

Urban Solid Waste Treatment and Recovery Plant – Pacific Region

Contact information.	Subsector	Entidades Relacionadas.	ODS.
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National Development Plan (NDP) Alignment	
Productive Transformation, Internationalization, and Climate Action.	Regional Convergence.
	Circular Economy

ESG Considerations	
Environmental:	<ul style="list-style-type: none"> The project seeks to reduce the volume of organic waste disposed of in landfills while generating renewable energy (biogas) and organic fertilizers. It contributes to Colombia's national decarbonization goals.
Social:	<ul style="list-style-type: none"> The project's implementation requires the involvement of a broad range of stakeholders, including communities, personnel, customers, and local governments.
Governance:	<ul style="list-style-type: none"> Governance will be ensured through robust risk and opportunity management procedures. Requires coordination among public entities and updates to regulatory frameworks.

Business Overview	
Objectives.	<p>To install a treatment and recovery plant for urban solid waste in the Pacific Region, generating sustainable income from the sale of renewable energy and organic fertilizers.</p> <ul style="list-style-type: none"> Establish a business model based on a baseline volume of waste currently disposed of in landfills. Identify specific strategies to diversify project revenue through fertilizer production. Design contractual mechanisms for energy supply and waste disposal fees to ensure the long-term viability of the project.
Scopes.	<p>This project includes:</p> <ul style="list-style-type: none"> Conversion of organic waste into renewable energy and fertilizers in the Pacific Region. Success requires alignment among public entities and investors, and updates to public policies such as PGIRS (Comprehensive Solid Waste Management Plan) and POT (Land Use Plan). <p>This project excludes:</p> <ul style="list-style-type: none"> Development of regulatory frameworks, long-term waste supply agreements with municipalities, and creation of waste collection and sorting systems.

Business Overview	
Project Goals	<ul style="list-style-type: none"> - Reduce organic waste disposed of in landfills. - Generate renewable energy from biogas. - Produce organic fertilizers.
Market Opportunity.	<p>There is currently a critical issue in urban waste management in Colombia, where the majority of waste ends up in landfills, exacerbated by the growing volume of waste generated each year.</p> <p>The 2018 National Development Plan showed that only 14% of urban solid waste is recycled. This inefficiency creates a clear opportunity for a scalable, sustainable business solution—converting organic waste into value-added products—which reduces landfill dependency and creates new revenue streams.</p> <p>The value creation model focuses on transforming organic material into useful outputs: organic fertilizers for agriculture and energy in the form of biogas. This recovery of organic waste content results in tangible benefits for agriculture and the generation of cleaner energy sources.</p>



The value creation model revolves around the transformation of organic material into usable elements: **organic fertilizers for agriculture and energy in the form of biogas.**

Accordingly, the use of organic waste content would result in **sustainable agricultural benefits and the generation of cleaner energy sources.**

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Business Model				
Key Partners	Key Activities	Value propositions	Customer Relationships	Customer Segments
<ul style="list-style-type: none"> - Invest Pacific - IDB Invest - Santiago de Cali City Hall. 	<ul style="list-style-type: none"> - Prefeasibility and feasibility studies. - Policy alignment. - Plant construction. - Commissioning and operation. 	<ul style="list-style-type: none"> - Conversion of organic waste into renewable energy and fertilizers, contributing to the circular economy and the objectives of sustainability and decarbonization. 	<ul style="list-style-type: none"> - Long-term supply agreements with municipalities. - Sales agreements for energy and fertilizers. 	<ul style="list-style-type: none"> - Municipalities (waste disposal). - Municipalities (energy consumption). - Agricultural producers.
	Key Resources			
	<ul style="list-style-type: none"> - Anaerobic digestion technology. - Treatment and recovery plant. - Environmental permits. 	<ul style="list-style-type: none"> - Direct relationship with public administrations at the municipal and regional levels. 		
Cost Structure.			Revenue Streams	
<ul style="list-style-type: none"> - Waste collection and transportation systems. - Bioreactor maintenance. - Biogas storage systems. - Fertilizer storage systems. 			<ul style="list-style-type: none"> - Sale of energy. - Sale of fertilizers. - Solid waste management fees 	

Project Timeline		
Phase	Predecessor	Milestone
Prefeasibility studies	Letter of intent	Prefeasibility study
Feasibility studies	Prefeasibility studies	Feasibility studies
Policy alignment (PGIRS and POT)	Feasibility studies	Policies and POT defined
Plant construction	Policy alignment	Feasibility studies / Policies and POT defined
Commissioning and continuous operation	Commissioning	Start of operations

Financial Parameters – Cash Flow	
Revenue Parameters	Expense Parameters
Parameter (Unit)	Parameter (Unit)
Payment for the collection and transport of solid waste.	Cost of collection and transport of solid waste.
Biogas generated. Fertilizers generated.	Cost of waste processing, biogas storage and transport, fertilizer production and dispatch, and final disposal of remaining waste.



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Risk Management Plan					
Event	Probability	Impact	Rating	Mitigation	Contingency
Lack of coordination among public entities.	High	High	High	Establish an inter-institutional working group and a communication channel with relevant entities.	Resort to mediators or higher-level authorities to facilitate coordination and conflict resolution.
Regulatory frameworks supporting implementation.	Medium	High	High	Close collaboration with public entities	Seek support from the National Government and other key stakeholders.
Business stability and viability.	Medium	High	High	Long-term supply contracts with local governments	Establish financial contingency and rescue mechanisms.

End of the report.