Just Transition in the waste sector.



Putting them into practice requires a coherent, multi-level financing ecosystem linking global commitments, national fiscal policy and local delivery. Climate action cannot rely on fragmented projects. It must channel **a continuous flow of predictable, grant-based, debt-sensitive, and justice-aligned finance** from international funds to local implementers through aligned institutions at every tier.

Participatory governance is **non-negotiable**. Workers' cooperatives, local governments, and civil society must be **co-architects** of financing mechanisms — not mere beneficiaries. Such participation ensures finance strengthens local ownership, democratic quality, and institutional durability—creating political buy-in across levels and sustaining just, equitable emissions-reduction efforts.

The next sections examine how this ecosystem can be operationalized through institutional reforms, financial instruments, and practical modalities that align climate finance with justice.

| Level | Primary Role | Examples of Mechanisms |
|---|---|---|
| **International** | Mobilize and allocate **new, additional public finance** with alignment with NCQG, NDC 3.0, and Paris Agreement goals | NCQG targets, GCF reform, global PPF, and other grant-based mechanisms |
| **National** | Reform fiscal incentives, shift subsidies, and establish **domestic climate funds** to operationalize waste hierarchy and Just Transition | Final disposal taxes, national PPFs, subsidy shifting towards upstream interventions, national *Just Transition Funds* |
| **Local / Subnational** | Deploy grants and cooperative financing for implementation and public service continuity | Final disposal taxes, municipal small-grant facilities, cost-saving reinvestment mechanism, city–cooperative partnerships |

# 3.2 Making Finance Work for Zero Waste: Addressing Structural Barriers

This section explores how reforms can enable finance to reach zero waste systems by shifting from project-based and capital-heavy models toward public-service-oriented, operationally sustainable systems. The goal is not just to unlock more finance, but to redesign how it functions — from short-term investment to long-term service delivery and Just Transition in the waste sector.

## 3.2.1 Balancing CAPEX and OPEX: Financing Public Service, Not Just Projects

Community-based zero waste systems in many cities invert conventional infrastructure logic. They require relatively low upfront capital expenditure (CAPEX) but continuous operational expenditure (OPEX) for collection, composting, and worker integration (Climate Policy Initiative, 2025b, p. 30). Yet most climate-finance mechanisms favor one-off capital projects over sustained public service delivery, leaving cities unable to sustain operations once grants expire.

Finance must therefore move from "funding primarily infrastructure" to "funding primarily services". Waste management should be treated as an essential public service not as a revenue-generating enterprise. Hence, local governments need predictable and reliable financing sources to run public service and sustain it in the long run. Most Global South cities struggle to fund their basic waste service, primarily waste collection and transportation as the primary driver of waste management cost (United Nations Environment Programme [UNEP], 2024, p. 30). While high-income countries achieve over 90 percent collection coverage, many low- and middle-income regions reach only 35–45 percent (UNEP, 2024, p. 23).[9] Additionally, labor is also a major cost driver of waste management that serves as the sector's greatest source of green jobs (CPI, 2025b, p. 29).

Cities still need CAPEX for basic infrastructure, but investments should prioritize expanding collection coverage, establishing separate

[9] While the global average of municipal solid waste collection rates is 75 percent, countries in the Global South suffer poor service coverage of waste collection. Regions in sub-saharan Africa, Central Asia, South Asia, and Oceania are estimated to have their waste collection rates between 36 to 45 percent. While Global North countries in Europe, North America, and Australia reach over 93 percent.

organics systems, and diverting waste from landfills and incineration. **As explained in Chapter 1**, only 1 percent of methane abatement finance goes to organic waste management and 99 percent goes to WTE projects, mainly WTE incineration — the most expensive option for managing waste and generating energy. This needs to be flipped to ensure CAPEX investment establishes fundamental change of a universal and high-quality service delivery of waste management.

Decentralized systems—such as community composting and cooperative models in Indonesia and Brazil—are far more cost-effective and competitive compared to centralized and capital-intensive models, such as WTE incinerator and RDF (CPI, 2025b). They achieve higher cost efficiency across both capital and operational expenditures by avoiding major fixed-asset costs such as land acquisition. The home composting model in Brazil, for example, is among the most efficient, with a Levelized Cost of Waste Management (LCOW) ranging from US$1.69 to 19.12 per tonne.

Cities can also reinvest avoided costs by channeling savings from reduced landfill airspace, shorter hauling distances, and avoided tipping fees into community-based zero waste operations. Durban, South Africa, for example saved R18 million (≈ US$1 million) over 10 years, with a Net Present Value of R10.5 million (≈ US$600,000) (groundWork, 2025, p. 9). These savings were reinvested into market infrastructure and public education on food waste and climate impacts (groundWork, 2025, p. 4).

Institutionalizing this feedback loop transforms operational savings into a stable, predictable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funding stream that allows zero waste systems to expand as they succeed. These systems deliver far greater social and environmental returns than capital-intensive approaches and should receive the same recognition and continuity of support. WTE incineration projects already apply this principle in practice: their high operating costs are routinely sustained through guaranteed energy revenues and public subsidies, ensuring that OPEX is never treated as a constraint. The same financial commitment should apply to zero waste systems that generate public value rather than profit.

To achieve this at scale, IFIs, national governments, and climate funds must embed this principle into their financing architecture—recognizing waste management as a continuous essential service, not a one-off project. Long-term grants, fiscal transfers, and programmatic finance should sustain OPEX and institutional capacity, while CAPEX investments focus on universal access, high waste diversion, and infrastructure that enables upstream prevention, reuse, and composting in line with the waste hierarchy. Aligning these funding streams would close the false divide between projects and services, allowing climate finance to deliver resilient public systems.

### 3.2.2 Enabling Spatial Justice and Land Access

Spatial justice—a central concept in urban planning and environmental justice—seeks to make spaces more equitable and democratic by confronting patterns of exclusion and unequal access to resources and decision-making. In the waste sector, spatial justice means that the communities implementing zero waste solutions have equitable access to land, infrastructure, and governance spaces needed to deliver climate action and essential waste services. Yet access to land remains one of the least recognized barriers to scaling decentralized zero waste systems. Urban planning frameworks often prioritize large, centralized facilities, while overlooking decentralized composting and material recovery facilities—smaller in scale but numerous in distribution—managed by communities or cooperatives.

Fixed assets — mainly land and buildings — dominate total asset value, accounting for 89 percent of total capital expenditure in Indonesian cases and 58 percent in Brazil (CPI, 2025b, p. 29). This high proportion of fixed assets makes land a prohibitive entry cost for smaller actors, especially community-based groups and waste picker cooperatives that often lack collateral or access to credit. Many such initiatives operate on temporary or informal sites, making it difficult to attract funding or secure long-term operational stability. In practice, this unequal spatial access reinforces social and financial exclusion, reproducing the same inequities that zero waste systems aim to correct.

Evidence shows that decentralized, community-based, organic waste management projects are cost-competitive. However, financial and regulatory frameworks tend to favor large, centralized, capital-intensive projects over smaller, decentralized, organic waste management systems.

The result is a misalignment between the financial logic of urban planning and the equity logic of zero waste. Cities and financiers reward visibility and scale, while communities deliver climate results without spatial security. Therefore, land justice and equitable public land allocation play a central role to reduce entry costs, particularly for community- and waste pickers-led zero waste projects (CPI, 2025b, p. 33).

Enabling spatial justice requires embedding equitable land access into climate finance and urban policy. Land is not merely a technical asset—it is a precondition for participation, recognition, and justice. National and local governments can use fiscal, planning, and financing tools to close this equity gap by:

**Reclassifying community-based zero waste facilities as social infrastructure, equivalent to schools, markets, and health centers.** This reclassification enables cities to allocate or lease public land for composting and material recovery facilities managed by communities or cooperatives

**Integrating spatial planning with climate finance frameworks,** so that city master plans and investment pipelines include decentralized zero waste infrastructure as essential public service.

**Creating land-grant or long-term lease programs** within national and municipal funds, ensuring that grants and concessional finance can cover site acquisition and tenure security for local actors.

**Applying land-value capture[10], property taxes, or polluter-pays instruments** to generate local revenue earmarked for zero waste facilities, particularly in low-income and underserved areas.

Recognizing land as a form of social and financial capital is therefore essential for a Just Transition in the waste sector. Climate finance frameworks should explicitly include land access and tenure security as eligible expenditure categories, enabling community-led initiatives to obtain stable operational sites and leverage long-term investment. Embedding spatial justice into fiscal and urban policy ensures that the transition to zero waste is not only technically sound, but also fair — rooted in the right of the people to meaningfully participate in shaping the spaces where they live and deploy climate action.

[10] Land-value capture is a financial policy mechanism that allows governments to recover a portion of the increased land value created by public investments in infrastructure, such as new roads, transit lines, or parks, and reinvest those funds to finance additional public improvements or services.

### 3.2.3 Redirecting Subsidies and Reforming Fiscal Incentives

Public finance continues to reward pollution at scale. Across Asia, billions in tax breaks and incentives flow to petrochemical and WTE incineration projects — locking economies into fossil dependency under the guise of "industrial development" and "energy transition". In Indonesia, for instance, PT Chandra Asri Petrochemical enjoys 100 percent corporate income tax exemption for 20 years (Nexus3 Foundation, 2023). Similarly perverse incentives sustain incineration and RDF projects, where tipping fee subsidies, feed-in tariffs subsidies, and offtake guarantees sustain fossil-linked waste burning as "renewable energy" (Baker McKenzie, 2018; Universitas Gadjah Mada, 2023).

Such incentives constitute perverse subsidies — effectively using public funds to expand plastic feedstock and waste incineration capacity. Redirecting even a fraction of these subsidies toward waste prevention, reuse, and composting would transform sector economics. Governments must phase out fossil-based incentives and realign fiscal tools with the waste hierarchy, rewarding prevention and recovery over disposal.

Beyond subsidy reform, governments — both at the national and local level — can use fiscal instruments as positive enablers of zero waste when designed to generate predictable and fair revenue streams for public waste systems:

- **Polymer Production Fee** — also known as Polymer Premium, which will be discussed further in Section 3.4.2 — are relatively simple to administer, have little economic impact, and can generate large, unrestricted revenues for waste prevention and management (Minderoo Foundation, 2024);
- **Extended Producer Responsibility (EPR) fees** paid into public funds rather than private Producer Responsibility Organizations (PROs) can strengthen government capacity to finance source separation, composting, and Just Transition programs for informal workers (Minderoo Foundation, 2024, p. 15);
- **Phase out fossil-based and end-of-pipe incentives** (e.g., for incineration, RDF, petrochemicals, and synthetic fertilizers);
- **Align fiscal tools** with the waste hierarchy by rewarding prevention, reuse, and composting;
- **Introduce progressive levies and disposal taxes** that discourage pollution while generating earmarked funds for upstream solutions;
- **Provide technical assistance** to support municipal fiscal reform, ensuring operational costs can be sustainably covered particularly for basic waste services.

### 3.2.4 Integrating Co-Benefits into Financing System for Accountability

At the national level, governments must reform fiscal frameworks to recognize and reward the broader social, environmental, and economic co-benefits of zero waste systems. These co-benefits cover a broad range of benefits: reduced landfill costs, improved public health, enhanced soil productivity, job creation, and deep methane cuts. Currently these gains are rarely quantified or reflected in climate or government budget planning, leaving zero waste undervalued.

Co-benefits accounting in the waste sector can be done through quantitative and qualitative approaches, such as cost-benefit analysis, life cycle assessment, and environmental accounting. These frameworks evaluate positive externalities —like reduced greenhouse gas emissions, improved air quality, job creation, and public health gains—alongside core project metrics.

Multiple national ministries at the national level, along with financiers, should integrate co-benefits quantification, key performance frameworks, and accountability indicators into fiscal planning and climate-reporting — including at the project level. When avoided costs, social benefits, and emission reductions are formally tracked, zero waste becomes a fiscal and social priority rather than a discretionary environmental and sanitary program.


At the same time, international efforts to standardize impact measurement provide an important model. The Joint MDB Indicator for a Common Approach to Measuring Climate Results demonstrates that unified metrics for climate outcomes are feasible and already in development.

> Integrating zero waste–specific indicators — such as methane mitigation, decent work creation, and community participation — into national and municipal reporting would harmonize local accountability with emerging global standards.

Such integration aligns fiscal policy with climate and social goals, making community-based zero waste systems both financially feasible and scalable within the broader finance architecture.

### 3.2.5 Preventing the Deepening of Debt Vulnerabilities in the Global South

Many countries in the Global South already face high debt distress, leaving limited fiscal space for essential public services. Over half of low- and middle-income countries in the Global South are classified as heavily or very heavily vulnerable to debt distress in 2025 (Entwicklung braucht Entschuldung e. V. & Misereor, 2025). Debt service payments by Global South countries now exceed US$1 billion per day, a historic peak forcing governments to cut spending on social and developmental needs (Entwicklung braucht Entschuldung e. V. & Misereor, 2024).

Despite these very concerning trends of indebtedness, climate and waste projects are still largely financed through concessional or blended loans, often tied to expensive, capital-heavy technologies such as WTE incinerators[11] (Moon, 2021). These projects rarely generate sufficient revenue to cover repayment, effectively deepening public debt while locking countries into high-cost, high-emission pathways.

Financing zero waste must instead prioritize grants, fiscal transfers, and debt-relief–linked mechanisms that strengthen, not strain, local budgets. Climate finance should help build public-service capacity rather than create new repayment obligations. Redirecting resources from loan-based infrastructure toward grant-based, operationally sustainable systems ensures that climate action contributes to resilience rather than financial vulnerability — a core principle of climate justice and a Just Transition.

Together, these reforms — from municipal service design to national fiscal frameworks and international finance governance — show that enabling zero waste is not about creating new technologies, but about transforming how resources, risks, and responsibilities are distributed across levels of governance.

In short:

**financing zero waste equals financing resilience, justice, and climate ambition at once.**

[11] WTE incineration is highly capital-intensive, costing US$190 million–1.2 billion per facility (1 million tonnes/year capacity), with both CAPEX and OPEX far exceeding those of composting, anaerobic digestion, or landfilling.

# 3.3 Reforming International Climate Finance Architecture

The persistent funding gaps and biases outlined above exist because the global climate-finance architecture itself remains misaligned. Transforming it is essential to make zero waste and Just Transition both visible and fundable. Reform is needed not only at the municipal or national levels but also at the institutional and governance core of the global financial system itself.

Existing institutions still reward capital-intensive, profit-driven projects instead of the service-based systems that deliver real implementation and justice. MDBs, IFIs, and major climate funds must align their mandates, instruments, and metrics with methane mitigation and Just Transition goals — shifting from asset-driven to service-driven investment.

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### 3.3.1 Operational and Institutional Reform

Reform within MDBs and IFIs is the operational core of aligning finance with zero waste implementation. **As discussed in Section 2.5**, MDBs and IFIs have pledged to align on Paris Agreement and Just Transition principles, yet implementation remains inconsistent. To ensure genuine reform, these commitments must become operational and binding, therefore these institutions should:

**Shift from asset-driven to service-driven investment** acknowledging that waste management is an essential public service that is cost-driven by nature, not profit-oriented.

**Increase grant-based and operationally oriented financing** that sustains basic waste services operation rather than focusing mostly on capital infrastructure.

**Create direct-access and sub-granting windows for implementers** such as municipalities, waste picker cooperatives, and community enterprises implementing zero waste programs.

**Simplify and democratize access procedures,** removing barriers tied to sovereign credit ratings or central-government endorsements.

**Integrate methane reduction and waste hierarchy priorities** into institutional climate strategies and partnership frameworks.

**Institutionalize inclusive governance,** ensuring Global South governments, local authorities, and waste picker movements participate in decision-making.

**Enforce harmonized social and environmental safeguards among MDBs and IFIs** as preconditions for financing before the projects start, not as project-performance indicators.

Such reform would redirect finance away from capital accumulation toward **public-service transformation** — from funding infrastructure that emits methane to funding systems that prevent it. They would also ensure that "bankability" is defined by climate, social, and justice outcomes rather than only the profit potential.

### 3.3.2 Governance and System-Level Reform

Operational reform inside MDBs must be reinforced by transformation of the global governance frameworks that set financial rules. The NCQG negotiations, MDB-alignment frameworks, and sustainable-finance taxonomies offer a once-in-a-decade opportunity to embed justice and accountability in climate-finance governance.

Key reforms should include:

- **Recognizing the waste sector as climate-critical** under mitigation, adaptation, and Just Transition pillars building on the NCQG;
- **Excluding false solutions** through alignment with the waste hierarchy. WTE incineration, RDF co-firing, plastics-to-fuel, and chemical "recycling" should be classified as non-aligned under Paris Article 2.1(c)[12];
- Adopting **co-benefit indicators** — decent work, gender inclusion, public health, and community participation — as reportable metrics tied to disbursement;
- Integrating **justice metrics** into global climate finance tracking and reporting; and
- **Grant dominance and debt sensitivity** in implementation finance, ensuring transparency on debt exposure and safeguards (see Section 2.5).


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These governance reforms create the enabling environment to make every dollar of climate finance achieve three outcomes simultaneously:

1. emission reduction;
2. institutional capacity for delivering public service; and
3. improved livelihoods for waste pickers and communities.

Together, these operational and governance reforms make justice **measurable, fundable, and enforceable**—the missing accountability link in current finance systems. Aligning institutional behavior, governance rules, and measurable outcomes would finally allow climate finance to deliver both rapid methane mitigation and social justice.

If adopted, these reforms would make COP30 not merely the Implementation COP but the moment when climate finance began to deliver **implementation and justice together.**

[12] Paris Agreement Article 2.1(c) states "Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.'

# 3.4 Financial Modalities for Implementation and Justice

Zero waste and Just Transition financing require an **ecosystem of complementary instruments** — blending public investment, polluter-pays tools, and cooperative finance to value people and services as much as infrastructure.

Below are the **core modalities** that together can form a coherent financial architecture for implementation and justice:


## 3.4.1 Grants

Grants are the backbone of zero waste financing. They fund **public goods** — such as separate collection, decentralized composting, waste picker integration, and community education — that deliver major climate and social value but yield no direct monetary return. Well-structured grants can cover **OPEX** during the first 3–5 years of implementation, helping cities establish robust systems before local revenue and fiscal capacity can take over. Grants should also support **remediation and social protection** — closing open dumpsites, retraining waste workers, and building cooperatives that form the backbone of circular economies.

### 3.4.2 Polymer Production Fee

A Polymer Production Fee (PPF) operationalizes the *polluter-pays* principle by placing a levy on virgin polymer (fossil-based plastic) production. This can be operated both at the global and national level. A fee of US$60 to 90 per tonne on primary polymer production would close the financing gap, amounting US$350 to 500 billion, enabling developing countries to implement ambitious global plastics treaty obligations in full by 2040 (Minderoo Foundation, 2024).

Because 99 percent of plastics come from fossil fuels, this fee would directly link **global or national plastic production to climate accountability**. When implemented, a modest fee could generate billions annually, creating a predictable, scalable funding source for national and local zero waste initiatives. PPF revenues could flow into national or global funds supporting **municipal implementation, cooperative integration, and community enterprises**, while reshaping market incentives to favor reuse and refill systems.


### 3.4.3 Final Disposal Taxes

Fiscal disincentives can realign public spending with climate goals. **Taxes on final disposal facilities, including landfill and dumpsites, waste incineration, RDFs production and co-firing in power plants and cement kilns, and chemical "recycling"**, discourage polluting methods while generating earmarked revenue for upstream solutions. Revenue from these levies can be redirected to **composting, reuse, and repair infrastructure**, supporting cities in meeting methane and waste-diversion targets. Disposal taxes should not be too high or they will incentivize illegal dumping and open burning.

As an example, Austria charges a landfill tax for untreated municipal solid waste (MSW) at €87 per tonne, and an incineration tax at €8 per tonne (Ettlinger & Bapasola, 2022). In 2023, Spain adopted a tax on non-reusable plastic packaging, landfill, waste incineration, and co-incineration (KPMG Abogados S.L.P., 2022). Similarly, the Netherlands has increased its landfill and incineration taxes — raising the landfill tax to €234.83 per tonne by 2029 and introducing higher $CO_2$-based levies on incineration — to discourage waste generation and align fiscal policy with climate goals (Netherlands Enterprise Agency, n.d.). These systems create a substantial economic disincentive for activities that perpetuate single-use and end-of-pipe systems, fostering favorable conditions to grow higher rates of material recovery and waste prevention.

### 3.4.4 Microfinance and Cooperative Funds

Revolving or micro-credit facilities enable waste picker cooperatives and community enterprises to access small-scale capital without losing ownership or autonomy. When paired with municipal contracts, these funds secure steady income and formalize livelihoods. Such funds can finance small equipment, collection vehicles, or local recovery facilities — bridging the gap left by large-scale donors. When linked to municipal contracts or service agreements, they ensure steady revenue streams for workers transitioning into the formal system.

### 3.4.5 Cost-Saving Reinvestment

Zero waste systems reduce municipal costs by minimizing landfill operations, hauling distances, and disposal fees. **As explored in Section 3.2.1**, institutionalizing and formalizing **cost-saving reinvestment mechanisms** allows these avoided costs to be reinvested directly into zero waste programs, creating a **self-sustaining fiscal loop.**

### 3.4.6 Subsidy Shifts

Redirecting subsidies remains one of the most powerful ways to finance zero waste using existing budgets. **As discussed in Section 3.2.3**, aligning fiscal incentives with the waste hierarchy can free significant domestic resources currently locked into fossil and end-of-pipe technologies. Governments can repurpose these funds toward prevention, composting, and reuse — turning fiscal reform into a durable climate-finance strategy that supports both emission reduction and justice.

### 3.4.7 Concessional Debt Instruments

Concessional debt instruments can play a **selective and supportive role** in financing zero waste systems, but only under strict safeguards. While debt is often risky — especially in already vulnerable economies — private capital will continue to seek modest, return-generating portfolios. Concessional loans may therefore be appropriate for **revenue-generating activities** that complement public systems, such as **black soldier fly (BSF)** projects that convert organic waste into marketable products.

In such cases, public or municipal entities should **retain the value created**, using profits to **cross-subsidize essential services** like waste collection, sorting, and education. However, concessional finance must **not replace grants** for these public goods. Strong social and environmental safeguards are essential to prevent new debt burdens and ensure that projects advance **decent work, local employment, and equity**.

Used judiciously, concessional debt can complement grants and fiscal transfers by supporting innovation and community enterprises. Misused, it risks deepening market bias and debt vulnerability. Its role should therefore remain **limited, justice-aligned, and subordinate to grant-based finance** within a zero waste and Just Transition framework.

# 3.5 Advancing a Just Transition in Practice

A **Just Transition** in the waste sector ensures that no worker is left behind as cities modernize their systems.

Waste pickers, informal recyclers, and sanitation workers are already climate actors — their daily labor prevents emissions. Coordinating finance for such worker-centered transitions requires coherence across global, national, and local levels. Initiatives such as the proposed BAM exemplify this direction of reform: linking Just Transition efforts with grant-based, justice-aligned financing for local actors.

To make the transition just and durable, climate finance must:

- Guarantee **formal recognition**, workers' dignity, fair wages, and social protection;
- Support training, cooperative development, and **access** to public contracts;
- Fund **social dialogue and worker-led innovation**; and
- Prioritize **gender-responsive measures** for informal workers.

Investing in people is not peripheral to mitigation — **it is mitigation**.

Financing zero waste and Just Transition together demonstrates that climate action can reduce methane, create dignified jobs, and build resilience at once.


The non-climate co-benefits of Just Transition are vital to win and maintain public support for ambitious climate action.

Financing zero waste and a Just Transition is not an optional experiment and highly critical for the success of COP30 as the "Implementation COP." By embedding justice within climate finance, the global community can prove that **implementation and equity are not competing goals**, but two sides of the same solution.

# The Way Forward: Policy Recommendations for COP30

04

The reforms and practices described in the previous chapter show that implementation and justice are not opposing goals but two sides of the same solution. From community-based systems that already deliver methane reduction and decent work, to the global reforms needed to support them, the pathway is clear: climate finance must now move resources at the pace of local action and in the direction of equity.

COP30 in Belém marks a defining moment to implement NDC 3.0 and ensure we bend the curve fast enough to keep humanity within the safe planetary boundaries in just and equitable ways. It must demonstrate that climate finance can deliver **real, equitable results** — not just new pledges, but power to implement ambitions on the ground.

This section outlines how governments, IFIs and donors, and the UNFCCC process can translate these imperatives into practice — turning the lessons of local implementation into the governing principles of global finance.

# 4.1 Key Recommendations

## 4.1.1 For Governments

National governments hold the key to unlocking predictable, justice-based climate finance for the waste sector. They set the fiscal rules, subsidy structures, and policy priorities that determine whether zero waste systems thrive or remain underfunded. Governments must therefore act not only as funders but as enablers — creating the legal and financial environment in which cities, communities, and waste pickers lead implementation.

To translate the principles of implementation and justice into action, governments should pursue the following measures:

1

### Remove Waste Incineration in Financing Mechanisms and Legislation.

Eliminate WTE incineration, RDF co-firing, plastic-to-fuel, and chemical "recycling" from all national legislation, plans, renewable energy classifications, national sustainable and climate taxonomies, and project pipelines. These false solutions undermine the waste hierarchy, deepen debt, and divert funds from prevention, reuse, and composting.

2

### Embed zero waste and Just Transition in NDC 3.0 Targets and Implementation Roadmap

Waste-sector goals must be explicit within NDC 3.0 commitments, including measurable targets for **organic waste diversion, composting, and waste picker integration.** Recognition ensures eligibility for climate finance and integration into national investment plans.

3

## Recognize the Waste Sector as an Essential Public Service

Governments must commit to **universal access to sustainable waste management** as a fundamental public service — a cornerstone of resilience, health, and climate mitigation. This recognition anchors zero waste in fiscal planning and national climate policies.


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4

## Reform Subsidies and Fiscal Incentives

Phase out public subsidies from fossil-based and end-of-pipe technologies — such as incineration, RDF co-firing, and LFG capture — then redirect them towards **upstream solutions** following the waste hierarchy.

- Introduce **final disposal taxes**, including WTE incineration, RDF co-firing, and LFG capture to disincentivize pollution.
- **End offtake guarantees and tax holidays** for fossil-industry (e.g. petrochemical companies that produce plastics and synthetic fertilizers) and RDF. Then, shift it towards offtake guarantee for local actors that produce organic fertilizers, compost, BSF and animal feed from organic waste, and businesses that implement upstream measures (e.g. reuse, refill, and repair).
- **Support compost markets and local reuse industries** through fiscal credits.
- **Provide Viability Gap Fund** for community-based decentralized organic waste projects and small-medium enterprises (e.g. BSF farmers) to scale their projects.

5

## Institutionalize Cost-Saving Reinvestment Mechanisms

Municipalities should reinvest savings from landfill diversion and transport reduction directly into zero waste programs. Such **revolving cost-savings funds** create self-sustaining local finance loops, rewarding prevention over pollution.

6

## Adopt Debt-Sensitive and Grant-First Fiscal Policies

National climate financing strategies must prioritize **grants over loans** for essential services and apply debt-sensitivity screening to any borrowing for climate projects. Concessional lending should be limited to **revenue-generating activities** only.

7

## Develop National Just Transition Strategies for the Waste Sector

Governments should create **Just Transition strategies** that formally recognize waste pickers, recyclers, and sanitation workers as climate actors. Climate finance should earmark resources for these strategies to ensure no worker is left behind. These strategies should:

- Guarantee access to training, social protection, and public contracts.
- Support the formation of cooperatives and worker-owned enterprises.
- Integrate gender-responsive measures to address inequities in informal labor markets.

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### 4.1.2 For International Financing Institutions and Donors

The credibility of the Implementation COP will hinge on whether climate finance measures justice as rigorously as it measures carbon. Co-benefit accounting provides a concrete path to make equity visible, measurable, and fundable. MDBs, climate funds, and bilateral donors control the majority of concessional finance and wield decisive influence over what gets defined as "bankable". They must be aligned and implement their commitment to fill the finance gaps for scaling zero waste solutions, particularly in the Global South. The following actions define what alignment looks like in practice:

1

#### Align Climate Financing in The Waste Sector with The Waste Hierarchy

Mandate that investments follow the **waste hierarchy** — prioritizing prevention, reuse, and composting — and explicitly exclude false solutions such as WTE incineration, RDF, plastics-to-fuel, and chemical recycling.

- Enforce this alignment through Paris Agreement **Article 2.1(c)** reviews
- Classify all projects inconsistent with the hierarchy as "non-aligned."

2

## Operationalize and Measure Justice through Co-Benefit Metrics

MDBs and donors must move beyond rhetorical commitments to a Just Transition by integrating **justice metrics** into portfolio design, implementation, and evaluation.

These metrics should quantify **social, economic, and environmental** co-benefits generated by zero waste systems, including:

- **Decent and dignified work:** number of waste pickers/formal workers integrated with fair wages and social protection.
- **Public health:** reduction in open burning, waste-related diseases, and toxic exposure.
- **Resilience and food security:** tons of compost produced, hectares of soil restored, or fertilizer use reduced.
- **Gender and inclusion:** share of women and marginalized groups with improved income and safety.
- **Community participation:** number of community-managed facilities or cooperatives with direct funding access. MDBs should adopt these as **reportable co-benefit indicators** in line with their Paris Alignment and Just Transition principles, and tie them to project performance and disbursement conditions. In doing so, MDBs can demonstrate that every dollar of climate finance contributes to both mitigation, adaptation and Just Transition.

3

## Scale Predictable and Dedicated Finance for Zero Waste

Under the new NCQG, allocate adequate and additional funding specifically for zero waste and methane abatement measures, focusing on grant-based mechanisms and technical assistance.

4

## Guarantee Direct Access for Local Governments and Cooperatives

Establish simplified access windows and sub-granting facilities within major climate funds (GCF, GEF, CIF) that enable municipalities, cooperatives, and community-based groups as implementers to access funds directly — rather than through national or multilateral intermediaries. Often, these intermediaries do not allow solutions to be built based on local contexts and needs as local groups, such as waste pickers, do not have the decisionmaking power in the grant design. This requires sub-granting facilities to integrate and promote participatory oversight to ensure transparency and accountability.

5

## Ensure Accountability and Transparency

Publish regular and open-access alignment reports showing portfolio consistency with the waste hierarchy, debt-risk exposure, and Just Transition safeguards. Public disclosure is essential to rebuild trust and demonstrate that institutions are implementing the principles they have already endorsed.

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## 4.1.3 For the UNFCCC Process

1

### Institutionalize Zero Waste in the NCQG

The NCQG must explicitly recognize **waste — both organic waste and plastics—** as priority sectors for mitigation and adaptation finance. It should include sub-targets for methane reduction through organic waste management.

2

### Embed Waste Metrics into the Global Stocktake and NCQG Reporting

Integrate justice metrics — jobs created, livelihoods formalized, community access improved — into the Global Stocktake and NCQG monitoring frameworks, making equity a visible measure of climate progress.

3

### Align Sustainable- and Climate-Finance Taxonomies with the Waste Hierarchy

Encourage all Parties and multilateral institutions to adopt finance taxonomies that exclude false solutions and channel finance to prevention, reuse, and composting.

4

### Ensure Predictability and Grant Dominance in Implementation Finance

Commitments under the NCQG should emphasize **predictable, grant-based** flows to the waste sector, avoiding debt-driven or market-dependent mechanisms.

5

### Foster Coherence Across Just-Transition Frameworks

Encourage convergence between the UNFCCC's Just Transition workstreams and initiatives such as JETP, CIF, and the ILO's Guidelines on Just Transition ensuring waste sector workers, particularly informal waste pickers, are fully recognized within global frameworks.

# 4.2 Pitfalls to Avoid

Avoiding these pitfalls is as important as adopting new commitments. COP30 must avoid repeating the mistakes that have trapped waste sector finance in inequity and inefficiency:

## Fragmentation and Projectization

Short-term, donor-driven projects undermine systemic change. Zero waste requires long-term programmatic finance and public-service continuity

## Overreliance on Market Mechanisms and Offsets

Various credit schemes, including carbon and plastic credits, remain volatile, opaque, and inequitable. Relying on market mechanisms is not only risky but also unjust.

- Historically these markets are volatile and plagued by scandals.
- Most revenues flow to intermediaries, not implementers.
- They allow polluters to "buy time" instead of cutting emissions.
- Offsets must never replace public finance or delay emission reductions.

## Debt Traps and Fiscal Vulnerability

Loan-heavy financing, especially for capital-intensive infrastructure like WTE incineration, deepens debt and locks countries and cities into high-emission trajectories for decades.

## Private-Sector Capture and Greenwashing

While the private sector has a role, waste management as an essential public service must avoid dependency on private operations. Therefore, governments shall avoid financing corporate-led "circular-economy" projects that depend on continued waste generation. Climate finance must serve public goods, not corporate growth. Large waste corporations often rebrand WTE incineration and recycling as "circular economy" projects — a narrative that perpetuates dependence on waste feedstock.

## Exclusion of Workers and Communities

Just transition cannot be symbolic. It requires direct participation, social dialogue, and protection measures embedded in every stage of financing and implementation.

## Misuse of Internationally Transferred Mitigation Outcomes (ITMOs)

While Article 6.2 mechanisms may open new finance sources, they carry **risks of double-counting and inequitable benefit sharing.** They must be supplementary, rights-based, **and never a substitute for direct public finance.**

# Conclusion: From Belém to Implementation and Justice

The decisions taken at COP30 will determine whether climate finance accelerates or obstructs systemic transformation. The waste sector sits at the heart of this test: it is where the world can most tangibly prove that **implementation and justice can advance together.**

Across cities, cooperatives, and communities, zero waste systems have already demonstrated what equitable climate action looks like: fast methane reduction, dignified employment, and strengthened local economies. These are not theoretical solutions — they are operating today, often with minimal support, delivering climate and development results simultaneously. The task for Belém is not to invent new models, but to fund the ones that already work.

Achieving this will require reorienting finance away from profit-driven infrastructure toward public-service systems that sustain people and the planet. It means recognizing labor, care, and local knowledge as forms of climate investment. It also means ensuring that grants, not debt, power essential public services, and that communities who prevent emissions are no longer last in line for support.

If Parties ensure that climate finance flows to those building solutions from the ground up, **Belém will be remembered not just as the COP of Implementation, but as the COP of Justice** — the moment when the promise of climate finance was finally fulfilled and community-driven, zero waste transformation became the new global standard.

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## About GAIA

GAIA is a network of grassroots groups as well as national and regional alliances representing more than 1000 organizations from over 100 countries. With our work we aim to catalyze a global shift towards environmental justice by strengthening grassroots social movements that advance solutions to waste and pollution. We envision a just, Zero Waste world built on respect for ecological limits and community rights, where people are free from the burden of toxic pollution, and resources are sustainably conserved, not burned or dumped.

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