

#### RECYCLE ORGANICS PROGRAM SOUTH-TO-SOUTH SUPPORT

Promoting methane reduction from the waste sector in Latin America, Caribbean, Pacific, Africa and South Asia.

RECYCLE ORGANICS

March 2024 - Global Methane Forum



) ImplementaSur CCAP LEDS LAC

Environment and Climate Change Canada Environnement et Changement climatique Canada Global Methane Hub

Inter-American

Development Bank



We support the creation of enabling conditions to accelerate action in the global south.



Policy frameworks



02

Acceleration of project portfolios and MRV







Capacity building, awareness creation and south-to-south knowledge exchange

01

# What are we doing to mitigate the climate crisis from the global south?



Country	Pre-feasibility analyses (LFGE, AD, Large-Scale Composting, Home Composting, BSF)	Detailed Engineering	Implementation (projects and/or equipment)	Public policy (Action plans. Roadmaps, guidelines)	MRV frameworks and/or GHG inventories	Knowledge exchange (network building, training, workshop)
Chile	LFGE, LSC	LSC	Х	Х	Х	Х
💿 Argentina	-	-	-	-	Х	-
늘 Uruguay	LFGE, LSC, HC, AD	-	-	Х	-	Х
🌔 Peru	LFGE, LSC, HC, BSF	LSC		Х		Х
📀 Brazil	LFGE, LSC, HC, AD	-	-	Х	-	Х
🜔 Guyana	LSC, HC		Х	Х		Х
🗕 Colombia						Х
😑 Honduras	LFGE, LSC, HC, AD	-	-	х	-	Х
🛑 Costa Rica	LFGE, LSC, HC	LSC	-	Х	-	Х
🜗 Mexico	LFGE, AD, LSC	LSC	-	Х	-	Х
🛞 Belize	LSC, HC		Х	Х		Х
🛟 Dominican Republic	LSC					Х
😣 Grenada	LSC, HC		Х	Х		Х
🛆 Saint Lucia	AD, LSC, HC		Х			Х
🔫 Barbados						Х
🗲 Togo				Х	Х	Х
📀 Eswatini	X				Х	Х
🖸 Maldives				Х	Х	Х
🥪 Bhutan	X					
찬 Fiji	LFGE, AD, LSC		Х	Х		Х
🕘 Samoa	AD, LSC, HC		X	Х	Х	Х
💿 Guatemala	-	-	-	-	Х	-

#### **Transforming commitments into action plans**

Sectoral Mitigation Plan (PSM) for the waste sector in Chile







By 2030: 216 kton by home composting, 13 kton by composting in schools, 30% of municipal OW by LSC, 100% of landfills with LGCC systems, 30% of industrial OW by AD, 70% of Paper & Cardboard Recycling, 50% reduction in food waste.

## +70 enabling actions

to strengthen the institutional and regulatory waste management framework. The proposal encompasses regulatory, financial, capacity-building, and awareness-raising actions seeking to accelerate climate action. +25 MRV indicators

to track the progress and effectiveness of the measures and their co-benefits, as well as the impact of the PSM in sectoral gender gaps. Commissioned and funded by



Supported by



## **Opportunities to expand our impact**









Scale up and multiply already existing successful cases in the global south

Scale today is too small, and the built knowledge is not being shared effectively.

## Transform NDC targets into concrete investment sectoral plans

Incorporate methane mitigation in NDCs and develop waste mitigation plans to identify concrete actions to facilitate project implementation and

#### Provide technical assistance to local governments

Identify and evaluate most adequate projects and business models to advance climate action in the waste sector.

#### Improve capacities and promote knowledge sharing

Make the benefits of adequate organic waste management more visible to decision makers, implementers and generators.





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Funders:

Environment and Climate Change Canada Environnement et Changement climatique Canada





## Annexes

Project: Sectoral Mitigation Plan (PSM) for the waste sector in Chile



#### Waste sector d-Gemissions and targets

- In 2022, 84% of the total GHG emissions of the waste sector in Chile were produced by the disposal of solid waste in landfills (category 5.A of the National GHG Inventory).
- The Long-Term Climate Strategy establishes that between 2020-2050 the Ministry of Health (responsible for waste emissions) should achieve an approximate reduction of 28,4 Mt C02eq.



Waste Sector GHG emissions according to the National GHG Inventory



## Our job: preparing the process inputs



Understand the baseline scenario: waste generation and GHG emissions

Recognize and asses the progress of the waste sector, including previous agreements and goals

Interview multiple stakeholders to understand risk, barriers, needs and opportunities

Analyze international benchmark of mitigation measure alternatives for the waste sector Design a mitigation measures proposal that is align with the Long-Term Climate Strategy goals for the waste sector

Asses the GHG emission reduction potential and the emissions reduction trajectory (2024-2050) Identify the actions that the public sector should take to achieve key outcomes:

- 1. Having an enabling political and regulatory context
- 2. Having sufficient financing mechanisms
- 3. Building up technical capabilities and awareness

Identify the policy and regulatory instruments that should be modified or created to trigger those actions Select stakeholders that should be part of the official sectoral plan development process

Design a proposal for MRV indicators

#### MITGATION MEASURES PROPOSAL





## **ACTIONS AND NSTRUMENTS**







### Examples of policy and regulatory instruments



Direct OutcomeS	Example of actions	Example of policy and regulatory instruments			
	Establishing obligations on the capture	Modification of Regulation 189 to make landfill gas capture mandatory			
	and haring/use of fandhil gas	Creation of a Methane Emission Standard for landfills			
There is an enabling political and regulatory context	Strengthening of regional institutions	Replication of existing Operational Technical Committees to more regions in the country.			
	and planning process	Creation of Regional Strategic Plans for Waste Recovery			
	Establishing obligations for source separation of organic waste	Approval of the Bill that promotes the valorization of organic waste creating obligations for generators and management institutions			
Financing mechanisms exist	Improving the tariff setting and collection of fees for waste generation	Implementation of the Pay As You Throw tariff system. Development of a Regulation that establish the formula for estimating waste disposal rates as well as over-generation charges			
and are used	Securing funding for follow-up and monitoring activities that increase long-term use of domestic composting equipment	Modify criteria of awarding of existing public funds to ensure that initiatives include follow-up and monitoring stages in source-composting projects.			

### Examples of policy and regulatory instruments



Direct OutcomeS	Example of actions	Example of policy and regulatory instruments			
Thoro is an increase of	Building cross-cutting capacity for the implementation and operation of compositing and anaerobic digestion	Modification of Law 20.742 to expand the range of public professionals that can access SUBDERE Academy technical training			
technical capacities and awareness	centers	Expansion of SUBDERE Academy's to offer technical courses related to waste treatment chain			
	Promoting formal and non-formal education on organic waste for citizens	Elaboration and Implementation of the National Environmental Education Program on Organic Waste			

## Annexes Municipal composting: Economy of scale





#### **Municipal Composting**

#### **OPEX per ton of treated organic waste**



OPEX by treated ton (USD/TPY)



#### Treatment cost per ton: Landfill vs Municipal Composting

**Scenario**: Considering operational cost, transportation and selling of compost. Initial investment and carbon social value are not included

	Landfill treatment cost			Composting treatment cost				
Municipality	Collection and transportation cost per ton (CLP/t)	Current cost per ton disposed (CLP/t)	Total cost per ton (CLP/t)	Collection and transportation cost per ton (CLP/t)	Current cost per ton disposed (CLP/t)	Total cost per ton (CLP/t)	Treated tons per year (TPY)	Difference (%)
Rapa Nui	\$164.434	\$ -	\$164.434	\$164.434	\$76.042	\$240.476	504	-32%
Maipú	\$55.848	\$8.930	\$64.778	\$39.094	\$67.199	\$106.292	600	-39%
San Bernardo	\$19.522	\$10.633	\$30.155	\$13.665	\$45.033	\$58.698	828	-49%
Santa Juana	\$47.265	\$11.694	\$58.959	\$33.085	\$27.382	\$60.467	1.311	-2%
Melipilla	\$18.998	\$7.000	\$25.998	\$18.998	\$17.580	\$36.578	1.932	-29%
Ancud	\$15.723	\$16.000	\$31.723	\$11.006	\$15.565	\$26.571	. 2.143	19%
Castro	\$20.819	\$11.000	\$31.819	\$20.819	\$15.565	\$36.384	2.143	-13%
Talcahuano	\$43.387	\$18.133	\$61.520	\$43.387	\$12.774	\$56.161	. 2.521	10%
Dalcahue	\$9.835	\$9.835	\$19.670	\$9.835	\$4.232	\$14.067	3.603	40%
Quellón	\$10.630	\$10.630	\$21.260	\$13.819	\$4.115	\$17.934	3.603	19%
Puerto Varas	\$39.051	\$6.666	\$45.717	\$39.051	\$1.850	\$40.901	. 4.600	12%
Talca	\$18.934	\$5.400	\$24.334	\$18.934	\$1.620	\$20.554	6.056	18%
Caldera	\$16.700	\$6.500	\$23.200	\$16.700	\$208	\$16.908	7.666	37%
Villarrica	\$10.018	\$12.000	\$22.018	\$10.018	\$-425	\$9.594	8.466	130%