



Our World, Our Responsibility

Project Concept

AGRO-PROCESSING & PACKAGING CENTER (APPC)

**Palala/Kowai Town, Kpaai District,
Bong County, Liberia**

Abbreviations



Abbreviation	Definition
\$	United States Dollar (USD)
APPC	Agro-Processing and Packaging Center
FTE	Full-Time Equivalent
GDfH	Global Development for Humanity
HHs	Households
LBR	Liberia
PAPC	Processing Advisory and Planning Committee
SDGs	Sustainable Development Goals
SOPs	Standard Operating Procedures

Agenda



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Project Background and Timeline

Project Background

Key Challenges in Palala/Kowai Town, Kpaai District, Bong County



Post-Harvest Losses: Due to limited storage and pressing facilities, farmers lose up to 40% of their products before reaching the market.



Value Addition: Most crops are sold raw or with little manual processing, resulting in low farmgate prices and limited income diversification.



Market Access: Weak transport and storage infrastructure isolate rural farmers from major buyers in Gbarnga, Monrovia, and regional markets.



Infrastructure: No community-level processing or storage units in the area. This forces farmers to sell immediately after harvest at low prices or risk spoilage.



Low Quality and Supply: No standard processing, packaging, and quality control. Local products fail to meet market standards and consistently supply buyers.



SOLUTION

AGRO-PROCESSING & PACKAGING CENTER (APPC)



Project Background

Strategic Solution– APPC Overview



Capacity/Size: APPC facility with a total volume of 840 m³ (area of 168 m² and height of 5 meters) with a processing capacity of over 1000 tons per year.

Multi-Processing Function: The APPC facilitates the processing and packaging of key local agricultural products such as cassava, rice, palm oil, pepper, and tomatoes into value-added products.

Beneficiaries: Between 500 and 600 people, representing about 100–110 smallholder farming families, with a 20% potential for future expansion.

Optimal Location: Strategically located in Palala, Kpaai District, which ensures easy access for nearby farming clusters and connectivity to major regional markets.



Project Timeline



#	Project Timeline - Agro-Processing Center_ LBR	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	Key Implementation Milestones (Start Date Unknown)																												
1	Introductory meetings with county authorities, town chiefs, and key stakeholders																												
2	Secure project site, finalize land documents, and complete feasibility & environmental assessments																												
3	Tendering, contractor selection, and procurement of materials, machinery, and tools																												
4	Construct APC building, storage units, office space, and utilities																												
5	Vendor engagement, delivery, and installation of processing machines (cassava, palm, rice, pepper)																												
6	Engage farmers; begin trial processing; set up packaging, storage, and marketing systems																												
7	Link communities to APC and establish the Processing Center Management Committee (PCMC)																												
8	Set up monitoring and production efficiency system to track performance and impact																												

Project Objectives and Economic Impact

Key Project Objectives



1

Reduce Post-Harvest Losses

Cut crop spoilage by improving drying, storage, and processing facilities for cassava, rice, palm oil, and vegetables

2

Strengthen Farmer Cooperatives

Enhance farmers' skills in management, planning, and cooperative governance for long-term success

3

Add Value to Local Crops

Convert raw produce into high-value products to increase farmers' profitability.

4

Create Employment Opportunities

Generate direct and indirect job opportunities for youth and women in processing, packaging, logistics, and marketing

5

Improve Household Incomes

Boost smallholder earnings through value addition, cooperative sales, and stronger market linkages

6

Enhance Food Security and Nutrition

Ensure year-round processed food supply and improve nutrition

Key Economic Impacts



Production Impact (tons)

The APPC delivers **832 tons** per year, with excess capacity for potential growth in crop production.



Income Impact (\$)

Household income rises from \$636 to about \$992 **(+\$356, 56%↑)** driven by value addition and recovered losses.



Employment Impact (FTE*)

The APPC generates **27 full-time jobs** in processing, logistics, marketing, and farming.



Infrastructure

A modern APPC with multi-crop processing capacity strengthens local agro-industrial development and stimulates farming.



Market Access

Market access increases to around 60%, with sale prices increase by up to 18% due to improved quality and packaging.



Food Security

More HHs access sufficient and affordable food as seasonal shortages decline by about 25%.

*FTE stands for Full-Time Equivalent, meaning a standard full-time job with 172 working hours per month.

The APPC project contributes directly to key Sustainable Development Goals (SDGs)

1
NO
POVERTY



2
ZERO
HUNGER



8
DECENT WORK AND
ECONOMIC GROWTH



9
INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12
RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Impact on Production, Income, and Employment



Production (tons)

The APPC delivers **832 tons per year***, with excess capacity for potential growth in crop production.

Farmers in Palala/Kowai primarily produce processable crops such as cassava, rice, palm fruit, pepper, and tomatoes. Currently, most of these crops are sold raw, processed manually, or lost due to inadequate processing & storage, which are leading to 20–40% post-harvest losses.

The APPC introduces mechanized milling, pressing, drying, and packaging, which not only prevents these losses but also adds value to the crops.



Income Impact (\$)

Estimated increase in farmers' annual income is \$356 (**56% ↑**)

Farmers lose income because crops are sold raw and large portions are lost after harvest. The APPC efficiently processes produce and converts it into higher-value products at an affordable cost.

The effect of value addition and loss prevention increases marketable output and earnings. It will raise households' annual income from \$636 to about \$992, which equals 56% (\$356).



Employment Impact (FTE)

Creating **27 FTE jobs** in farming, logistics, and sales.

The APPC will create a total of 27 FTE jobs:

Job Created	FTE
Manager / Admin	1
Operators & Technician	4
Security & Cleaners	2
Sorting and Packaging	2
Loading	1
Farmers & Field Labor	17
Total FTE Jobs Created	27

Out of the 27 jobs created, 17 are related to farmers, who are the primary beneficiaries of the project.

* This is the current crop production of the target community. However, the full capacity of the APPC is over 1,000 tons per year.

Operational and Implementation Framework

Key Operational Aspects



Multi-Crop Processing

Handles over 6 local crops and vegetables using mechanized milling, pressing, drying, and packaging systems.



Quality & Efficiency

Consistent product quality with SOPs for cleaning and maintenance, and full traceability from farmer delivery.



Supply Chain & Market

Direct sourcing from farmer groups and linkages with local markets, retailers, and wholesalers.



Structured Database

Digital registry of supplier farmers, crop inventory, crop intake, payments and data management for efficient planning.



Capacity Building

Training for proper harvesting, storage, post-harvest handling, logistics, packaging, and marketing.



Contingency Capacity

APPC can scale to nearly twice its current processing capacity (554 tons) to handle seasonal peaks and production growth.

Project Implementation Framework



Community Engagement



Formation and training of a Processing Advisory and Planning Committee (PAPC), including farmers, local leaders, and the GDfH team to ensure ownership, transparency, and accountability.

Operations & Service Model



Farmers will receive membership to access services. The APPC does not buy crops; farmers pay affordable processing fees and retain product ownership, directly benefiting from value addition.

Capacity Building



Local staff and member farmers will be trained in equipment operation, hygiene standards, business management, record-keeping, cooperative governance, planning, harvesting, and logistics.

Collection & Aggregation System



The APPC will organize crop collection through farmer groups, coordinated by the PAPC to streamline supply, reduce losses, and ensure timely processing.

Market Linkage



APPC facilitates contracts with traders, retailers, feeding programs, and regional markets to secure steady demand and better prices.

Farmer Contribution



Farmer groups will develop and share seasonal supply plans with the APPC, guiding processing operations, payment planning, and storage needs.

Financial Sustainability



Processing fee revenue covers APPC operational costs; surplus will be reinvested into maintenance, expansion, cooperative strengthening, and other sustainable development activities.

Project Financials

Overview of Project Financials



 INITIAL INVESTMENT	Infrastructure & Setup \$87,737	+	Machinery, Equipment & Tools \$190,000	=	Total Investment \$276,737		
 ANNUAL OPERATIONAL COST	Personnel Cost \$21,960	+	Admin & Utilities Cost \$7,800	+	Other Costs \$6,000	=	Total Operating Costs \$5,760
 ANNUAL REVENUE & SAVINGS	Revenue (Annual) <i>Service charge = \$ per ton Charge - Year one baseline quantity 832 tons</i> \$70,119	-	Operating Cost (Annual) \$35,760	=	Saving Fund (Annual) \$34,359		
SUSTAINABILITY	The project is financially sustainable with long-term expansion potential.						

Disclaimer: Prices and revenue projections are subject to inflation and market fluctuations.

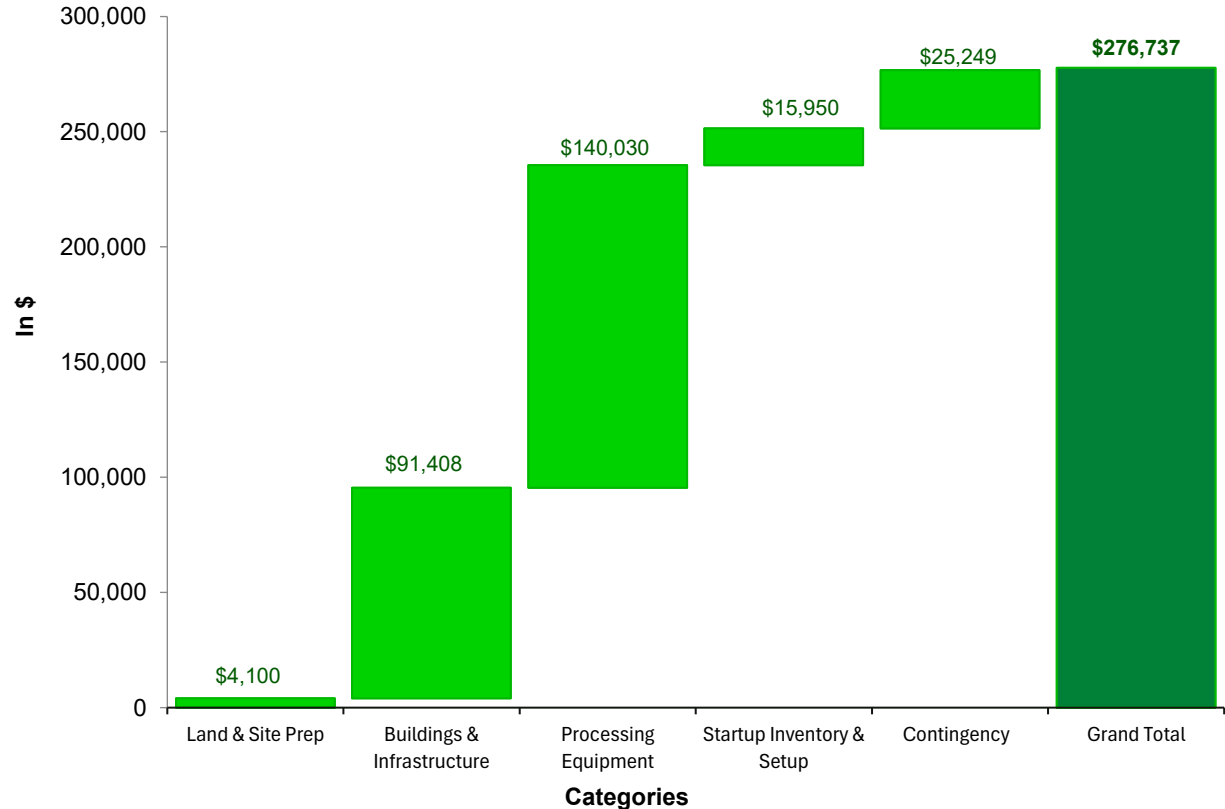
Project Financials

Total Initial Investment Costs



The chart illustrates the initial capital investment required to establish the Agricultural Processing Center (APPC) in Palala City, LBR.

The **total** setup investment amounts to **\$277,737**. Major cost components include the **land and construction** of the 840 m³ APPC facility (**\$95,508**), **processing equipment and machinery** (**\$140,030**), covering rice milling, cassava processing, palm oil pressing, tomato processing, and pepper drying units. The investment also includes startup inventory, tools, initial setup materials, and a 10% contingency for unforeseen expenses. All cost estimates are based on official supplier quotations and local contractor bids, with reduced pricing offered to GDFH due to its non-profit and community-oriented operational focus.



Project Financials

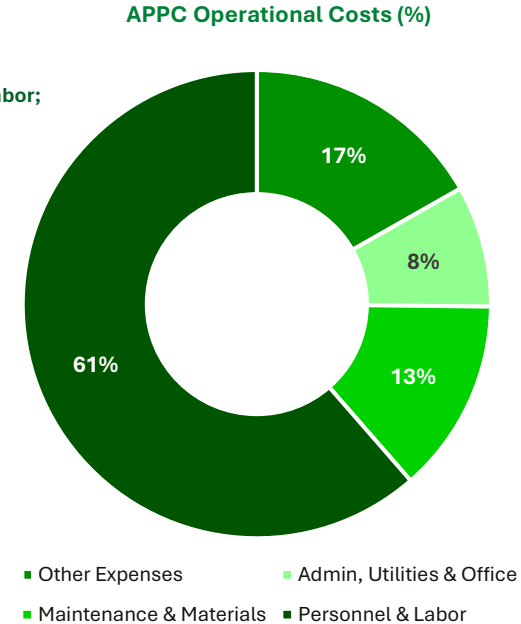
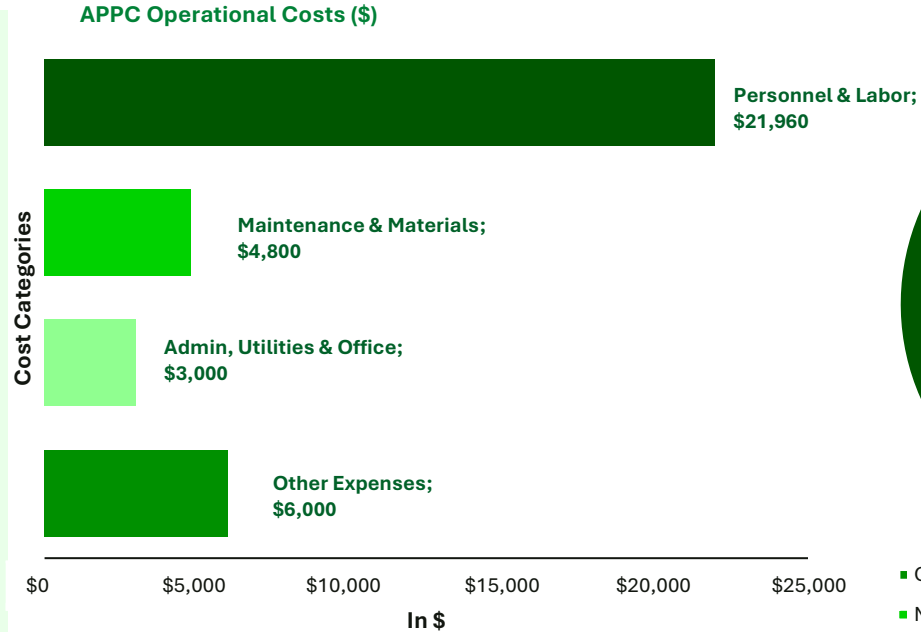
Annual Operating Costs



The charts illustrate the annual operating costs of the APPC, totaling \$35,760.

Personnel and labor represent the largest share with **\$21,960 (61%)**. **Maintenance and materials** account for **\$4,800 (13%)**, ensuring proper upkeep of machinery and supplies. **Administrative, utility, and office** expenses represent **\$3,000 (8%)**. The remaining operating costs fall under **other essential expenses (\$6,000, 17%)**.

Together, these expenditures will sustain efficient, reliable, and safe operation of the processing center.



Project Financials

Annual Revenues and Savings

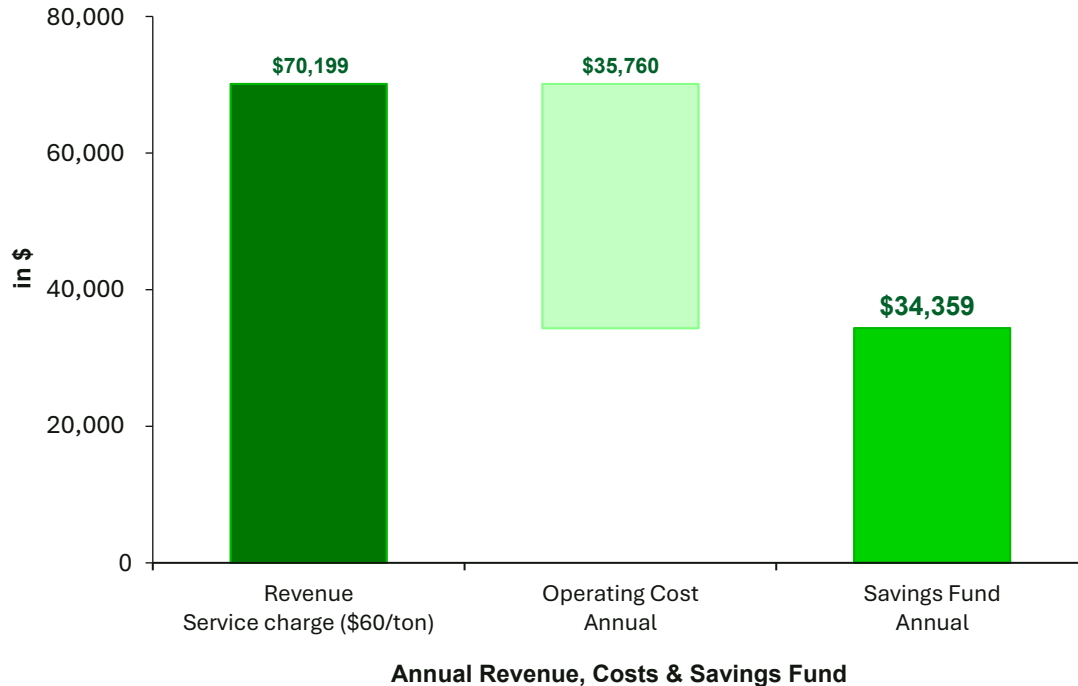


The chart presents the project's annual financial performance and long-term sustainability.

Annual revenue will be generated from the **service fee ranging from \$40 to \$100 per ton of crops**, with the potential for reduced per-ton costs as processing volumes increase in future years.

The major expense will be the **annual operating cost of \$35,760**, which includes staffing, maintenance, utilities, and other essential operational expenditures.

After accounting for all costs, the project yields an **annual savings fund of \$34,359**, demonstrating both its financial sustainability and its capacity for reinvestment in scaling this project or in supporting similar development initiatives.



Key Impact

Overview Project Impact



Value Addition

The APPC transforms raw agricultural products into higher-value goods, increasing market price and reducing post-harvest losses significantly boosting farmer productivity.



Income Growth for Farming HHs

By enabling value addition and recovering crops that were previously lost, farmers' annual income will increase by \$356 (56%), creating long-term economic resilience for more than 120 smallholder families.



Job Creation and Rural Employment

The project will generate 27 full-time equivalent jobs across farming, processing, logistics, and sales, strengthening the local labor market and enhancing economic opportunities for youth and women.



Market Access & Food Security

Improved processing, packaging, and storage will increase market access by 60%, reduce seasonal food shortages by 25%, and ensure households have more stable and affordable access to nutritious food.



Financially Sustainable and Scalable Development Model

With an annual expected surplus fund of \$34,359, the APPC demonstrates operational sustainability and thereby creates reinvestment capacity.

Thank You!



**We Sincerely Appreciate Your Attention and
Interest in Our Operations**



Our World, Our Responsibility

Join the Mission of Global Development For Humanity

Together, we can create a progressive world we can be proud of



Support

Contribute to our projects
to expand our impact



Partner

Collaborate with us to
promote a progressive world



Advocate

Spread the message to
increase awareness

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