

Chemical Plastic Recycling Plant – Pacific Region

Contact information.	Subsector	Entidades Relacionadas.	ODS.
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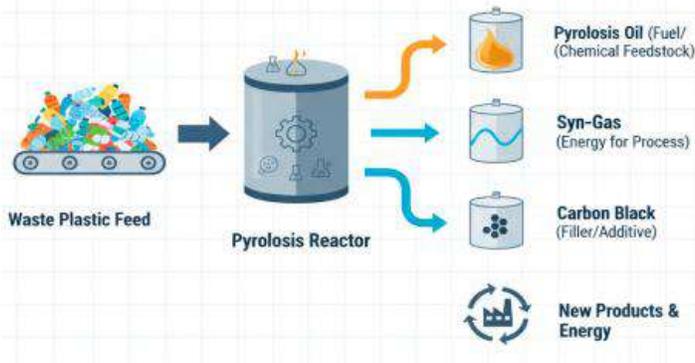
National Development Plan (NDP) Alignment	
Productive Transformation, Internationalization, and Climate Action.	Transition toward a productive economy based on respect for nature.
	Circular Economy

ESG Considerations	
Environmental:	Reduce plastic waste, recover resources, and decrease dependence on landfills. Contributes to Colombia's decarbonization and circular economy goals.
Social:	<p>-The project can have a positive social impact by promoting community participation and stakeholder involvement along the waste-management value chain.</p> <p>-Reducing pollution and creating employment are indirect benefits that enhance human security and social justice.</p>
Governance:	Governance is based on coordination with public actors, the updating of public policies (PGIRS and POT), and strict compliance with environmental regulations.

Business Overview	
Objectives.	<p>To develop, build, and operate a chemical recycling plant for hard-to-recover plastics, consolidating a sustainable and economically viable solution for plastic waste management in Colombia.</p> <ul style="list-style-type: none"> • Complete the prefeasibility study to validate the technical, economic, and environmental viability of the chemical recycling project within the context of the Pacific Region. • Identify and secure mechanisms that enable the effective participation of investors and technology partners in project execution. • Build sorting and pre-treatment centers to ensure a continuous and reliable supply of plastics. • Align the project with national and regional public policies to obtain an operational framework that maximizes implementation efficiency.
Scopes.	<p>This project includes:</p> <ul style="list-style-type: none"> • From the prefeasibility study phase (currently in progress) through to the commissioning of the chemical recycling plant.

Business Overview	
	<ul style="list-style-type: none"> Investment will cover technology acquisition, plant construction, and implementation of infrastructure for waste collection and pre-treatment. <p>This project excludes:</p> <ul style="list-style-type: none"> Financing of ongoing studies, focusing instead on capital investment during the implementation phase. Specific investment details, plant capacity, and final design depend on study outcomes.
Project Goals	<ul style="list-style-type: none"> Complete the prefeasibility study within the scheduled timeframe. Secure the investment required to advance to feasibility and construction stages. Sign purchase agreements for raw materials (plastic waste) and sales agreements for secondary products. Obtain environmental licenses and permits prior to construction start.
Market Opportunity.	<p>Market Conditions Colombia faces a growing challenge in plastic waste management. Approximately 70% of plastics are not recycled through mechanical methods, creating a major market opportunity for technologies such as pyrolysis.</p> <p>The chemical recycling plant will provide an industrial solution for this waste stream, meeting the needs of companies seeking to comply with sustainability targets.</p> <p>Exceptional Conditions This project introduces cutting-edge technology to address a critical environmental need.</p> <ul style="list-style-type: none"> Focuses on a high-potential niche market (hard-to-recycle plastics) with abundant supply and growing demand for recycled products. Participation of the Cali City Hall, IDB Invest, and a broad consortium of private-sector companies minimizes risk and ensures institutional support throughout project phases. Benefits from the global trend of ESG-focused investment, positioning it as a strategic asset in the transition toward a low-carbon, circular economy.

Chemical Pyrolysis: Waste-to-Resource Transformation



The added value model is built on a comprehensive business approach that transforms an environmental and social challenge into a sustainable investment opportunity.

Unlike mechanical recycling, which faces limitations when processing hard-to-recover plastics, **pyrolysis** can handle a wide range of plastic waste, converting it into **high-value market products**. This “**waste-to-resource**” process creates a new revenue stream from a material that currently represents a management cost and an environmental burden.

The final products of the process can be used as **fuels** or as **secondary raw materials** for the petrochemical industry.

By transforming a waste that would otherwise incur disposal costs, the project not only generates income but also captures value by eliminating an **environmental liability** for waste-generating companies.

Business Model				
Key Partners - Invest Pacific - IDB Invest - Santiago de Cali City Hall.	Key Activities - Prefeasibility and feasibility studies. - Plastic collection logistics. - Plant construction. - Commissioning and operation.	Value propositions - For waste providers: offers a sustainable solution for plastics that would otherwise become an environmental problem. - For customers: supplies high-quality secondary raw materials (hydrocarbon derivatives) as an alternative to virgin materials	Customer Relationships - Long-term agreements for waste supply. - Long-term contracts for the sale of final products.	Customer Segments - Companies or municipalities generating hard-to-recycle plastic waste. - Industries using organic derivatives and by-products.
	Key Resources - Pyrolysis technology. - Access to a constant source of plastic waste.		Channels - Direct relationship with companies and public administrations at the municipal and regional levels.	
Cost Structure. - Waste collection and transportation systems. - Maintenance of production facilities. - Operating expenses (OPEX).		Revenue Streams Sale of products resulting from pyrolysis (pyrolysis oil and other by-products), which can be used as fuels or as raw materials for the petrochemical industry.		

Project Timeline		
Phase	Predecessor	Milestone
Prefeasibility studies	Letter of intent	Prefeasibility study
Feasibility studies	Prefeasibility studies	Feasibility studies
Plant construction	Feasibility studies	Commissioning
Start-up and continuous operation	Commissioning	Start of operations

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Financial Parameters – Cash Flow	
Revenue Parameters	Expense Parameters
Parameter (Unit)	Parameter (Unit)
Payment for the collection and transport of non-mechanically recyclable plastics	Cost of collection and transport of solid waste.
Sale of organic products derived from pyrolysis processes.	Cost of waste processing.



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.