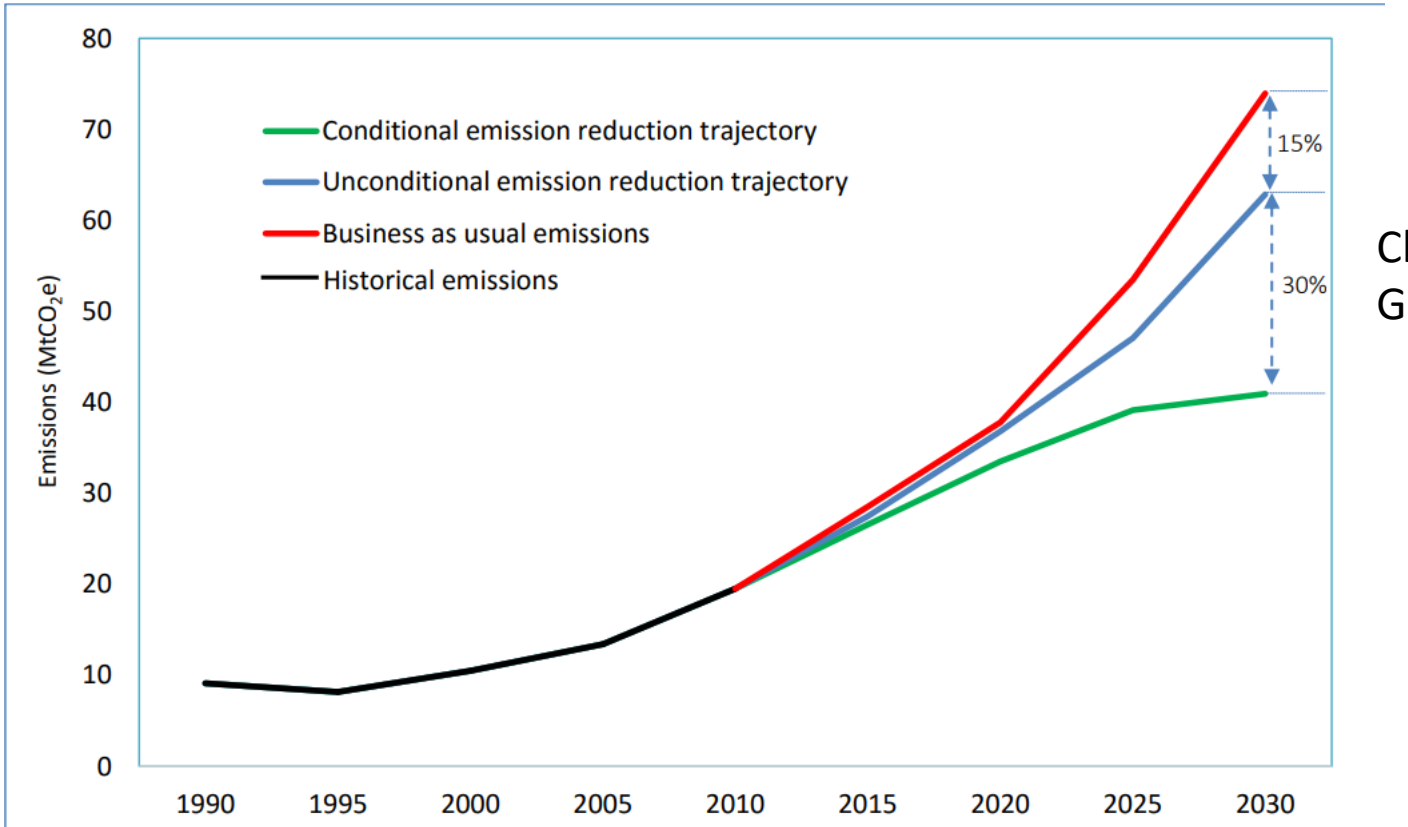
Integrated waste recycling and composting for methane reduction in Ghana

Advancing Public-Private Partnerships for Waste Management Practices

Webinar| 28th April 2022

Ghana's NDC & Waste Management



Click here to access Ghana's NDC.

Adopt alternative urban solid waste management	Improve effectiveness of urban solid collection from 70% to 90% by 2030 and disposed all to an engineered landfills for phase-out methane recovery from 40% in 2025 to 65% by 2030	• National sanitation strategy. • National bioenergy strategy. • National renewable energy Act (Act 832) • Environmental Protection Act (Act 490) • Environmental Assessment Regulation (LI. 1652) • Sustainable Energy Action Plan.	Conditional	15	• Job creation of about 9 million man hours for 15 years based 250 people working for 8 hours /day. • Improved urban sanitation and waste management. • Improved agricultural yield through the availability of organic fertilizer. • Reduced inorganic fertilizer bill to government
	Scale up 200 institutional biogas in senior high schools and prisons nation wide			5	
	Double the current waste to compost installed capacity of 180,000tonne/annum by 2030[15].			60	

Ghana's Article 6.2 Agreement & Carbon Finance

Read more [here]

Public Private Partnership to Tackle Waste

State of the Art Technology

Role of Carbon Finance

Click here to read the UNFCCC Article 6 decisions.

Roles & Responsibilities

Federal Office of the Environment, Switzerland

Pays UNDP an-ante for facilitation of development services to obtain ITMOs.

Pays UNDP ex-post for third party verified ITMOs

United Nations Development Programme

Provides development services to IRECOP.

Facilitates ITMO payment to the IRECOP

Facilitates transfer of ITMOs Switzerland through EPA

MESTI

Coordination of ITMOs programme.

Approval of:

Authorisation of mitigation activity

Issuances of ITMOs to IRECOP

Transfer of ITMOs to Switzerland

EPA

Leads the MRV of the ITMOs programme

Delivers ITMOs development support

Engages national stakeholders

Registration and Issuances

Reports mitigation outcomes to MESTI and transfer ITMOs to Switzerland

IRECOP

- Invest, Manages and operate three sorting, recovery and compost plant.
- Participate in MRV scheme for the ITMOs programme
- Create account on national registry to receive issued ITMOs
- Transfer ITMOs title to EPA for onward transfer to Switzerland.
- Receives payment for transfer of ITMOs to Switzerland
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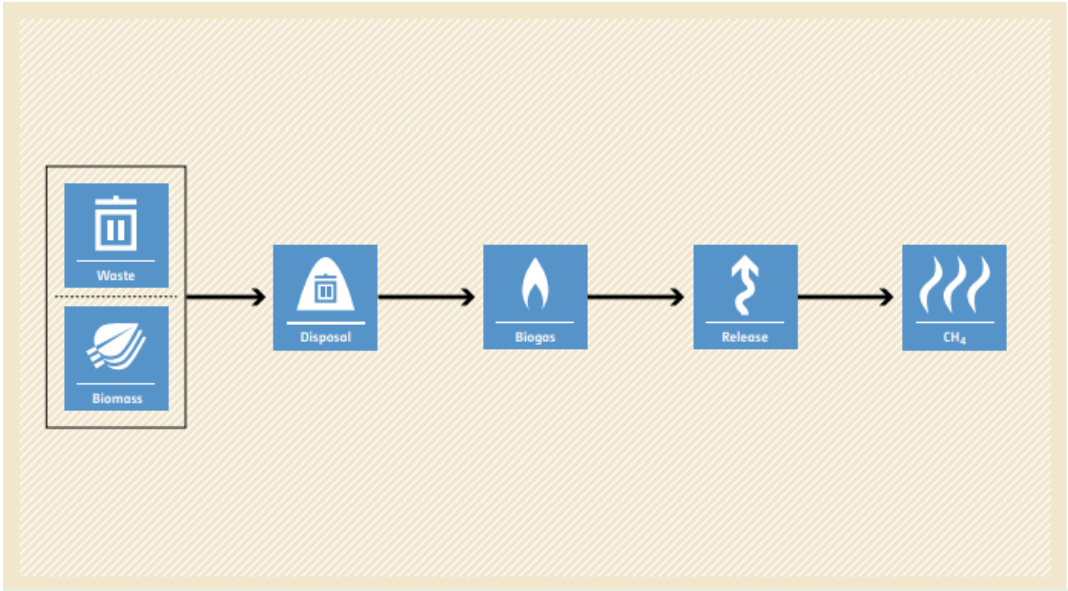
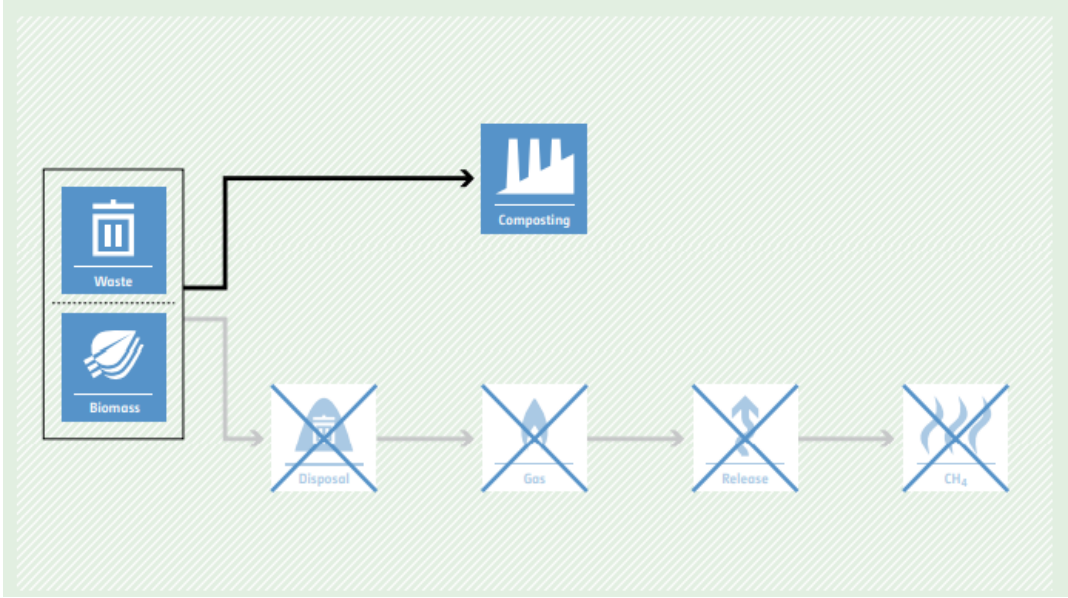
Baseline Determination & Project Scenario



BASELINE SCENARIO

Biomass and other organic matter (including manure where applicable) are left to decay and methane is emitted into the atmosphere.



PROJECT SCENARIO

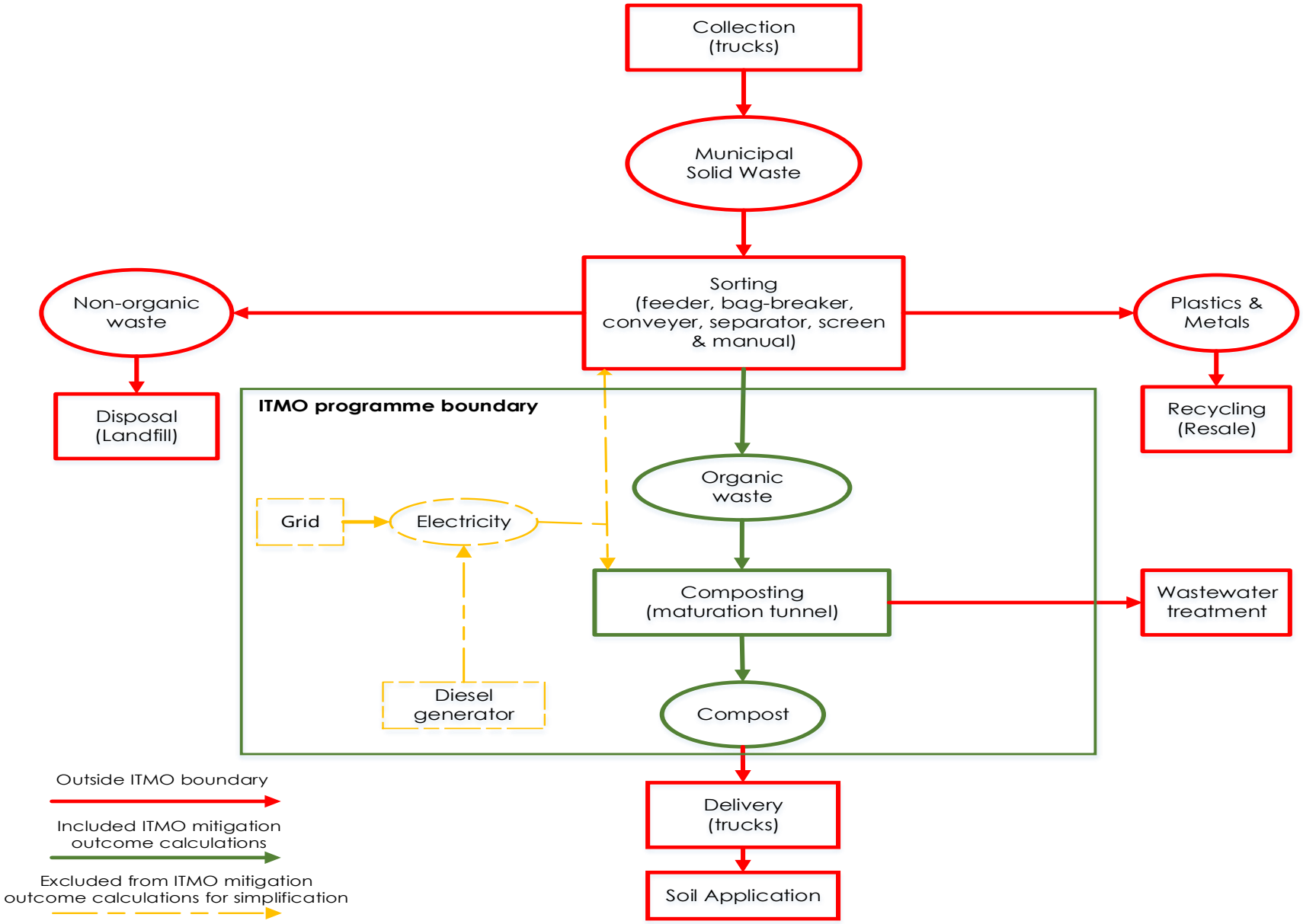
Methane emissions are avoided through composting.

UNDP DIGITAL

Promoting Sustainable Development

Click here to access the tool.

Monitoring & Reporting



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Mitigation Outcomes

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	Quantity of Waste (Q_y)	Baseline Emission (BE_y)	Project Emission			Emission Reductions (ER_y)	Revenues US$
			$PE_{comp.\ N2O}$	$PE_{comp,\ CH4}$	PE_{comp}		
2022	416,808	36,484	0	23,341	23,341	13,143	$170,860
2023	429,312	72,167	0	24,041	24,041	48,126	$625,634
2024	442,192	107,124	0	24,763	24,763	82,361	$1,070,698
2025	455,457	141,428	0	25,506	25,506	115,922	$1,506,990
2026	469,121	175,148	0	26,271	26,271	148,878	$1,935,409
2027	483,195	207,125	0	27,059	27,059	180,066	$2,340,855
2028	497,691	240,686	0	27,871	27,871	212,815	$2,766,600
2029	512,621	273,470	0	28,707	28,707	244,764	$3,181,926
2030	528,000	301,828	0	29,568	29,568	272,260	$3,539,378
						1,318,335	$17,138,350

Transformational Change

Activities: financial incentives and trainings for businesses to adopt and promote sustainable waste management practices, leading to:

Output: increased sustainability of waste management, leading to:
Outcome: lower carbon, all-inclusive development pathway established, leading to:

Impact: reduced GHG emissions, greater resilience to climate variability, poverty eradication, leading to:

Transformative change: widespread use of economically sustainable waste management across Accra.

For more Information:
Alexandra Soezer, Ph.D.

Global Carbon Technical Advisor - Energy
alexandra.soezer@undp.org