

Welcome to the step-by-step process to complete the financial model of project *PROMAR Colombia*.

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INTRODUCTION

PROMAR project has developed various tools to maximize the use of waste with the primary objective of preventing waste from reaching the sea. This approach does not only contribute to environmental conservation, but it also enhances the business model of organizations involved in waste recycling and management.

The following instructions aim at guiding organizations in creating a robust financial model that may ensure the economic viability of their operations. A detailed and structured methodology provides a framework for investment planning, operational cost analysis, and revenue projection. By following the guidelines below, entities may set up not only a sustainable but also a profitable financial scenario.

The document covers everything from identifying and quantifying necessary initial investments to assessing recurring expenses and resource optimization. Additionally, it emphasizes continuous and adaptive financial management to respond efficiently to changes in market and operating conditions. Thus, the guide seeks to empower organizations to meet their environmental objectives and achieve sustainable and scalable profitability over time.

Organization Description

Price Table

Open the folder where the document is stored. Then, go to the 'Price Table' tab.

The screenshot shows an Excel spreadsheet titled 'Formato - Modelo financiero.xlsx'. The active tab is 'TABLA DE PRECIOS'. The table has the following columns: Cód., Tipo de material, Caracterización, Precio Unidad (\$), Cantidad (kg/día), Precio Total (\$), Precio Unidad (\$) Comercialización, Precio Total (\$) con % de Beneficio, Ingreso por prestación de servicio de aprovechamiento, Valor de venta de material transformado (Paseo/kg), Porcentaje de material transformado, and Precio Total (\$) con % de Beneficio de transformación. The rows are labeled P001 through P020. A red box highlights the 'Cantidad (kg/día)' column for row P020. On the right side, a list of parameters is visible, including: NUMERO DE TRICL., CAPACIDAD DE CARGO, NUMERO DE VIAJES, KILOGRAMOS AL ME, % DE BENEFICIO, PRECIO PROMEDIO, COSTOS FLUJOS MEN, COSTOS FLUJOS UNIT., COSTOS TOTALES, TARIFA DE APPROVEC, CANTIDAD DE MATER ACTUALMENTE POR, and % DE PARTICIPACION ORGANIZACION.

The image shows a Price Table that details the price of different recyclable materials that the organization collects and markets. The key elements of the table are explained below:

Table Columns

- **Material Type:** The type of recyclable material, such as scrap copper, bronze, aluminum, PET, cardboard, etc.

- **Characterization:** The percentage of the total material for each type, stating the relative proportion of each material among the total collection.
- **Unit Price (\$):** The price per kilogram for each type of material, which reflects the market value.
- **Quantity (Kg/day):** The amount of material in kilograms collected daily.
- **Total Price (\$):** Calculated by multiplying the daily quantity by the unit price. This amount reflects the potential daily income from the sale of each material type.
- **Unit Price (\$) Sales:** The selling price of the material after the commercialization process, which may include additional processing or transportation costs.
- **Total Price (\$) with Profit %:** The total income expected from the sale of each type of material, including a profit margin. It is calculated based on the selling price and the collected quantity.
- **Income from the provision of recycling services:** Additional income obtained from services related to the management and recycling of materials.
- **Selling Price of Processed Material (COP/\$):** In some cases, materials can be transformed or processed, which increases their selling price.
- **Percentage of Processed Material:** The proportion of material that has been processed compared to the total collected materials.
- **Total Price (\$) of Processing Profit:** The total income explicitly generated from the sale of processed material.

Grand Total

A grand total is shown for the total price columns at the end of the table. It reflects the total amount from the collection and sale of materials.

Contextualization and Assessment

The table provides a comprehensive view of how recyclable materials are valued and sold and how the organization generates revenue. The focus on material characterization and processing enables the organization to maximize the value of collected materials. Information on selling prices and profit margins is crucial to understand the profitability of each type of material.

Altogether, this table is an essential tool for financial and strategic planning. It helps the organization optimize its operations and maximize the income from recycling materials. It should be completed as shown in the following example:

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L3 Porcentaje de material transformado

Tabla de precios											
Cid.	Tipo de material	Caracterización	Precio Unidad (\$)	Cantidad (kg/ton)	Precio Total (\$)	Precio Unidad (\$) Comercialización	Precio Total (\$) con % de beneficio	Ingreso por prestación de servicio de aprovechamiento	Valor de venta de material transformado (Peso/ton)	Porcentaje de material transformado	Precio Total (\$) con % de beneficio de transformación
P001	CHATARRA DE COBRE	0.038%	\$ 26,000	8,863,475.12	\$ 230,450	\$ 27,000	\$ 239,310	\$ -	\$ -	- 0.0%	\$ -
P002	CHATARRA DE BRONCE	0.046%	\$ 17,400	14,724,052	\$ 251,014	\$ 19,000	\$ 269,674	\$ -	\$ -	- 0.0%	\$ -
P003	CHATARRA P/AD DE COBRE	0.046%	\$ 16,000	4,437,237.60	\$ 70,898	\$ 18,000	\$ 79,717	\$ -	\$ -	- 0.0%	\$ -
P004	CHATARRA P/AD MIXTO	0.019%	\$ 12,500	3,545,370.05	\$ 44,317	\$ 14,000	\$ 49,635	\$ -	\$ -	- 0.0%	\$ -
P005	CHATARRA P/AD ALUMINIO	0.023%	\$ 4,000	7,362,926.26	\$ 29,545	\$ 4,500	\$ 32,239	\$ -	\$ -	- 0.0%	\$ -
P006	CHATARRA DE ACEÑO	0.077%	\$ 4,800	5,330,885.07	\$ 21,272	\$ 4,800	\$ 25,527	\$ -	\$ -	- 0.0%	\$ -
P007	CHATARRA DE ALUMINIO P/AD	0.368%	\$ 5,800	18,173,002	\$ 590,897	\$ 5,300	\$ 636,290	\$ -	\$ -	- 0.0%	\$ -
P008	CHATARRA DE ALUMINIO P/OTE	0.923%	\$ 4,800	295,448,204	\$ 1,801,793	\$ 4,300	\$ 1,278,437	\$ -	\$ -	- 0.0%	\$ -
P009	CHATARRA DE ALUMINIO P/FEPI	0.277%	\$ 5,500	88,634,475.12	\$ 487,430	\$ 6,000	\$ 530,807	\$ -	\$ -	- 0.0%	\$ -
P010	CHATARRA DE HIERRO/CO	0.058%	\$ 5,500	17,268,952	\$ 97,498	\$ 5,800	\$ 102,814	\$ -	\$ -	- 0.0%	\$ -
P011	CHATARRA DE HIERRO	3.233%	\$ 800	254,482,504	\$ 2,363,596	\$ 1,000	\$ 3,311,791	\$ -	\$ -	- 0.0%	\$ -
P012	CARTON	36.931%	\$ 500	1817,330.02	\$ 5,908,365	\$ 840	\$ 5,927,841	\$ -	\$ -	- 0.0%	\$ -
P013	APICHO	2.738%	\$ 850	886,344,751.2	\$ 753,393	\$ 700	\$ 636,441	\$ -	\$ -	- 0.0%	\$ -
P014	PASTA CANASTA	0.368%	\$ 1,200	18,173,002	\$ 91,075	\$ 1,000	\$ 83,397	\$ -	\$ -	- 0.0%	\$ -
P015	PASTA R/MAX	0.554%	\$ 1,300	177,268,952	\$ 230,450	\$ 1,700	\$ 301,257	\$ -	\$ -	- 0.0%	\$ -
P016	PASTA	1.847%	\$ 650	550,895,000	\$ 364,883	\$ 650	\$ 502,282	\$ -	\$ -	- 0.0%	\$ -
P017	PET TRANSPARENTE	4.682%	\$ 700	147,244,252	\$ 1,034,088	\$ 1,350	\$ 2,300,065	\$ -	\$ -	- 0.0%	\$ -
P018	PET VERDE	0.462%	\$ 200	147,244,252	\$ 29,545	\$ 900	\$ 102,852	\$ -	\$ -	- 0.0%	\$ -
P019	PET PELO	0.368%	\$ 200	18,173,002	\$ 23,638	\$ 900	\$ 96,361	\$ -	\$ -	- 0.0%	\$ -
P020	PET AZUL	0.277%	\$ 200	88,634,475.12	\$ 17,277	\$ 900	\$ 79,717	\$ -	\$ -	- 0.0%	\$ -
P021	PET ACABTE	0.923%	\$ 200	295,448,204	\$ 59,890	\$ 900	\$ 265,933	\$ -	\$ -	- 0.0%	\$ -
P022	PET AMBAR	1.180%	\$ 200	354,537,900.5	\$ 70,388	\$ 1,000	\$ 354,538	\$ -	\$ -	- 0.0%	\$ -

NUMERO DE TRICICLOS	
CAPACIDAD DE CARGA DE RECICLAJE POR TRICICLO (KG)	
NUMERO DE VIAJES POR TRICICLO	
KILOGRAMOS AL MES	0
% DE BENEFICIO	
PRECIO PROMEDIO	#DIV/0!
COSTOS FIJOS MENSUALES	#DIV/0!
COSTOS FIJOS UNITARIOS MENSUALES	#DIV/0!
COSTOS TOTALES	\$ -
TARIFA DE APROVECHAMIENTO (\$/ton)	
CANTIDAD DE MATERIALES QUE SE COMERCIALIZAN ACTUALMENTE POR LA ORGANIZACIÓN (ton)	
% DE PARTICIPACIÓN DEL PILOTO EN LOS GASTOS DE LA ORGANIZACIÓN	#DIV/0!

Once all the values have been entered, fill out the table on the right-hand side.

NUMERO DE TRICICLOS	
CAPACIDAD DE CARGA DE RECICLAJE POR TRICICLO (KG)	
NUMERO DE VIAJES POR TRICICLO	
KILOGRAMOS AL MES	0
% DE BENEFICIO	
PRECIO PROMEDIO	#DIV/0!
COSTOS FIJOS MENSUALES	#DIV/0!
COSTOS FIJOS UNITARIOS MENSUALES	#DIV/0!
COSTOS TOTALES	\$ -
TARIFA DE APROVECHAMIENTO (\$/ton)	
CANTIDAD DE MATERIALES QUE SE COMERCIALIZAN ACTUALMENTE POR LA ORGANIZACIÓN (ton)	
% DE PARTICIPACIÓN DEL PILOTO EN LOS GASTOS DE LA ORGANIZACIÓN	#DIV/0!

The number of tricycles, cars, carts, or bicycles allocated to the project must be known to complete the first row. You should also determine the capacity and number of trips each one needs to make. This data may be obtained from the operational plan (attached to this package).

Additionally, enter the amount of material collected and used during the month. If there is a recovery fee, enter the relevant amount in money per ton, as shown in the following image.

NUMERO DE TRICICLOS	4
CAPACIDAD DE CARGA DE RECICLAJE POR TRICICLO (KG)	156
NÚMERO DE VIAJES POR TRICICLO	2
KILOGRAMOS AL MES	32,000
% DE BENEFICIO	1.25
PRECIO PROMEDIO	\$ 633
COSTOS FIJOS MENSUALES	\$ 10,504,946
COSTOS FIJOS UNITARIOS MENSUALES	\$ 328
COSTOS TOTALES	\$ 20,271,295
TARIFA DE APROVECHAMIENTO (\$/ton)	\$ -
CANTIDAD DE MATERIALES QUE SE COMERCIALIZAN ACTUALMENTE POR LA ORGANIZACIÓN (ton)	110
% DE PARTICIPACIÓN DEL PILOTO EN LOS GASTOS DE LA ORGANIZACIÓN	23%

The image shows a table with key operational and financial data for the operation of collecting recyclable materials using tricycles. Each of the elements in the table is explained below:

1. **Number of Tricycles:** The organization uses four tricycles to collect recyclable materials.
2. **Recycling Load Capacity per Tricycle (Kg):** Each tricycle can load up to 156 kilograms of recyclable materials per trip.
3. **Number of Trips per Tricycle:** Each tricycle makes two collection trips.
4. **Kilograms per Month:** The total kilograms of materials collected monthly is 32,000 kg.
5. **Profit %:** The profit margin applied is 1.25%, which represents the profit obtained over the direct costs of collection and sale.
6. **Average Price:** The average price per kilogram of recyclable material is COP \$633.
7. **Monthly Fixed Costs:** The monthly fixed operational expenses, such as salaries, rents, and other administrative expenses. The total sum is COP \$10,504,946.
8. **Monthly Unit Fixed Costs:** The fixed cost per kilogram of material collected is calculated as the total fixed costs divided by the quantity of material collected. In this case, it is COP \$328 per kilogram.
9. **Total Costs:** This represents the total costs incurred in the operation, which is COP \$20,271,295.
10. **Recovery Fee (\$/ton):** This is not provided, but it could be additional income if applicable.
11. **Quantity of Materials Currently Sold by the Organization (ton):** The organization currently sells 110 tons of recyclable materials.
12. **Pilot Share % in the Organization's Expenses:** The pilot for collecting recyclable materials represents 23% of the organization's total expenses.

Interpretation: These data provide a detailed view of the organization’s operational capacity and the costs of the project of collecting and selling recyclable materials. Information on tricycle capacity, costs, and revenue is essential to evaluate process efficiency and profitability. The organization’s cost-sharing percentage also helps understand the project’s scale regarding other activities of the organization.

Human Talent

Once this step has been completed, go to the ‘Human Talent’ tab, and fill out the data on days worked per month, position, salary, transportation allowance, shifts, subsidies, advances, and savings, if any. Deductions are calculated automatically according to Colombian law. If you are in another country, modify the percentage to calculate the deductions for healthcare and pension.

Employer expenses are calculated automatically according to Colombian law. If you are outside of Colombia, please modify it according to the reference of the country you are in.

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TALENTO HUMANO																				
DÍAS TRABAJADOS	NOMBRE/CARGO	SALARIO	SUBSIDIO					DEDUCCIONES		TOTAL	GASTOS DEL EMPLEADOR									
			Transporte	Turnos	Subsidios	Anticipos	Ahorro	SALUD	PENSION	PAGADO	SALUD	PENSION	APIL	CCF	CERANTIAS	PRIMA	INT. CERANTIAS	YACACIONES		
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
									\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
TOTAL		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

TOTAL GASTOS DEL EMPLEADOR \$ 0

EMPLEADOS QUE DEVENGUEN MENOS DE 10 SALARIOS MÍNIMOS			
CONCEPTO	EXONERADOS		
	SI	NO	
x SEGURIDAD SOCIAL			
8.5% SALUD	X		
12% PENSION		X	
RIESGOS LABORALES			X
PARAFISCALES			
3% ICBF	X		
2% SEMA	X		
4% CAJA DE COMPENSAC.			X

SALARIO MÍNIMO 2023	\$ 1,160,000
EXONERADOS 10 SMLV	\$ 11,600,000

PLAN DE INVERSION EQUILIB. INGR. OPERAC. GASTOS OPERACIONALES GASTOS NO OPERAC. INGRESOS NO OPERACIONALES ESTADO RI ...

The data must be filled out as shown below:

TALENTO HUMANO											
NOMINA MENSUAL											
DIAS TRABAJADOS	NOMBRE/CARGO	SALARIO	SUBSIDIO					DEDUCCIONES		TOTAL	
			Transporte	Turnos	Subsidios	Anticipos	Ahorro	SALUD	PENSION	PAGADO	
30	Administrativo	\$ 1,300,000	\$ 162,000						\$ 52,000	\$ 52,000	\$ 1,462,000
30	Conductor	\$ 1,300,000	\$ 162,000						\$ 52,000	\$ 52,000	\$ 1,462,000
30	Cajero	\$ -	\$ -						\$ -	\$ -	\$ -
30	Jefe de Bodega	\$ 1,300,000	\$ 162,000						\$ 52,000	\$ 52,000	\$ 1,462,000
30	Auxiliar de Bodega	\$ -	\$ -						\$ -	\$ -	\$ -
30	Prensador y operario	\$ 1,300,000	\$ 162,000						\$ 52,000	\$ 52,000	\$ 1,462,000
TOTAL		\$ 5,200,000	\$ 648,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 208,000	\$ 208,000	\$ 5,848,000

TOTAL GASTO NOMINAL	\$ 8,057,176
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EMPLEADOS QUE DEVENGUEN MENOS DE 10 SALARIOS MÍNIMOS				SALARIO MÍNIMO 2024		EXONERADOS 10 SMLV	
CONCEPTO	EXONERADOS						
	SI	NO					
							\$ 1,300,000
							\$ 13,000,000

For the same example in Colombia, the employer expenses are as follows:

GASTOS DEL EMPLEADOR								TOTAL EMPLEADOR	
SALUD	PENSION	ARL	CCF	CESANTIAS	PRIMA	INT CESANTIAS	VACACIONES	% de participación en el piloto	SALARIO + OTROS GASTOS
\$ 0	\$ 156,000	\$ 31,902	\$ 52,000	\$ 121,784	\$ 121,784	\$ 14,614	\$ 54,210	23%	\$ 453,925
\$ 0	\$ 156,000	\$ 31,902	\$ 52,000	\$ 121,784	\$ 121,784	\$ 14,614	\$ 54,210	100%	\$ 2,014,294
\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	23%	\$ 0
\$ 0	\$ 156,000	\$ 31,902	\$ 52,000	\$ 121,784	\$ 121,784	\$ 14,614	\$ 54,210	23%	\$ 453,925
\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	23%	\$ 0
\$ 0	\$ 156,000	\$ 31,902	\$ 52,000	\$ 121,784	\$ 121,784	\$ 14,614	\$ 54,210	100%	\$ 2,014,294
\$ 0	\$ 624,000	\$ 127,608	\$ 208,000	\$ 487,136	\$ 487,136	\$ 58,456	\$ 216,840		\$ 4,936,439
TOTAL GASTOS DEL EMPLEADOR							\$ 2,209,176		

The image shows a detailed table of **human talent** and **payroll-related expenses** for an organization. The different sections and elements are broken down and explained below:

Human Talent and Monthly Payroll

- Days Worked:** The number of days each employee worked in the month. It is 30 days for all positions.
- Name/Position:** Employee positions, including Administrative Staff, Driver, Cashier, Warehouse Manager, Warehouse Assistant, Presser, and Operator.
- Salary:** Each employee's monthly salary is set at COP \$1,300,000 for each position.
- Transportation and Others:** Additional expenses such as transportation (COP \$162,000) and deductions for healthcare and pension (COP \$52,000 each).
- Total Payroll:** Sum of salaries and deductions, totaling COP \$5,848,000.

Employer Expenses

- Healthcare and Pension:** Employer contributions to healthcare (COP \$156,000) and pension (COP \$624,000).
- ARL (Occupational Hazard Insurer):** Employer payments for occupational hazard coverage totaling COP \$127,608.

3. **CCF (Family Compensation Fund):** Contributions to family compensation funds totaling COP \$208,000.
4. **Severance and Bonuses:** The provision for severance (COP \$487,136) and bonuses (COP \$487,136), as well as additional benefits granted to employees.
5. **Severance INT and Vacation:** Interest on severance (COP \$58,456) and provision for vacation payment (COP \$216,840).
6. **Total Employer:** Total employment costs for the organization, adding COP \$2,209,176 for the specified items and COP \$4,936,439 for salaries plus other expenses.

Total, Payroll Expenses

- **Total, Payroll Expenses:** Sum of all payroll-related expenses, which is COP \$8,057,176.

Minimum Wage and Exemptions

- **Minimum Wage 2024:** Set at COP \$1,300,000, possibly as a reference for calculations or comparisons.
- **Exempted 10 SMLV:** Whether employees are exempt from certain payments or contributions when they earn less than ten current statutory minimum wages (SMLV), with a reference of COP \$13,000.

Descriptions and Contributions

- **Descriptions:** Details of social security and parafiscal contributions, such as healthcare, pension, occupational hazard, ICBF (Colombian Institute of Family Welfare), SENA (National Training Service), and compensation fund.
- **Pilot Participation %:** The proportion of time or resources that employees devote to a specific pilot project, with some positions participating at 23% and others at 100%.

Interpretation: This table provides a detailed view of labor costs, which are a significant part of the organization's total operational expenses. It includes all the essential components to calculate employment costs, from salaries to benefits and statutory contributions. This information is crucial for financial planning, and to ensure the organization meets all legal and contractual obligations, and it manages its human resources efficiently.

[Investment Plan](#)

Once the information on human talent has been completed, go to the 'Investment Plan' tab.

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PLAN DE INVERSIÓN						
INVERSIÓN						
RUBRO	CANTIDAD	UNIDAD TECNICA DE MEDIDA	% DE PARTICIPACIÓN EN EL PILOTO	COSTO UNITARIO	COSTO TOTAL	
			#DIV/0!		#DIV/0!	
			#DIV/0!		#DIV/0!	
			#DIV/0!		#DIV/0!	
SUBTOTAL					#DIV/0!	
			100%		\$ 0	
			100%		\$ 0	
SUBTOTAL					\$ 0	
			100%		\$ 0	
			100%		\$ 0	
SUBTOTAL					\$ 0	
			0%		\$ 0	
			0%		\$ 0	
			0%		\$ 0	
			0%		\$ 0	
			0%		\$ 0	
			0%		\$ 0	
			100%		\$ 0	
SUBTOTAL					\$ 0	
TOTAL					#DIV/0!	
GASTOS OPERACIONALES						
RUBRO	CANTIDAD	UNIDAD TECNICA DE MEDIDA	% DE PARTICIPACIÓN EN EL PILOTO	GASTO OPERACIONAL UNITARIO	GASTO OPERACIONAL TOTAL AÑO 1	
			100%		\$ 0	
			100%		\$ 0	
SUBTOTAL					\$ 0	

TALENTO HUMANO PLAN DE INVERSIÓN EQUILIB. INGR. OPERAC. GASTOS OPERACIONALES GASTOS NO OPERAC. INGRESOS NO O

It is then necessary to differentiate the items into the following categories: computer equipment and related equipment, furniture and fixtures, machinery, and deferred investments. This step will allow determining the correct investment plan.

Investment

Detail the following aspects for each investment item:

- Investment name
- Number of times it will be needed
- Technical unit of measurement
- Units (annual, monthly, units)
- Share percentage: Whether the equipment of the investment will be used one hundred percent in route operations, in the operation of the business, or part-time.
- Unit cost of investment

Operational expenses

Additionally, disaggregate operational expenses as follows. It is key to have an accurate estimate of these costs, which must then be entered in the operational expenses table.

Detail the following aspects for each of the operational expenses:

- Expense name
- Number of times it will be needed
- Technical unit of measurement
- Units (annual, monthly, units)
- Share percentage: Whether the equipment of the investment will be used one hundred percent in route operations, in the operation of the business, or part-time.
- Unit cost of investment

Operational Costs

Afterwards, the operational costs should be listed. These are costs generated directly by the organization's operations and must be detailed in the operational costs, which have the same distribution as the previous items.

The total cost will be calculated automatically. Next, fill out each investment according to the following example:

PLAN DE INVERSION

INVERSIÓN

RUBRO	CANTIDAD	UNIDAD TECNICA DE MEDIDA	% de participación en el piloto	COSTO UNITARIO	COSTO TOTAL	
Equipos de Computo y similares	Computadores con licencias office	1	Unidades	23%	\$ 900,000	\$ 202,817
	Balanza	1	Unidades	23%	\$ 300,000	\$ 67,606
	Impresora	1	Unidades	23%	\$ 650,000	\$ 146,479
SUBTOTAL					\$ 416,901	
Muebles y enseres	Mesas de trabajo	1	Unidades	100%	\$ 200,000	\$ 200,000
	Sillas de trabajo	1	Unidades	100%	\$ 70,000	\$ 70,000
SUBTOTAL					\$ 270,000	
Equipos	Entrenamiento con GPS	4	Anual	100%	\$ 9,000,000	\$ 36,000,000
	Almuerzo	1	Anual	23%	\$ 150,000	\$ 33,803
	Palaya	1	Anual	23%	\$ 350,000	\$ 78,873
	Dispensador de agua	1	Anual	23%	\$ 100,000	\$ 22,535
	Compactadora	0	Anual	23%	\$ 750,000	\$ 0
	Vehículo LUV 1600	1	Anual	100%	\$ 12,000,000	\$ 12,000,000
SUBTOTAL					\$ 48,135,211	
Inversiones Diferidas	Constitución de Sociedad	1	Unidades	0%	\$ 42,000	\$ 0
	Impuesto de registro (con exaínta)	1	Unidades	0%	\$ 100,000	\$ 0
	Inscripción de los libros	1	Unidades	0%	\$ 16,000	\$ 0
	Inscripción de actas y documentos	1	Unidades	0%	\$ 48,000	\$ 0
	Matrícula Persona Jurídica	1	Unidades	0%	\$ 131,000	\$ 0
Formulario de Registro Mercantil	1	Unidades	0%	\$ 141,500	\$ 0	
SUBTOTAL					\$ 0	
Capacitaciones pta a pta	Capacitaciones puerta a puerta a todo costo	1	Anual	100%	\$ 35,000,000	\$ 35,000,000
SUBTOTAL					\$ 35,000,000	
TOTAL					\$ 83,552,113	

GASTOS OPERACIONALES

RUBRO	CANTIDAD	UNIDAD TECNICA DE MEDIDA		GASTO OPERACIONAL UNITARIO	GASTO OPERACIONAL TOTAL AÑO 1	
Útiles y papelería	Papelería Gral	12	Unidades	100%	\$ 50,000	\$ 600,000
Publicidad	Pauta web	0	Anual	100%	\$ 150,000	\$ 0
SUBTOTAL					\$ 600,000	
Arrendamientos	Bodega ECA	0	Anual	23%	\$ 0	\$ 0
Arrendamientos	Bodega Local	12	Anual	100%	\$ 1,449,000	\$ 17,388,000
Servicios	Plan de Telefonía e internet	12	Anual	100%	\$ 160,000	\$ 1,920,000
Servicios	Servicios Públicos ECA	0	Anual	23%	\$ 0	\$ 0
Servicios	Servicios Públicos	12	Anual	100%	\$ 850,000	\$ 10,200,000
Servicios	Internet	12	Anual	23%	\$ 0	\$ 0
Mantenimiento de equipos	Mantenimiento Preventivo equipos de computo	1	Anual	23%	\$ 50,000	\$ 11,268
Mantenimiento de equipos	Mantenimiento Preventivo triciclo	4	Anual	100%	\$ 50,000	\$ 200,000
Equipos	renting compactadora	1	Anual	23%	\$ 9,000,000	\$ 2,028,169
Mantenimiento de equipos	Mantenimiento compactadora	12	Anual	23%	\$ 100,000	\$ 270,423
Balanza	renting Balanza	1	Anual	23%	\$ 300,000	\$ 67,606
Mantenimiento de equipos	Mantenimiento Preventivo vehículo liv	12	Anual	100%	\$ 200,000	\$ 2,400,000
Insomnos	Aceite hidráulico	12	Anual	23%	\$ 150,000	\$ 405,634
Insomnos	Alambre de anarce	12	Anual	23%	\$ 416,000	\$ 1,124,958
Seguros	Sost y tecnico mecanica vehiculo liv	12	Anual	100%	\$ 65,000	\$ 780,000
Combustible	Combustible vehículo liv	12	Anual	100%	\$ 700,000	\$ 8,400,000
Mantenimiento vehiculo	Mantenimiento vehiculo liv	12	Anual	100%	\$ 780,000	\$ 9,360,000
Dotación	Dotación recicladores	24	Anual	100%	\$ 300,000	\$ 7,200,000
SUBTOTAL					\$ 61,756,056	
Valento Humano		12	Anual		\$ 4,936,439	\$ 59,237,266
SUBTOTAL					\$ 59,237,266	
Herramientas			Anual		\$ 0	
			Anual		\$ 0	
SUBTOTAL					\$ 0	
Otros	Renovación de Matrícula	1	Anual	23%	\$ 668,000	\$ 150,535
	Asesoría legal y contable	12	Anual	23%	\$ 1,300,000	\$ 3,515,493
	Hosting	1	Anual	23%	\$ 400,000	\$ 90,141
	Dominio	1	Anual	23%	\$ 150,000	\$ 33,803
	Software contable y control de inventario	1	Anual	23%	\$ 3,000,000	\$ 676,056
SUBTOTAL					\$ 4,466,028	
TOTAL					\$ 126,059,350	

COSTOS OPERACIONALES

RUBRO	CANTIDAD * UNIDAD	CANTIDAD TOTAL (kg/mes)	UNIDAD TECNICA DE MEDIDA		COSTO OPERACIONAL UNITARIO	COSTO OPERACIONAL TOTAL AÑO 1
Compra de reciclaje	12	32000	UND - Anual		\$ 20,271,295	\$ 243,255,544
Compensación prestación del servicio	12	32000	UND - Anual	50%	\$ 135	\$ 25,920,000
SUBTOTAL					\$ 20,271,430	\$ 269,175,544
TOTAL					\$ 269,175,544	
TOTAL INVERSIÓN					\$ 83,552,113	
TOTAL GASTOS OPERACIONALES					\$ 126,059,350	
TOTAL COSTO OPERACIONALES					\$ 269,175,544	
TOTAL PLAN DE INVERSIÓN					\$ 478,787,007	

Investment

➤ Computer Equipment and related equipment

- **Computers with Office Licenses:** Investment in computer equipment with office software necessary for administrative operations, amounting to COP \$202,817
- **Scale:** Equipment needed to weigh recyclable materials. It costs COP \$67,606
- **Printer:** Equipment needed to print administrative documents. It costs COP \$146,479

Subtotal for this category: **COP \$416,901**

➤ Furniture and Fixtures

- **Work Tables:** Surfaces for administrative tasks or processing tasks of materials. It costs COP \$200,000
- **Work Chairs:** Furniture for staff use. They cost COP \$70,000

Subtotal for this category: **COP \$270,000**

➤ Equipment

- **Tricycle with GPS:** Vehicle for collecting materials with a navigation system. Total COP \$36,000,000
- **Lifter:** Equipment to lift and move heavy materials. It costs COP \$78,833
- **Water Dispenser:** Equipment to provide drinking water. It costs COP \$22,535
- **Compactor:** Machine to compress recyclable materials. It costs COP \$0 (this shows it was not purchased or has no cost)
- **Vehicle LUV 1600:** Utility vehicle to transport materials. Valued at COP \$12,000,000

Subtotal for this category: **COP \$48,135,211**

➤ Deferred Investments

- **Incorporation of the Company:** Legal and administrative expenses to establish the legal entity. Costs are COP \$0 (not specified).
- **Registration Advice (before Chambers of Commerce), Book Registration, Area Implementation and Investor Service, Personal Legal Materials, Trade Registry Formalization:** Various administrative and legal expenses, with unspecified costs too.

Subtotal for this category: **COP \$0 (no costs specified)**

➤ Staff Training

- **PTA and PTA Training:** Specialized training for water treatment personnel (PTA). Total cost COP \$35,000,000

Operational Expenses

➤ Supplies and Stationery

- **General Stationery:** Office supplies necessary for daily operations. COP \$600,000
- **Advertising:** Promotion and advertising expenses. COP \$150,000

Subtotal for this category: COP **\$600,000**

➤ Leases and Services

- **BCA Warehouse and Premises Rental:** Rental costs of spaces for storage and operations. This costs COP \$19,308,000
- **Utilities:** Utilities and other services necessary for operations. COP \$1,920,000

Subtotal for this category: COP **\$59,237,266**

➤ Equipment Maintenance

- **Preventive Maintenance of Computer and Other Equipment:** Expenses for the maintenance and repair of operational equipment. COP \$2,550,000
- **Rental of Equipment and Vehicles:** Costs of leasing machinery and vehicles. COP \$3,705,400

Subtotal for this category: COP **\$10,660,533**

➤ Other Expenses

- **Donations:** Contributions to social organizations or projects. COP \$7,200,000
- **Human Talent:** Personnel-related costs, such as salaries and benefits. COP \$59,237,266
- **Tools:** Purchase of tools needed in operations. COP \$0 (not specified)

Subtotal for this category: COP **\$61,756,056**

Operational Costs

- **Recyclable Waste Purchase:** Costs of buying recyclable materials. This costs COP \$20,271,295
- **Compensations:** Other costs associated with the processing or handling of materials. COP \$5,243,544

Subtotal for this category: COP **\$269,175,544**

Total Investment Plan

The grand total of the investment plan, after adding all investments and operational costs, is COP **\$478,787,007**.

The Investment Plan details the financial resources needed to start or maintain the organization's operations, including investments in equipment, furniture, infrastructure, training, and other operational costs. Expenses are grouped into several categories: computer equipment, furniture, vehicles, and tools, and recurring expenses, such as leases, utilities, and maintenance.

The total projected investments and operational costs amount to COP \$478,787,007, which represents a significant investment in infrastructure and operational capacity. This level of investment points to a substantial commitment to expanding or improving operations, to increase the organization's efficiency and ability to handle greater volumes of recyclable materials.

Non-Operational Expenses

The Non-Operational Expenses tab shows detailed information on depreciation and interest. The information here populates automatically. If there are not any financial obligations, there will not be an interest calculation. There still will be depreciation, which is automatic and should be as shown below (If there is not depreciation, return to the 'Investment Plan' tab):

GASTOS NO OPERACIONALES						
DESCRIPCIÓN	RUBRO	CANTIDAD	PERIODICIDAD	GASTO UNITARIO	GASTO MENSUAL TOTAL	GASTO TOTAL AÑO 1
Depreciación	Depreciación acumulada		Anual			\$ 9,764,423
Préstamos Bancarios	Intereses		Anual			\$ 0
SUBTOTAL				\$ 0	\$ 0	\$ 9,764,423
TOTAL GENERAL						

Non-Operational Income

The calculation in this tab is automatic for some instances, as detailed below:

For the EPR (Extended Producer Responsibility), an estimate of the percentage of materials in post-consumer products is necessary. For example, if this percentage is 85%, replace it in the column 'Quantity'. Similarly, adjust the unit price for each ton of collected post-consumer materials.

In case of processing of materials, follow the same steps; otherwise, leave it blank or empty.

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INGRESOS NO OPERACIONALES						
DESCRIPCIÓN	RUBRO	CANTIDAD	PERIODICIDAD	INGRESO UNITARIO	INGRESO MENSUAL TOTAL	INGRESO TOTAL AÑO 1
REP	Pago por gestor REP (85% del material recolectado)	27200	mes	\$ 40	\$ 1,088,000	\$ 13,056,000
REP	Transformación de material		mes		\$ 0	\$ 0
SUBTOTAL				\$ 40	\$ 1,088,000	\$ 13,056,000
TOTAL GENERAL						\$ 13,056,000

Analysis of Results

The chapter on Analysis and Evaluation of Results is essential to provide a comprehensive understanding of the performance of the circular economy pilot. This detailed analysis allows us to assess the effectiveness of the implemented strategies, identify improvement opportunities, and make informed decisions. Additionally, the economic and environmental impact of the project may be determined by understanding the results, thus ensuring that sustainability objectives are being met. This analytical approach strengthens transparency and stakeholder communication, and facilitates constructive dialogue aligned with organizational goals.

Income Statement

Once the previous steps have been completed, the income statement is generated automatically. This statement provides a detailed representation of the performance of the circular economy pilot, including an analysis of the income generated and the associated costs. It also shows the economic impact of the pilot, which facilitates decision-making based on accurate and updated data. This comprehensive approach ensures that all relevant variables are considered, providing a clear and complete picture of the project. The income statement must show a positive profit, indicating that the circular economy pilot generates more income than costs. A positive profit reflects the project's economic viability and demonstrates that the practices to be implemented are environmentally sustainable and financially profitable.

ESTADO DE RESULTADOS		
#	DESCRIPCIÓN	AÑO 1
1	VENTAS (+)	\$ 383,042,393
2	COSTO DE VENTAS (-)	\$ 243,255,544
3	UTILIDAD BRUTA (=)	\$ 139,786,849
4	GASTOS OPERACIONALES (-) (ADMIN)	\$ 126,059,350
5	GASTOS OPERACIONALES (-) (VENTAS)	\$ 0
6	UTILIDAD OPERACIONAL (=)	\$ 13,727,499
7	INGRESOS NO OPERACIONALES (+)	\$ 13,056,000
8	GASTOS NO OPERACIONALES (-)	\$ 9,764,423
9	UTILIDAD ANTES DE IMPUESTOS (=)	\$ 17,019,076
10	PROVISIÓN DE IMPUESTOS (-)	\$ 5,956,677
	UTILIDAD NETA (=)	\$ 11,062,399

The document shows an **Income Statement**, which is a financial report that summarizes a company's income, costs, and expenses for a specific period of time. In this case, it is the first year. Key terms are explained below:

1. **Sales (+):** The total revenue from the sale of products or services, which in this case is COP \$383,042,393
2. **Cost of Sales (-):** The direct costs of producing the goods sold. COP \$243,255,544
3. **Gross Profit (=):** The difference between sales and sales costs is COP \$139,786,849. It represents profit before operational expenses are deducted.
4. **Operational Expenses (-):** Two categories are included:
 - o **Administration (ADMIN):** General expenses related to the company's management, which in this case is COP \$126,059,350
 - o **Sales:** Expenses related to the marketing and sale of products. In this case, no expenses were reported.

5. **Operational Profit (=):** Profit after subtracting operational expenses from gross profit, resulting in COP \$13,727,499
6. **Non-Operational Income (+):** Income from activities not directly related to the core business. COP \$13,056,000
7. **Non-Operational Expenses (-):** Expenses not directly related to main operations, which sum COP \$9,764,423
8. **Profit Before Taxes (=):** The profit before deducting taxes. COP \$17,019,076
9. **Tax Provision (-):** The amount reserved for paying taxes. In this case, COP \$5,956,677
10. **Net Profit (=):** The final profit after subtracting all costs, expenses, and provisions. COP \$11,062,399

The income statement results are positive, with a **net profit of COP \$11,062,399**. This suggests that the company has generated more income than expenses, which is a good indication of the business' financial health. A positive net profit means that the company is operating profitably.

AÑO 2	AÑO 3	AÑO 4	AÑO 5	AÑO 6	AÑO 7	AÑO 8	AÑO 9	AÑO 10
\$ 404,645,984	\$ 427,791,734	\$ 452,603,655	\$ 479,216,750	\$ 507,778,068	\$ 538,447,864	\$ 571,400,873	\$ 606,827,727	\$ 644,936,508
\$ 256,975,157	\$ 271,674,136	\$ 287,431,236	\$ 304,332,192	\$ 322,470,391	\$ 341,947,603	\$ 362,874,796	\$ 385,373,033	\$ 409,574,460
\$ 147,670,827	\$ 156,117,598	\$ 165,172,419	\$ 174,884,557	\$ 185,307,677	\$ 196,500,261	\$ 208,526,077	\$ 221,454,693	\$ 235,362,048
\$ 133,169,098	\$ 140,786,370	\$ 148,951,980	\$ 157,710,356	\$ 167,109,893	\$ 177,203,331	\$ 188,048,175	\$ 199,707,161	\$ 212,248,771
\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
\$ 14,501,729	\$ 15,331,228	\$ 16,220,440	\$ 17,174,201	\$ 18,197,784	\$ 19,296,930	\$ 20,477,902	\$ 21,747,532	\$ 23,113,277
\$ 13,792,358	\$ 14,581,281	\$ 15,426,996	\$ 16,334,103	\$ 17,307,615	\$ 18,352,995	\$ 19,476,199	\$ 20,683,723	\$ 21,982,661
\$ 9,764,423	\$ 9,764,423	\$ 9,764,423	\$ 9,764,423	\$ 9,764,423	\$ 9,764,423	\$ 9,764,423	\$ 9,764,423	\$ 9,764,423
\$ 18,529,665	\$ 20,148,087	\$ 21,883,013	\$ 23,743,882	\$ 25,740,977	\$ 27,885,503	\$ 30,189,678	\$ 32,666,833	\$ 35,331,516
\$ 6,485,383	\$ 7,051,831	\$ 7,659,054	\$ 8,310,359	\$ 9,009,342	\$ 9,759,926	\$ 10,566,387	\$ 11,433,391	\$ 12,366,030
\$ 12,044,282	\$ 13,096,257	\$ 14,223,958	\$ 15,433,523	\$ 16,731,635	\$ 18,125,577	\$ 19,623,291	\$ 21,233,441	\$ 22,965,485

The image shows a projection of income statements for years 2 to 10, detailing the company's expected financial performance. Each section is explained below:

1. **Sales:** Steady growth in sales is observed over the years, starting with COP \$404,645,984 in year 2 and reaching COP \$644,936,508 in year 10. This indicates a positive trend in revenue generation.
2. **Cost of Sales:** Like sales, costs of sales also increase, which is normal as the volume of operations expands. These costs are projected to grow from COP \$256,975,157 in year 2 to COP \$409,574,460 in year 10.
3. **Gross Profit:** Being the difference between sales and cost of sales, it increased from COP \$147,670,827 in year 2 to COP \$235,362,048 in year 10. This reflects efficient cost management in comparison to the revenue generated.
4. **Operational Expenses (ADMIN):** Projected administrative expenses increase over the years, from COP \$133,169,098 in year 2 to COP \$212,248,771 in year 10, which is common as the company grows.
5. **Operational Income:** Despite increasing operational expenses, operational income shows sustained growth, starting with COP \$14,501,729 in year 2 and reaching COP \$23,113,277 in year 10.
6. **Non-Operational Income and Expenses:** These remain constant at COP \$13,792,358 and COP \$9,764,423, respectively, throughout the projected years.
7. **Profit Before Taxes:** Profit before taxes increases consistently, from COP \$18,529,665 in year 2 to COP \$35,331,516 in year 10, reflecting healthy profitability growth.
8. **Tax Provision:** It increases from COP \$6,485,383 in year 2 to COP \$12,366,030 in year 10, proportional to the increase in profit before taxes.
9. **Net Profit:** Finally, net profit, the final profit after all costs and taxes, grows from COP \$12,044,282 in year 2 to COP \$22,965,485 in year 10. This growth in net income indicates effective financial

management and a solid growth trajectory for the company.

This projection helps plan and make long-term strategic decisions, and it ensures a proactive approach to financial management and business growth.

Depreciation

DEPRECIACIÓN				
	CANTIDAD	UNIDAD TECNICA DE MEDIDA	COSTO UNITARIO	COSTO TOTAL
Computadores con licencias office	1	Unidades	\$ 900,000	\$ 202,817
Báscula	1	Unidades	\$ 300,000	\$ 67,606
Impresora	1	Unidades	\$ 650,000	\$ 146,479
Mesas de trabajo	1	Unidades	\$ 200,000	\$ 200,000
Sillas de trabajo	1	Unidades	\$ 70,000	\$ 70,000
Abanico	1	Unidades	\$ 150,000	\$ 33,803
Paleya	1	Unidades	\$ 350,000	\$ 78,873
Dispensador de agua	1	Unidades	\$ 100,000	\$ 22,535
Compactadora	1	Unidades	\$ 750,000	\$ 0
Triciclo con GPS	4	Unidades	\$ 9,000,000	\$ 36,000,000
Vehiculo LUV 1600	1	Unidades	\$ 12,000,000	\$ 12,000,000
SUBTOTAL			\$ 24,470,000	\$ 48,822,113
TOTAL GENERAL			\$ 24,470,000	\$ 48,822,113

Depreciation is the accounting process of allocating the cost of a tangible asset over its useful life. The image presents a depreciation table for various company assets. Here is the breakdown of the information provided:

1. **Asset Description:** Different assets such as computers, scales, printers, worktables, chairs, fans, etc.
2. **Quantity:** The quantity of each type of asset. Most are single (1 unit), except tricycles with GPS (4 units).
3. **Technical Unit of Measurement:** All assets are measured in units.
4. **Unit Cost:** The acquisition price of each unit of asset.
5. **Total Cost:** The total cost per type of asset, calculated as the amount multiplied by the unit cost.
6. **Subtotal and Grand Total:**
 - The **Subtotal** shows the accumulated cost of all assets before adding the specific costs of some items.
 - The **Grand Total** is the sum of all costs, which amounts to COP \$48,822,113.

Depreciation will be calculated on these costs to spread the expense of the asset over its useful life. It reflects the reduction in the amount of the assets over time due to wear and tear. This is important to reflect the company's actual financial position, and it helps plan for future replacement or upgrade of assets.

Cash Flow

FLUJO DE CAJA			
#	DESCRIPCIÓN	0	1
1	INGRESOS OPERACIONALES (+)		\$ 383,042,393
2	INGRESOS NO OPERACIONALES (+)		\$ 13,056,000
3	VALORES DE SALVAMENTO (+)		\$ 39,057,690
4	INGRESOS SUJETOS A TRIBUTACIÓN (=)		\$ 435,156,083
5	COSTOS OPERACIONALES (-)		\$ 243,255,544
6	GASTOS OPERACIONALES (-)		\$ 126,059,350
7	GASTOS NO OPERACIONALES (-)		\$ 9,764,423
8	EGRESOS QUE AFECTAN LA TRIBUTACIÓN (=)		\$ 379,079,317
9	UTILIDAD ANTES DE IMPUESTOS UAI (=)		\$ 56,076,766
10	IMPUESTOS (35%) (-)		\$ 19,626,868
11	UTILIDAD NETA (=)		\$ 36,449,898
12	DEPRECIACIONES		\$ 9,764,423
13	VENTA DE ACTIVOS POR VALOR DE LIBROS		\$ 0
14	PRÉSTAMOS BANCARIOS	\$ 0	
15	INGRESOS QUE NO AFECTAN LA TRIBUTACIÓN (=)		\$ 9,764,423
16	INVERSIONES	\$ 215,297,078	\$ 0
17	AMORTIZACIÓN A CAPITAL		\$ 0
18	EGRESOS QUE NO AFECTAN LA TRIBUTACIÓN (=)		\$ 0
19	INVERSIONES DIFERIDAS	\$ 0	
20	MAQUINARIA Y EQUIPO	\$ 0	
21	MUEBLES Y ENSERES	\$ 48,135,211	
22	EQUIPOS DE CÓMPUTO	\$ 416,901	
23	HERRAMIENTAS	\$ 0	
24	CAPITAL DE TRABAJO	\$ 166,744,965	
25	INVERSIÓN INICIAL	\$ 215,297,078	
26	FLUJO DE CAJA DEL INVERSIONISTA	-\$ 215,297,078	\$ 46,214,321
27	COSTO PROMEDIO PONDERADO DE CAPITAL CPPC - WACC	15.00%	
28	VALOR PRESENTE NETO (VPN)	-\$ 215,297,078	\$ 40,186,366

VALOR PRESENTE NETO (VPN)	-\$ 38,488,617
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29 TASA INTERNA DE RETORNO (TIR)	10%
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TASA COSTO DE OPORTUNIDAD	15%
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VALOR NETO ACTUAL	\$ 176,808,460
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VALOR PRESENTE NETO	-\$ 38,488,617
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The cash flow presented in the image details financial movements for two periods, focusing on income, expenses, and key financial assessments.

1. **Operational Income (+):** In year 1, operational income was COP \$383,042,393, reflecting the company's sales.
2. **Non-Operational Income (+):** Total COP \$13,056,000 coming from non-core business activities.
3. **Salvage Values (+):** COP \$39,057,690 expected from the sale of assets at the end of their useful life.
4. **Taxable Income (=):** Total income amounts to COP \$435,156,083, before deducting costs and expenses.
5. **Operational Costs (-):** They include production and operation costs, totaling COP \$243,255,544.
6. **Operational Expenses (-):** COP \$126,059,350 in administrative expenses and COP \$9,764,423 in other operational expenses.
7. **Profit Before Taxes UAI (=):** Profit before taxes is COP \$56,076,766 after subtracting all taxable costs and expenses.
8. **Taxes (35%):** COP \$19,626,868 in income taxes are calculated.
9. **Net Profit (=):** The net profit, or final profit, is COP \$36,449,898.
10. **Depreciation:** Recorded depreciation is COP \$9,764,423, which is subtracted as a non-cash cost.
11. **Investments:** A significant initial investment of COP \$215,297,078 is reported.
12. **Investor Cash Flow:** The cash flow for the investor is COP \$46,214,321 in year 1.
13. **Net Present Value (NPV):** An NPV of COP -\$38,488,617 indicates that the project is not generating enough future income to cover the initial investment, discounted at the 15% cost of capital.
14. **Internal Rate of Return (IRR):** The IRR is 10%, below the opportunity cost of 15%, suggesting that the return on the project is insufficient to justify the investment.

The cash flow shows that although the company generates a positive net profit, the overall project is not financially viable. The negative NPV and the IRR below the cost of capital imply that future income is insufficient to cover the initial investment costs and the profitability expectations. Therefore, cash flow is unfavorable, suggesting the need to review the investment strategy or the income expectations.

Weighted Average Cost of Capital (WACC)

CPPC - WACC
$CPPC = W_e * K_e + W_d * K_d (1 - t)$
$W_e = \text{Patrimonio} / \text{Patrimonio} + \text{Pasivo Financiero}$
$K_e = \% \text{ de Tasa de Beneficio Patrimonio}$
$W_d = \text{Pasivo Financiero} / \text{Patrimonio} + \text{Pasivo Financiero}$
$K_d = \% \text{ de Tasa de Beneficio Pasivo}$

RUBRO INVERSIÓN	VALOR INVERSIÓN	TASA DE BENEFICIO	% EN INVERSIÓN	TASA DE IMPUESTOS
Inversiones	\$ 215,297,078	15%	100%	35%
Préstamos Bancarios	\$ 0	16%	0%	
TOTAL	\$ 215,297,078		100%	

We	100%
Ke	15%
Wd	0%
Kd	16%

CPPC	
$= W_e * K_e + W_d * K_d (1 - t)$	15.00%

Referente para analizar la tasa de rentabilidad en la inversión.	El proyecto debe exigir una tasa de rentabilidad mínima para ser productiva.
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This is a measure to evaluate the cost of financing a company by combining the cost of equity capital (shares) and the cost of debt. It is a key indicator to understand the minimum return a company must obtain on its investments to cover its financing costs.

WACC Components

- We (Weight of Equity):** The proportion of the company's financing that comes from its own capital. In this case, it is 100%, which means that the investment is fully financed with the company's own capital.
- Ke (Cost of Equity):** The return shareholders require. In this document, it is set at 15%.
- Wd (Weight of Debt):** The proportion of financing that comes from debt. Here, it is 0%, indicating that no bank debt was used to finance the investments.
- Kd (Cost of Debt):** The interest that the company must pay on its debt. Although a debt cost of 16% is shown in this case, it does not affect the WACC calculation because there is no debt ($W_d = 0\%$).
- T (Tax Rate):** It is used to calculate the effective cost of debt after taxes. 35% in this case.

WACC calculation

WACC is calculated using the following formula:

$$WACC = We * Ke + Wd * Kd * (1 - T)$$

In this case:

- $We = 100\%$
- $Ke = 15\%$
- $Wd = 0\%$
- $Kd = 16\%$
- $T = 35\%$

So, $WACC = 15\%$ since the entire investment is financed with the company's equity and there is no debt.

Interpretation

WACC of 15% means that the company needs to generate a return of at least this percentage on its investments to cover the cost of its capital. If the return on investments is less than WACC, as in the case of the project with an IRR of 10%, the project does not meet the minimum profitability expectations and may not be financially viable.

Breakeven Point

GASTOS OPERACIONALES		COSTOS OPERACIONALES		EQUILIBRIO		EQUILIBRIO		
RUBRO	VALOR	RUBRO	VALOR	RUBRO	VALOR	Item	Kilogramos Proyectados	Punto de equilibrio (kg)
Total Gastos Fijos y Variables Anuales	\$ 126,059,350	Total Costos de Ventas Anuales	\$ 269,175,544	Total Gastos Fijos y Variables Anuales	\$ 126,059,350	Recolección diaria por trictorio	311	174
Total	\$ 126,059,350	Total	\$ 269,175,544	Total Costos de Ventas Anuales	\$ 269,175,544	Recolección diaria	1,244	698
				Kg Anuales	384000	Semanal	7,467	4,186
				Gastos Promedios Fijos y Variables Unitarios Anuales	\$ 328	Mensual	32,000	17,939
				Costos Promedios de Ventas Unitarios Anuales	\$ 701	Annual	384,000	215,268
$Q_e = \frac{\text{Costo Fijo}}{\text{Precio Unitario} - \text{CV Unitario}}$		$I_e = \frac{\text{Costo Fijo}}{\text{\% Contribución Marginal}}$		% de Beneficio	25%			
CANTIDAD DE EQUILIBRIO ANUAL		INGRESO DE EQUILIBRIO ANUAL		Precio Unitario Promedio	\$ 1,287			
$Q_e = \frac{\$ 126,059,350}{\$ 586}$		$I_e = \frac{\$ 126,059,350}{0.5}$						
$Q_e = 215268$		$I_e = \\$ 276,957,135$						
INCREMENTO IPC								
2	3	4	5	6	7	8	9	10
5.64%	5.72%	5.80%	5.88%	5.96%	6.04%	6.12%	6.20%	6.28%

The image shows a breakeven point analysis, which is a financial tool used to determine the level of sales necessary to cover all fixed and variable costs without incurring a loss or making a profit. Here are the key components and calculations presented:

Operational Expenses

- **Total Annual Fixed and Variable Expenses:** Two categories of expenses are listed:
 - **Fixed Expenses:** Costs that do not vary with the level of production or sales, such as rent, administrative salaries, etc. The total is COP \$126,059,350.
 - **Variable Expenses:** Costs that change in direct proportion to production volume, such as direct materials and labor. Here, they are specified as Annual Costs of Sales, totaling COP \$269,175,544.

Breakeven

- **Annual Breakeven Quantity (Qe):** The number of units that must be sold to cover all costs. It is calculated by dividing the fixed costs by the difference between the unit sales price and the unit variable cost:
 - Formula: $Qe = \frac{\text{Fixed Cost}}{\text{Unit Price} - \text{Unit Variable Cost}}$
 - With a fixed cost of COP \$126,059,350 and a contribution margin (Unit Price - Unit Variable Cost) of COP \$586, the result is a Qe of 215,268 units.
- **Annual Breakeven Income (Ie):** The total income necessary to reach the breakeven point, calculated as:
 - $Ie = \frac{\text{Fixed Cost}}{\text{Contribution Margin Percentage}}$
 - Given a fixed cost of COP \$126,059,350 and a contribution margin percentage of 50%, the annual breakeven income is COP \$276,957,135.
- **CPI Increase:** The increase in the Consumer Price Index (CPI) projected for several years, reflecting expected inflation. This affects future costs and prices.

Collection and Breakeven

- **Item:** The collection and production activities necessary to achieve the breakeven point.
- **Projected Kilograms:** Expected or projected collection amount.
- **Breakeven Point (kg):** The minimum collection volume necessary to reach the breakeven point in kilograms, which is 215,268 kg per year.

Final Interpretation

The analysis shows that the company needs to sell at least 215,268 units per year, and generate revenue of COP \$276,957,135 to cover all operational costs and reach the break even point. Additionally, monitoring the increase of CPI is crucial to adjust prices and costs in response to inflation, and ensure that the breakeven point is kept in real terms.

This analysis is essential for financial planning, as it allows the company to understand the sales volume needed to avoid losses, and it provides a basis for establishing sales goals and pricing strategies.

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This organization is engaged in collecting kilos of materials and selling them (recycling).

In the context of a recycling organization that collects and sells kilos of recyclable materials, the breakeven analysis shows how many kilos must be collected and sold to cover all operational costs without incurring a loss or making a profit.

Key Analysis Details

1. **Operational Expenses:**
 - **Fixed:** COP \$126,059,350
 - **Variable (Cost of Sales):** COP \$269,175,544
2. **Breakeven Point in Kilos (Qe):**
 - The organization must collect and sell **215,268 kilos** of recyclable materials annually to cover all costs.
3. **Annual Breakeven Income (Ie):**

- The income needed to break even is **COP \$276,957,135**.

Breakeven Point Assessment

The analysis shows that the organization must collect and sell 215,268 kilos of recyclable materials annually to achieve financial breakeven point. Thus, it will generate sufficient revenue to cover fixed and variable costs. If the organization plans to collect 384,000 kilos annually, which is significantly more than the breakeven point of 215,268 kilos, it will not only break even but generate additional profits as long as projected costs and prices are maintained. This result is positive and suggests a financially viable and sustainable operation over time.