

Governance and Policy Enablers for Waste Sector Transformation and Circular Economy

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Introduction



Waste contributes
3-5%
of global GHG
emissions (mainly
methane).



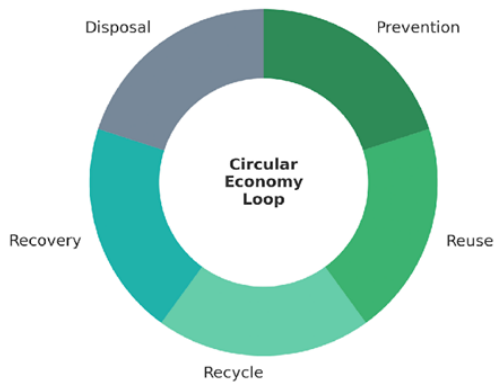
Methane is
80x
more potent
than CO₂ over
20 years.



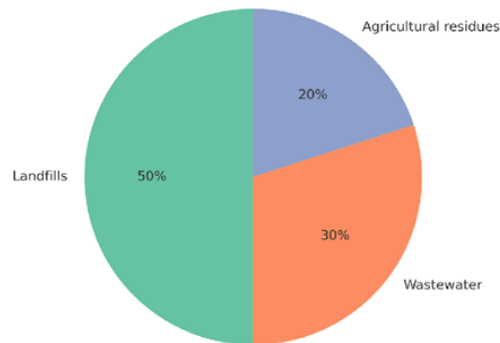
Global waste
expected to rise
70%
by 2050 approx.
3.40 billion tonnes
in 2050 (World Bank)

Waste Sector & Circular Economy Context

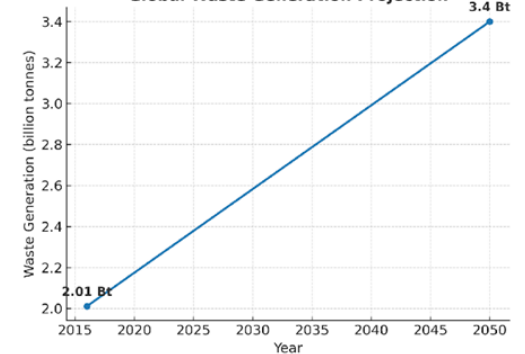
Circular Economy Loop
Waste Hierarchy & Circular Economy



Methane Sources
Methane Emissions from Waste Sources



Global Waste Growth
Global Waste Generation Projection



Emissions from wastes



Africa generates
244 million
tonnes of MSW in 2025

Up to
90%
is mismanaged
(open dumping,
burning)



Informal sector handles
30–60%
of urban waste.

We collectively emit
11+ tonnes
of methane globally every
second, or **366 million**
tonnes every year.

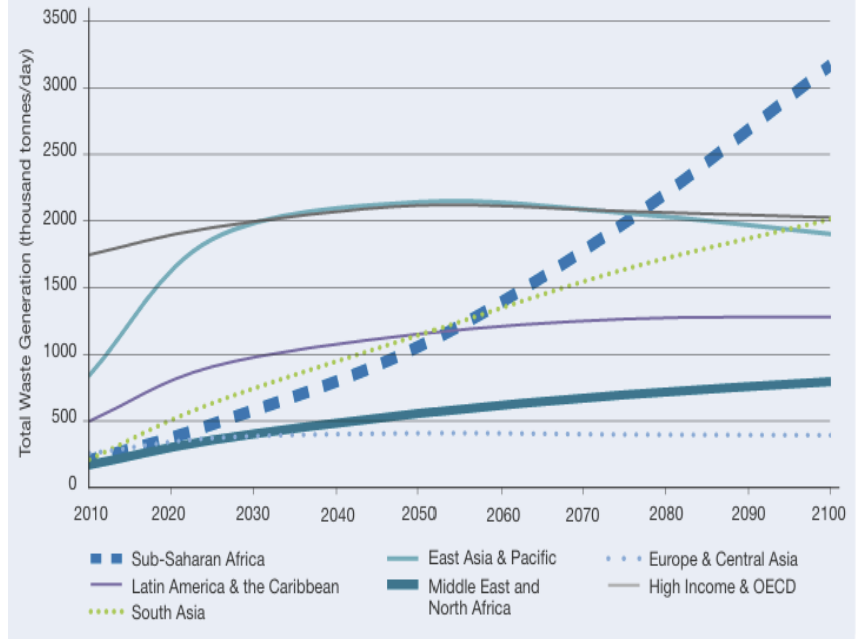


Since 2000, the amount of
methane emitted every year
has increased by almost
20%

This has already caused half a degree of warming.

The current rate of increase in methane emissions is just under 1% per year at a time when we need to be reducing methane emissions by more than 5% per year to achieve the Global Methane Pledge

Total MSW generation by region



Agriculture and waste emit **60%** of global methane emissions.



Agriculture emits **139 million tonnes** of methane per year, **38%**



Waste management accounts for

22%

of global methane emissions, split almost equally between municipal solid waste, and wastewater treatment.

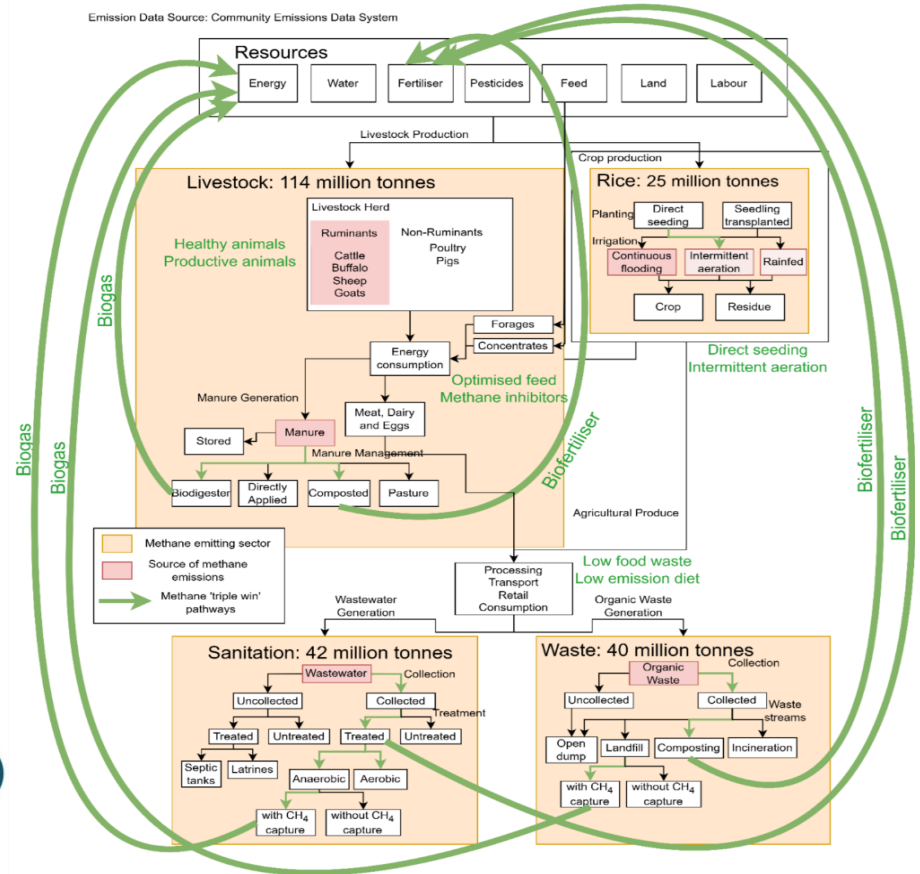


Circular economy unlocks resource efficiency and emissions reduction

Governance and policy = backbone of implementation

Sources and solutions to agriculture and waste methane

Emission Data Source: Community Emissions Data System



Why governance and policy

Coherence and Predictability

- Provide clear institutional frameworks
- Reduce fragmentation across ministries
- Ensure consistency from national to local levels

Finance and technology deployment

- Unlock private and public investment
- Support innovation and technology transfer
- Strengthen enabling environments



Equity and inclusion

- Include women, youth, and informal workers
- Ensure fair distribution of benefits
- Empower marginalized groups in waste value chains

Climate Alignment

- Connect NDCs and net-zero targets to local action
- Align waste policies with national climate strategies
- Link circular economy to long-term low-carbon development

Successful cases for Governance and Policy in Action

1. EUROPEAN commission circular economy (EC CE) action plan:

- Led to the successful mainstreaming of the circular economy into the European Union (EU) policy agenda.
- The EC CE Package sets new waste management targets for 2030,
- Increased share of municipal waste for reuse and recycling to 65%
- Increased share of packaging waste for reuse and recycling to 75%.
- The recycling of municipal waste increased
- Inspired Member States to develop their own circular economy agenda, such as in Hungary, Luxembourg, Slovenia and Spain.
- Inspired national roadmaps in Greece, Portugal and Romania.



Brussels, 11.3.2020
COM(2020) 98 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**A new Circular Economy Action Plan
For a cleaner and more competitive Europe**

2. Green deals initiative of the Netherlands:

- Green Deals support innovation domestically by testing circular ideas with government and offering solutions to regulatory and administrative hurdles.
- the government initiated over 229 Green Deals including energy, the bio-based economy, mobility, water, food, biodiversity, resources, construction and the climate.

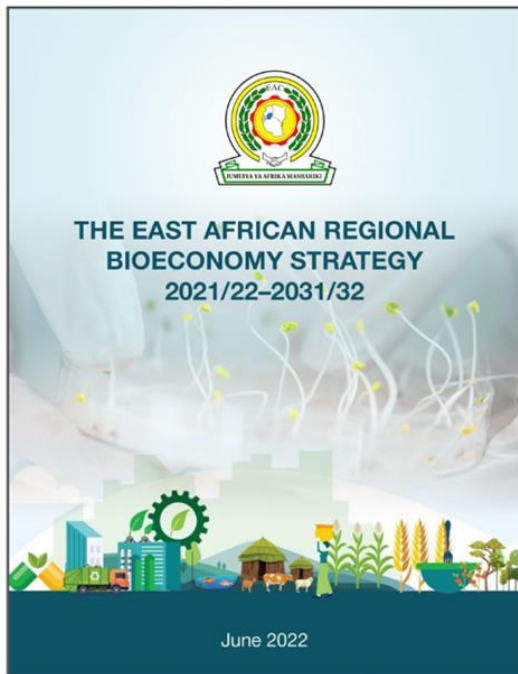


3. CHINA VAT policy on the comprehensive use of resources:

- implemented tax incentives that promote the circular economy by easing financial burdens on enterprises that recycle resources during production.
- Government introduced value-added tax refunds of 50% to 100% for specialized products such as recycled products.
- Industrial symbiosis embeds resource efficiency into industrial systems



The East African Regional Bioeconomy Strategy



Strategic Thematic Area 1:



Food security and sustainable agriculture :

- Value addition to food crops, livestock, forestry, marine and aquatic resources and microbial products
- Novel food and feed products
- Biobased agricultural inputs

Strategic Thematic Area 2:



Health and Wellbeing

- Biobased pharmaceuticals.
- Biobased traditional medicines
- Biobased cosmetics and well-being products

Strategic Thematic Area 3:



Biobased Industrial Development

- Biobased and biodegradable packaging materials
- Bioprocessing enzymes
- Biobased construction materials
- Biobased textile fibres
- Renewable biobased oils

Strategic Thematic Area 4:



Sustainable Energy :

- Biomass briquettes and pellets as alternative to charcoal and firewood
- Production of biogas from organic waste
- Advanced biofuels

Successful cases for Governance and Policy in Action

National frameworks

- **Africa:** Rwanda and Kenya plastic bans; South Africa, Kenya **EPR** for packaging/e-waste creating shared accountability across supply chains.

Multilevel governance and local action

- **Cities** (C40/ICLEI): zero-waste roadmaps, composting, food loss reduction.
- **Brazil:** Municipal waste plans aligned with national goals reinforcing vertical integration. .
- **Kenya counties:** Waste plans linked to NDC commitments showing how local action can contribute to global climate goals

Stakeholder engagement models

- **Colombia & India:** Informal waste pickers integrated into recycling services reducing emissions from open burning and improving livelihoods
- **Africa:** AfDB Circular Economy Facility → links governments, business and civil society aligning policies, mobilizing resources, and sharing knowledge
- **Results:** Reduced emissions, better livelihoods, stronger inclusion.
- These examples illustrate that governance and policy are not abstract ideas, they are practical levers for transformation

Challenges and barriers

Data gaps – Limited reliable data on waste volumes, composition, and emissions hampers evidence-based policy and tracking progress.

Exclusion of informal sector – Informal workers manage up to 60% of urban waste but are often left out of official strategies, weakening equity and climate benefits.

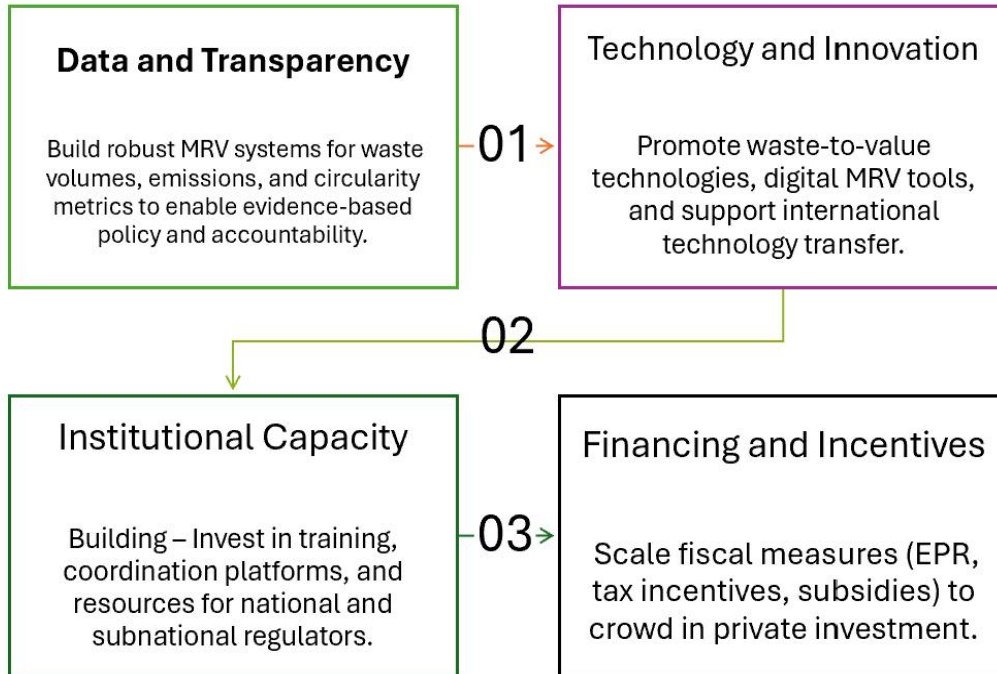
Weak enforcement capacity – Laws exist on paper but lack funding, monitoring, and institutional strength to be applied effectively.

Financing disconnect – Policies rarely include fiscal incentives (e.g., recycling tax breaks, landfill penalties), limiting private sector investment.

Policy fragmentation – Overlapping mandates across ministries (waste, climate, energy, environment) cause duplication, conflict, and inefficiency.

Equity concerns – Gender and youth perspectives are frequently overlooked, despite women and youth being key actors in waste value chains.

Enablers



What should we do then?

Bridging National Ambition and Local Implementation

Effective models align national frameworks with local delivery:

- **Integrated planning** – national policies cascaded into county/municipal plans (e.g., Brazil, Kenya).
- **Decentralized mandates** – empower local governments with resources and accountability.
- **Networks & platforms** – city coalitions (C40, ICLEI) help translate ambition into action.
- **Incentive mechanisms**

Strengthening Enforcement and Monitoring

Laws must be backed by capacity, funding, and accountability.

- **Capacity building** – train local regulators and provide tools for compliance.
- **Financial support** – earmark budgets for enforcement, not just policy design.
- **Digital MRV systems** – low-cost data tools for waste tracking and reporting.
- **Partnerships** – leverage civil society and private actors for monitoring support.

Ensuring Inclusivity

Equity is essential for effectiveness and legitimacy.

- **Formal recognition** – integrate informal waste workers into official systems.
- **Targeted inclusion** – women and youth involved in leadership and decision-making.
- **Fair benefits** – ensure access to training, finance, and social protection.
- **Participatory processes** – co-design solutions with affected groups to build trust and ownership.

THANK YOU