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CLIMATE FINANCE: FROM HARMFUL TO IMPACTFUL

Driving transformative action on waste methane and environmental justice

gaia

Index

Executive Summary

Climate finance needs to move from harmful to impactful - also in the waste sector, where 99% of climate finance for methane reduction goes to waste-to-energy incineration, a highly problematic industry responsible for climate change, air pollution, indebtedness of global south countries, and loss of livelihoods in vulnerable communities.

In comparison to others, the waste sector is severely underfunded, despite having an annual methane abatement potential of 22Mt CH4 by 2030, the 2nd largest from the top three sectors (fossil fuel, waste, and AFOLU). But, it only receives USD 6.1 billion compared to the AFOLU sector with USD 7.5 billion and the fossil fuel sector with USD 10.6 million.

Climate finance needs to shift to be accessible to already successful, community-led projects that lead to the greatest economic, social, and environmental impacts. NDCs need to support such action in alignment with the Environmental Justice Principles for Fast Action on Waste and Methane. In 2021, GAIA found that most NDCs (39 out of 99 NDCs) supported waste-to-energy incineration and RDFs.

Climate solutions, including organic waste reduction, food loss and food waste reduction, source separation and treatment of organic discards in high-impact treatments such as composting and biogas, are low-cost, scalable and easy to implement anywhere in the world. Ultimately, successful community-led projects lead to the greatest economic, social, and environmental impacts.

Climate Finance at COP 29

At COP29, the "new collective quantified goal on climate finance" (NCQG) must channel greater funds toward urgently needed climate action in the Global South. This financial support will be critical for countries to step up their climate ambitions in the next round of national climate plans (NDCs), which are due in 2025.

The UN Framework Convention on Climate Change, subsequent COPs, Paris Agreement, etc. commits richer economies to the delivery of climate finance for the Global South, an obligation that is also part of reparations for climate debt caused by their disproportionately large contributions to the climate crisis. It is well within the power of governments of the Global North to raise public funds to meet their obligations. Governments should tax polluting industries and profiteers, stop subsidizing fossil fuels and waste disposal polluting industries such as waste-to-energy incineration, Refuse-Derived-Fuel (RDF) production, cement production, petrochemicals, etc, and spending for military arms and operations. At COP29, GAIA joins the climate justice movement to say #PayUp for Climate Finance now.

Most importantly, quality – not just quantity – matters in the new climate finance goal. High-quality climate finance should not create additional burdens and has clear pathways to access for countries and communities in need. This must be done by operationalizing qualitative principles, including but not limited to access and accessibility, responsiveness to marginalized groups and stakeholders, a human rights-based approach, additionality and non-exacerbation of debt crises.

What is wrong?
A harmful financial trend

The waste sector is the third-largest source of anthropogenic methane emissions worldwide, contributing roughly 20% of all such emissions. Methane in the waste sector is produced when biodegradable material, including food, garden clippings, human waste, wood and paper break down in dumpsites, landfills or sewage treatment environments that restrict oxygen. Municipal solid waste (MSW) is of particular concern, as it is responsible for the majority of waste sector emissions. In some regions, landfills are even the primary source of all methane emissions.

Despite two-thirds of methane abatement funding being directed towards the waste sector, the sector remains underfunded. The majority of this finance comes from the private sector particularly to finance waste-to-energy technologies, where commercial viability at scale is established (CPI, 2022). However, this viability is only feasible when significant public subsidy schemes are in place. A recent report by CPI on Landscape of Methane Abatement Finance shows that 99% of methane abatement finance in the waste sector is allocated to waste-to-energy incinerators (4.08 billion USD) and only 1% goes to organic waste management (22 million USD). The private sector was responsible for 54% of waste finance, driven by waste-to-energy incinerators (CPI, 2023).

This is a harmful trend: waste-to-energy incinerators are large net CO2 contributors to the atmosphere, so reducing landfill methane emissions through this industrial technology comes at the cost of increasing overall CO2 emissions, in addition to harmful pollutants and further negative impact for livelihoods and local economies.

Waste incineration is the most expensive and the most carbon-intensive technology with the least job creation potential that moves countries away from their climate target. Waste incineration has failed in many places such as the U.S. and Europe. There has been a strong push from local communities and waste picker groups around the world against waste incineration as it harms people's well-being and livelihoods.

The counterproductive nature of waste incineration is increasingly recognized by sustainable finance authorities. The Joint MDB Methodological Principles for Assessment of Paris Agreement Alignment suggests MDBs to finance projects that follow the waste hierarchy (Universally Aligned List of Activities), namely separate waste collection (in preparation for reuse and recycling), composting and anaerobic digestion of biowaste, material recovery, and landfill gas recovery from closed landfills.

Moreover, in recent years there have been many sustainable finance taxonomies such as the European Union Sustainable Finance Taxonomy (EU Taxonomy) which excluded waste-to-energy incineration from a list of economic activities considered 'sustainable finance'. Similarly, the regional ASEAN Taxonomy for Sustainable Finance defines incineration as an activity that "Do Significant Harm" and directs finance to activities that minimizes waste incineration, avoids the disposal of waste, including landfilling, and follows the principles of the waste hierarchy.

And yet, government-to-government finance and multilateral finance are not following the waste hierarchy as directed by these taxonomies and joint MDB Paris Alignment documents published in June 2023. In the first place, despite WTE incineration not included in the MDB list of activities aligned with the Paris Agreement, it is not then added to the List of Activities Considered Universally Not Aligned. Moreover, the MDB methodology allows MDBs to finance WTE incineration as long as countries' NDCs and Long-Term Strategies include it as part of their mitigation plan. The overall framework document The Common Principles for Climate Mitigation Finance Tracking agreed by 11 MDBs in December 2023 actually includes waste-to-energy incineration, Refuse Derived Fuel (RDF) or Solid Recovered Fuel (SRF) as eligible activities thus allowing for consistent accounting and reporting of financial flows for climate change mitigation finance. It also refers to the EU Best Available Techniques (BAT) Reference Document for Waste Incineration as a guidance for implementation, thus contradicting the EU Taxonomy and the Joint MDB Agreement's direction on following the waste hierarchy.

Moreover, investments are often driven by the use of limited investment success indicators such as profitability, while ignoring accurate GHG reduction assessments and co-benefits. As an essential public service, waste management brings more benefits than just cleanliness and greenhouse gas prevention. It's a driver for job creation, improved air quality, environment and environmental health. When it comes to zero waste as a solution to the waste and climate crises, the co-benefits are even greater.

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This financial trend is harmful and generally insufficient. Unstrategic or misdirected finance will not drive effective climate action in the waste sector. Without sustainable finance criteria, additional finance may just exacerbate the current harmful trend.

What are the solutions?

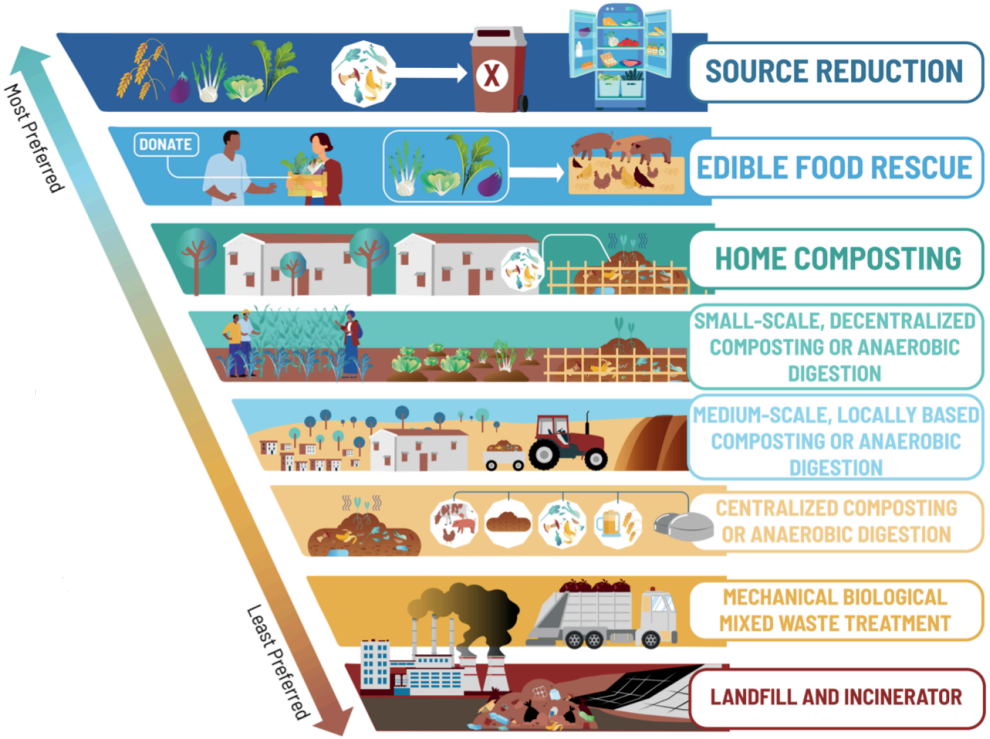
A helpful horizon at the top of the waste hierarchy

Solutions at the top of the waste hierarchy have the biggest climate impact, deliver the fastest impact, and generate the most core benefits. This is crucial to deliver timely climate action from the waste sector and accomplish the goal of both the Paris Agreement and the Global Methane Pledge, as fast action on methane gives us the best chance to lower peak warming if done alongside a fast decarbonisation of our economies. The core benefits delivered by solutions at the higher hierarchy will help countries to deliver a just transition process in the waste sector, enhancing green job creation at the local level.

Over 550 municipalities around the world are already implementing zero waste strategies with a commitment to continually reduce waste through source reduction, separate collection, composting, and recycling, in a wide range of economic, social, climatic, and legal contexts. These systems are cost-effective to implement and produce fast results.

Most importantly, separate organic waste management offers an opportunity to integrate and support informal sector workers who have provided valuable waste management services to their communities for decades. New jobs in collection, outreach and education, compliance monitoring and processing at decentralized or centralized facilities can provide stable livelihoods at higher rates than conventional disposal methods. [1]

These jobs can also provide a critical alternative livelihood to plastic collection as the world moves to implement zero-waste goals such as developing global targets for the reduction of plastic production.



Source: Institute for Local Self-Reliance

[1] *Global Alliance for Incinerator Alternatives (2021) Zero waste and economic recovery: The job creation potential of zero waste.*

Zero Waste Projects Map

These projects illustrate the enormous potential to achieve rapid action on reducing methane emissions from the waste sector by dedicating climate finance to scaling up proven organic waste management strategies with demonstrable co-benefits for livelihoods, quality of life, governance, and community health, both in identified priority countries and elsewhere.

1. In Dar Es Salaam, Tanzania, the groundbreaking zero waste initiative led by Nipe Fagio has secured funding for its expansion.

In Dar Es Salaam, Tanzania: the successful zero waste model in Bonyokwa ward collects 1.74 tonnes of waste daily from 4.500 households (95% of households), achieving 95% diversion (source segregation rate) and 100% of organic waste diversion from disposal. This is equivalent to a reduction of 16.4 tonnes of methane emissions per year. This groundbreaking experience has opened doors for further engagement with the Tanzanian government, several municipalities in Dar es Salaam and other important players such as the World Bank, GIZ, USAID, and C40. Moreover, the Zero Waste Academies received more than 400 applicants across Africa (2023-2024) and provided microgrants for zero waste implementation in 9 African countries, launching the Africa Zero Waste Alliance to have a collaborative space for mutual support.

2. In Brazil: more than 20 waste picker organizations are to implement organic waste recycling systems, including two in big cities São Paulo and Brasília.

The national government has launched the National Strategy for Municipal Biowaste focused on promoting food waste prevention, food rescue, composting and anaerobic digestion, and announced funds (over 70 M USD) to support waste pickers' work, prioritizing funding on organic waste recycling. In preparation for its implementation, Instituto POLIS has led the delivery of training in around 400 municipalities, support for more than 20 waste picker organizations to implement organic waste recycling systems, including two in big cities São Paulo and Brasília, and 41 waste picker organizations are promoting their work with organic waste.

3. In the Philippines, the Zero Waste Cities Network was launched with 37 cities uptaking the Cities Methane Pledge, committing to reduce 70% of their methane emissions from waste by 2030.

In 2023, the Zero Waste Cities Network was launched in the Philippines with 37 founding members, 30 were local government officials. This year, 16 officials formed the network's leadership, chaired by Vice Governor Mei Ling Quezon of Siquijor while Vice Mayor Benedict Jasper Lagman of City of San Fernando Pampanga as the President, with a commitment to implementing and advocating transformative practices rooted in the principles of equity, inclusivity, and dignity. Meanwhile, the Philippine National Waste Workers Alliance (PNWWA) was established in February 2024, uniting over 1,000 waste workers from seven regions to advocate for their rights. Key demands include labour standards enforcement, hazard pay, health insurance, job security, just compensation, safe working conditions, training, right to organise and meaningful participation in policy spaces.

4. In Durban, South Africa: zero waste project started in one market now ready to scale up and recover waste from 3 markets, including 3rd biggest in the country, creating four jobs per 400 tons of waste processed.

In Durban, South Africa, food waste from the Warwick markets has been transformed into nutrient-rich compost for the Durban Botanic Garden, helping to reduce landfill costs, which are estimated to be approximately USD 93 per ton of waste in Durban. The project team is aiming to scale up and compost the total 400 tonnes of organic waste generated by the market every year. Moreover, work has started on a second market and plans are to expand to the Clairwood Market, the 3rd biggest in the country. In the longer term, the project team is targeting all nine fresh fruit and vegetable markets in Durban, proving the model's feasibility and efficacy on a larger scale. As this project is scaled up, composting is estimated to create four jobs per 400 tons of waste processed.

5. In Accra, Ghana, GAYO's work on methane reduction with organic waste treatment project was named finalist for the world's most prestigious environmental prize in the clean air category.

The organization Green Youth Africa Organization (GAYO) has expanded their Zero Waste Accra project, now working with 5 municipalities. This initiative, recently nominated to the Earthshot Prize 2024, focuses on integrating informal waste workers into city waste management systems, promoting waste segregation at source, and improving air quality through avoiding waste burning. To date, over 600 marginalized informal waste workers have been integrated into the municipal waste management system, providing them with stable employment and improving their livelihoods. Furthermore, waste workers and local communities have received training on composting, mushroom production and urban gardening.

6. In Europe, there are nearly 500 municipalities now who are committed to zero waste, led by the world's first Zero Waste Cities Certification. Many of these zero waste cities implement the continent's best practices on organic waste reduction and management.

Milan, Italy. Milan is one of the best examples of how a big metropolis city, with an extremely diverse population in a densely populated area, can effectively establish a high performing organic waste management system. In Milan, 95kgs of organics is collected per person each year, just above 80% of all organic waste generated.

Salacea, Romania. Salacea provides a brilliant example of what impact can be had in a small space of time by implementing the right measures. Salacea is a small, rural municipality that in just 3 months, through installing a door-to-door separate collection model of organics, with a big investment in community education, achieved very impressive results - going from 1% to 61% separate collection of municipal waste and also reducing waste sent to landfill by 40%.

Partizanske (Slovakia). Partizanske is a town of 22,000 with a mix of multi-apartment buildings and single-family households. The municipality invested heavily in a new model to increase both composting and separate collection of food waste, supplemented by a vast awareness raising programme. This resulted in residual waste being reduced by 57 kgs per person within a year through more organics being composted, at home and at a central plant.

7. In Valparaíso, Chile, a collaboration amongst national and local cooperatives of waste pickers with local authorities is planning to launch an innovative pilot project for organic waste treatment for 500 households.

Valparaíso, Chile: the national association of waste pickers ANARCH (Asociación Nacional de Recicladores de Chile) in collaboration with the cooperative of recyclers in Valparaíso and the local authorities is undertaking a pilot project to establish source separation, separate collection and high impact treatment of organic waste at the El Molle Waste Transfer Center. The project will serve 500 households in Valparaiso downtown and will provide valuable insights about the feasibility of the business model. Moreover, the project is planning to include a space for educational purposes to raise awareness amongst citizens and further encourage source separation of waste.

8. In the US, newly secured funding for regrants to environmental justice organizations in the US to implement methane reduction programs.

Across the US, grassroots organizations are composting food scraps in community compost sites. Such programs maximize the benefits to the community, such as providing healthy nutrients to urban farms. For example, in 2021 alone, Detroit's widespread and decentralized network of urban farmers and community composters kept 2500 tons of food scraps out of the regional landfill.

Climate finance is needed for the long run

Despite the enormous potential of zero waste projects, the low volume of financial flows to organic management projects suggests that not enough is being invested to distribute and scale projects, such as composting facilities worldwide, or that current finance flows are not significant enough to be visible.

Moreover, the scant finance programs that do exist in the waste sector tend to target infrastructure building (capital costs), and cities are left with the burden of operational costs for decades —almost 20 years in the case of landfills and incineration—. It is often the case that installed facilities are left unused due to lack of budget for operational expenditures.

Operating costs are almost always substantially higher than capital costs for investments and are often the most challenging to sustain. Even when capital costs are accounted for (often funded separately, for example, with national government subsidies), operational expenditures can easily account for at least 70%of the total required budget for waste management. Across collection and disposal operations, waste collection typically accounts for 60–70% of the total cost.

Market-based approaches that rely on the value of recovered materials for recycling, both dry and organic, tend to be consistently insufficient to cover the total costs of waste management systems. The systems require ongoing funding to prevent waste leaking into the environment and causing additional and higher costs. Essentially, existing financing mechanisms and instruments are not always fit-for-purpose, especially to cover operational costs.

Call to action

NDCs 3.0 need to be aligned with the Environmental Justice Principles for Fast Action on Methane and Waste and ensure delivery of core benefits beyond climate change mitigation.

As countries are due to unveil new national climate commitments (NDCs) under the Paris Agreement, it is critical to establish ambitious waste methane mitigation in alignment with the Environmental Justice Principles for Fast Action on Waste and Methane. This is a critical tool for the successful implementation of organic waste diversion that can build community, waste worker, and local government buy-in and demonstrates the practical effectiveness of the zero waste strategies, including important co-benefits in livelihoods and environmental health.

Climate finance in the waste sector needs to move from harmful to impactful and radically shift from waste disposal towards scaling up and replicating already successful, community-led zero waste initiatives that can achieve the greatest core benefits.

Financing must prioritize higher solutions that have higher impact but also respect national and local governments' fiscal capacity, especially from the Global South that have highly limited resources. Solutions that are financed must be affordable in the long run for local government to operate.

Waste management is an essential public service, vital to urban infrastructure and environmental sustainability. Governments must allocate public funds to waste management responsibly, serving the needs and interests of the public, including the needs and interests of waste pickers and waste workers as front liners in waste management, especially in the Global South.

Require greater transparency from climate finance in the waste sector to ensure appropriate monitoring and accessible support to upstream solutions.

Enhancing climate finance transparency is essential to achieving mitigation and adaptation goals. In the case of the waste sector, it is critical to identify climate finance flows and account for the amounts directed to the upper options in the waste hierarchy. This transparent reporting is crucial for demonstrating climate progress in the waste sector, shifting the current harmful climate finance trend, building trust, and strengthening accountability.

Further Information

- Cutting Methane Emissions through Zero Food Waste System (GAIA 2024)
- Environmental Justice Principles for Fast Action on Waste and Methane
- A Key to Rapid Methane Reductions: Keeping Organic Waste From Landfills (GAIA 2024)
- https://www.no-burn.org/gaiacop29
- Zero Waste Model: Dar Es Salaam Case Study (GAIA, Nipe Fagio 2024)
- Zero Waste to Zero Emissions (GAIA 2022)

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GAIA is a network of grassroots groups as well as national and regional alliances representing more than 1000 organizations from 92 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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