



Our World, Our Responsibility

Project Concept
**AGRICULTURAL
WAREHOUSE CENTER
(AWC)**

**Pujehun Town, Pujehun District,
Sierra Leone**

Abbreviations



Abbreviation	Definition
\$	United States Dollar (USD)
AWC	Agricultural Warehouse Center
CWC	Community Warehouse Committee
FTE	Full-Time Equivalent (jobs)
GDFH	Global Development for Humanity
HHs	Households
ICT	Information and Communication Technology
MEP	Mechanical, Electrical & Plumbing
SDGs	Sustainable Development Goals
SOPs	Standard Operating Procedures

Agenda



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Project Background and Timeline

Project Background

Key Challenges in Pujehun District, Sierra Leone



Post-Harvest Losses: Farmers experience 15–30% post-harvest losses due to poor traditional storage conditions, reducing both income and food availability.



Inadequate Storage Infrastructure: Most products are stored in homes, temporary sheds, or open-air environments without climate control, causing quality deterioration and a limited shelf-life for both fresh and processed products.



Distress Selling & Weak Price Power: Without storage and aggregation, farmers are forced to sell immediately after harvest when prices are lowest, limiting bargaining power and price realization.



Aggregation & Market Coordination: There is no professionally managed rural logistics hub to support bulk aggregation, documentation, and structured market access, limiting supply reliability to buyers and traders.



Income Instability & Seasonal Oversupply: Without structured storage, seasonal production peaks lead to market oversupply and price collapse, reducing farmers' income stability and limiting long-term investment capacity.

SOLUTION



AGRICULTURAL WAREHOUSE CENTER (AWC)



Project Background

Strategic Solution – AWC Overview

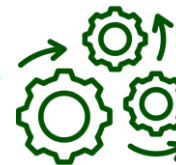


Capacity/Size: A 154.5 m², 5-meter-high climate-resilient warehouse with a storage capacity of 200 metric tons and an estimated annual throughput of up to 1,000 tons under a short-cycle storage model.

Core System Function: The AWC provides centralized aggregation, secure storage, inventory management, and structured documentation for fresh and processed agricultural products, strengthening market coordination and reducing post-harvest losses.

Beneficiaries: Serving 500+ smallholder farmers from Sawula & surrounding communities, with indirect benefits to over 3,000 people through improved income stability, food security, and market access.

Optimal Location: Located in Pujehun Town, serving Sawula and surrounding communities within a 1-acre integrated agro-complex alongside the processing and distribution centers, enabling operational synergy and value chain integration.



Project Timeline



#	Project Timeline - AWC Project_SRL	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6			
		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																								
1	Conduct stakeholder consultations with District and Chiefdom authorities, landowners, and key partners and initial nomination for CWC.																								
2	Secure land documentation; verify site suitability; complete feasibility assessment and environmental screening																								
3	Finalize tendering, procurement planning, and selection of contractors and suppliers (construction, MEP, storage systems)																								
4	Construct warehouse structure (foundation, blockwork, roofing, flooring, finishing works)																								
5	Install MEP systems (electrical wiring, lighting, generator, water tank, ventilation)																								
6	Install storage infrastructure (racking, pallets, crates, weighing scale) and set up office & ICT systems																								
7	Complete perimeter security lighting and external site works																								
8	Engage farmers, cooperatives, and community groups; introduce warehouse service model and operating procedures and formal establishment of CWC																								
9	Recruit and train warehouse staff (storekeeper and support staff) on inventory management, safety, and dispatch protocols																								
10	Commission warehouse facility; implement monitoring, inventory tracking, and operational handover																								

Project Objectives and Economic Impact

Key Project Objectives



1

Reduce Post-Harvest Losses

Reduce post-harvest losses by 20% through secure, climate-resilient storage and improved inventory management systems.

2

Strengthen Aggregation & Market Coordination

Provide centralized bulk storage and documentation systems to improve supply reliability and buyer confidence.

3

Improve Price Realization for Farmers

Enable strategic market timing and reduce distress selling by offering short-cycle storage services.

4

Create Employment Opportunities

Generate direct and indirect job opportunities in warehouse management, logistics, handling, and security operations.

5

Improve Household Incomes

Boost and stabilize seasonal incomes by reducing losses and mitigating price volatility during harvest peaks.

6

Enhance Value Chain Integration

Support operational synergy with the Agro-Processing and Input Distribution Center within the integrated agro-complex.

Key Economic Impacts



Production & Storage (tons)

The AWC handles up to **1,000 tons/year** through short-cycle storage, with a 200-ton maximum on-site storage capacity.



Income (\$)

500 Households save \$109 per year, which represents a 40% increase in annual HH income **(+\$109, 40%↑)**.



Employment (FTE*)

The AWC generates **4 direct FTE jobs** and supports **5–8 indirect FTEs** via logistics and trading.



Infrastructure

A modern and climate-resilient warehouse with ventilation, lighting, pallets/racking, water, weighing, and secure access systems.



Market Access

Bulk aggregation and improved storage enable more reliable supply, better market timing, and improved access to traders and bulk buyers.



Food Security

Reduced spoilage and improved storage of staples and processed goods strengthen year-round availability, benefiting **3,000+** people indirectly.

*FTE stands for Full-Time Equivalent, meaning a standard full-time job with 172 working hours per month or employment for 12 months per year.

The AWC project contributes directly to the 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 & Storage (tons)

The AWC handles up to **1,000 tons per year**, with a 200-ton maximum on-site capacity.

Farmers in Pujehun District currently experience 15–30% post-harvest losses due to inadequate traditional storage conditions, pests, and moisture damage.

In addition, without structured storage, seasonal oversupply leads to rapid price drops and forced distress selling immediately after harvest.

The AWC introduces secure, climate-resilient storage, reducing spoilage, stabilizing supply, and enabling strategic market timing, which leads to improved income and livelihoods.



Income (\$)

Estimated increase in households' annual income is \$109 (**40% ↑**).

Farmers lose income due to post-harvest losses and low farmgate prices during harvest peaks.

By reducing losses (\$30 per HH annually) and improving price realization through delayed sales (\$79 per HH), total additional income reaches \$109 per household per year. Across 500+ households, the combined annual income uplift exceeds \$54,000.

This represents an estimated 40% increase in annual HH income, raising average income from \$273 to \$382 per household.



Employment (FTE)

The AWC generates **4 direct FTE jobs** in warehousing and **5–8 indirect FTEs** via logistics and trading

The AWC creates 4 direct FTE jobs in warehouse operations.

Job Created	FTE
Storekeeper	1
Warehouse Support Staff	2
Security	1
Total FTE Jobs Created	4

In addition to direct employment, 5–8 indirect FTEs are supported through logistics, transport, aggregation services, and expanded trading activity.

Operational and Implementation Framework

Key Operational Aspects



Operation & Storage

Manages secure intake, short-cycle storage (3–8 days), inventory control, and structured dispatch of agricultural produce under standardized warehouse procedures.



Quality & Inventory Control

Implements Standard Operating Procedures (SOPs) for handling, ventilation, pest prevention, and full traceability from farmer delivery to market dispatch.



Service & Fee Management

Transparent storage fee system based on volume and holding period, ensuring affordability, cost recovery, and financial sustainability.



Governance & Oversight

The Community Warehouse Committee (CWC) supports compliance and grievance handling, while GDfH provides technical, operational, and financial oversight.



Capacity Building

Warehouse staff and local operators are trained in inventory management, record-keeping, safety protocols, logistics coordination, and customer service.



Resilience & Security

Perimeter fencing, controlled access, ventilation systems, surge protection, and contingency reserves protect against spoilage, theft, and operational risks.

Project Implementation Framework



Community Engagement



Formation and training of a Community Warehouse Committee (CWC), including farmer representatives and local leaders, working with GDfH to ensure ownership, transparency, and grievance handling.

Operations & Service Model



The AWC operates under a fee-based storage service model. Farmers retain ownership of their produce and pay affordable storage fees based on volume and holding period.

Capacity Building



Warehouse staff and member farmers are trained in inventory management, post-harvest handling, grading standards, record-keeping, logistics coordination, and warehouse compliance procedures.

Collection & Aggregation System



Structured crop intake and aggregation are coordinated through farmer groups, enabling organized storage, documentation, and timely dispatch to buyers.

Market Linkage



The AWC facilitates linkages with traders, wholesalers, processors, and regional markets to improve price realization and supply reliability.

Farmer Contribution



Farmers contribute through storage participation and fee payments, comply with storage standards, and coordinate seasonal supply planning to optimize turnover and market timing.

Financial Sustainability



Storage fee revenues cover operational costs; surplus funds are reinvested in maintenance, system improvement, reserve funds, and agro-complex strengthening.

Project Financials

Overview of Project Financials



 INITIAL INVESTMENT COST	Building & Construction \$33,213	+	Equipment & Storage Tools \$5,624	+	Security & Contingency \$4,126	=	Total Investment \$42,963
 ANNUAL OPERATIONAL COST	Personnel & Security \$4,440	+	Operations & Maintenance \$2,958	+	Contingency & Others \$2,456	=	Total Operating Costs \$9,854
 ANNUAL REVENUE & SAVINGS	Storage Revenue (annual) <i>unprocessed, processed and non-food commodities storage fee</i> \$63,031	-	Operating Cost (annual) \$9,854	=	Net Surplus (Annual) * \$53,177		
SUSTAINABILITY	The project is financially sustainable with long-term expansion potential.						

Project Financials

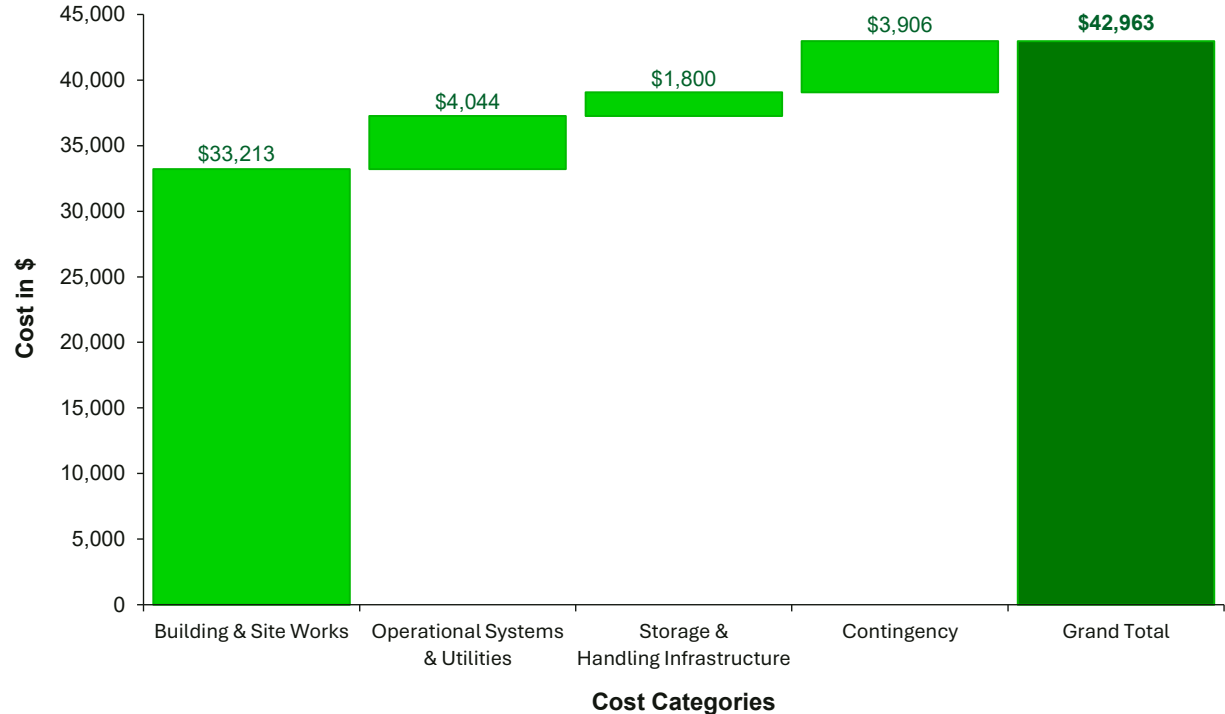
Total Initial Investment Costs



The chart illustrates the initial capital investment required to establish the Agricultural Warehouse Center (AWC) in Pujehun Town, serving Sawula and surrounding farming communities.

The **total** initial investment amounts to **\$42,963**, covering core infrastructure, operational systems, storage equipment, and contingency provisions. Major cost components include Warehouse **Building & Site Works** (\$33,213), **Operational Systems & Utilities** (\$4,044), **Storage & Handling Infrastructure** (\$1,800), and **Contingency** (\$3,906).

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

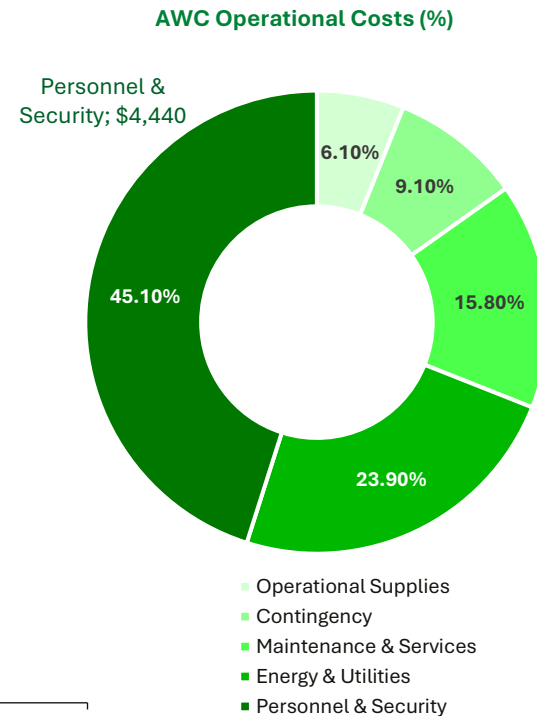
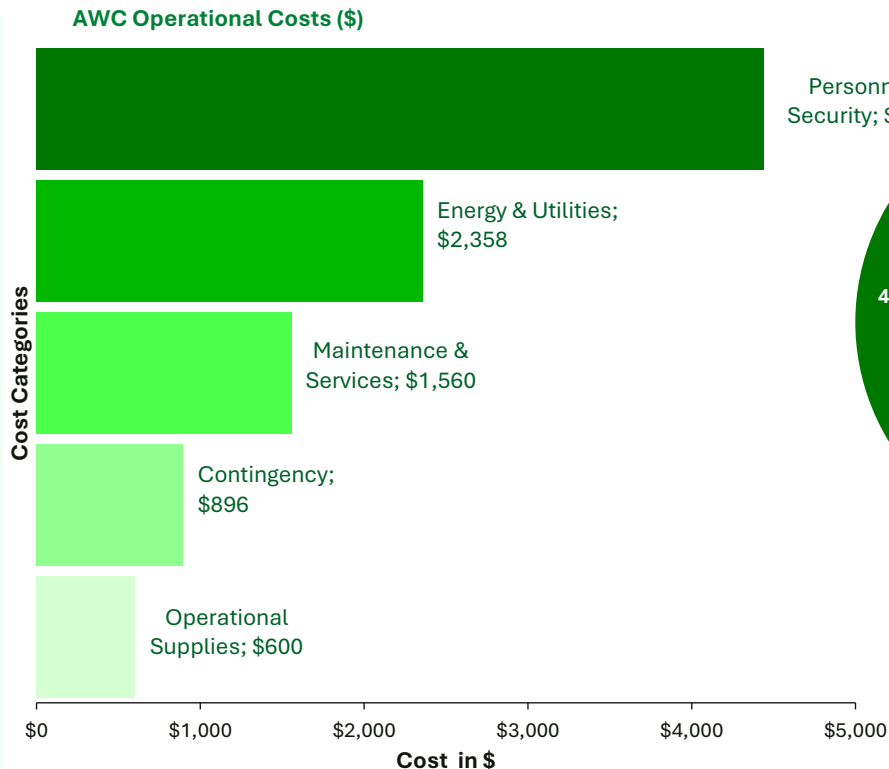
Annual Operating Costs



The charts illustrate the annual operating costs of the Agricultural Warehouse Center (AWC) in Pujehun Town, **totaling \$9,854 annually**.

Personnel & Security represent the largest cost item at **\$4,440 (45.1%)**, covering the storekeeper, two cleaners, and one security guard required for daily warehouse operations. **Energy & Utilities** account for **\$2,358 (23.9%)**, primarily generator fuel during seasonal or backup operation. **Maintenance & Services** total **\$1,560 (15.8%)**, including pest control, waste management, and building & equipment maintenance. **Operational Supplies** amount to **\$600 (6.1%)**, covering stationery, PPE, and cleaning materials. A **Contingency** of **\$896 (9.1%)** is included to address unforeseen operational risks and cost fluctuations.

Together, these expenditures ensure reliable storage operations, asset protection, and long-term financial sustainability of the AWC facility.



Project Financials

Annual Revenues and Savings

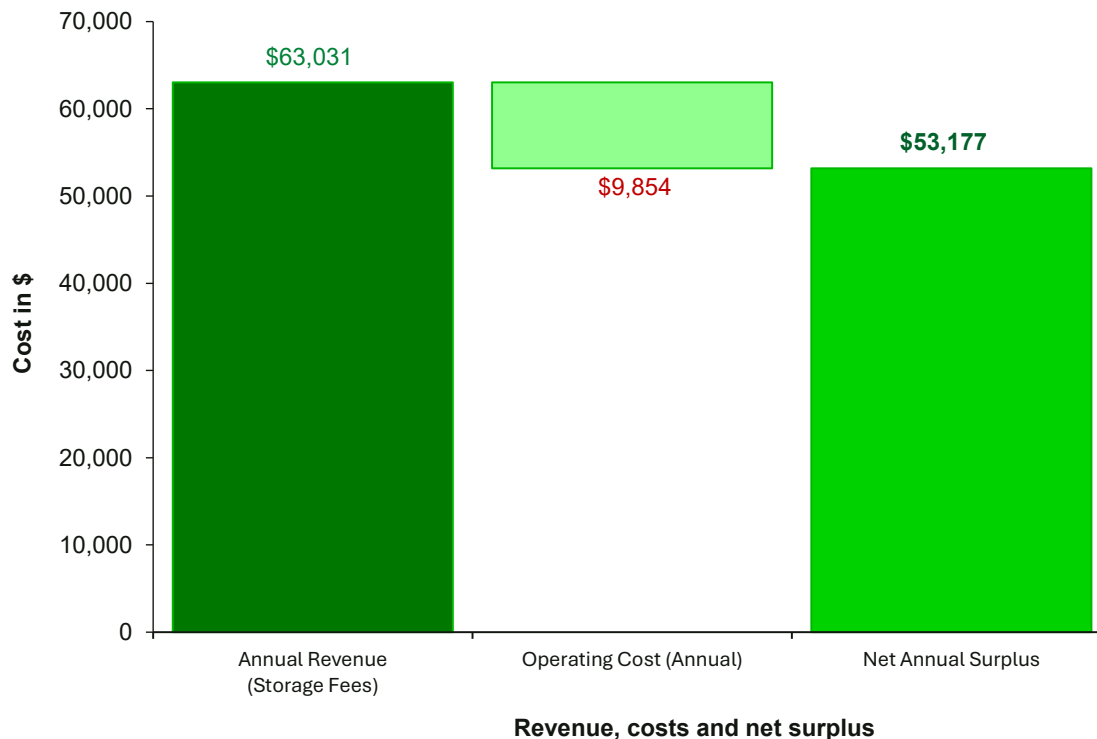


The chart presents the annual financial performance of the Agricultural Warehouse Center (AWC) and operational sustainability.

Annual revenue of **\$63,031** is generated through diversified storage services for unprocessed, processed, and non-food commodities under a short-cycle utilization model.

The total **annual operating cost** amounts to **\$9,854**, covering personnel, security, generator fuel, maintenance, pest control, waste management, supplies, and contingency provisions.

After accounting for all costs, the AWC generates a strong **net annual surplus** of **\$53,177**, demonstrating high operational efficiency, full cost coverage, and the capacity to build reserves and reinvest in future expansion and similar development initiatives.



Key Impact

Overview Project Impact



Reduced Post-Harvest Losses

The AWC provides secure, climate-resilient short-cycle storage (3–8 days), reducing post-harvest losses (currently 15–30%) through ventilation, pest control, grading, and structured inventory management.



Savings and Income-Equivalent Gains

By enabling bulk aggregation and delayed sales, farmers avoid distress selling during harvest peaks. Estimated additional income averages \$109 per household annually (40% increase) through reduced losses and improved price realization.



Jobs and Economic Activity

The AWC generates 4 direct FTE jobs (storekeeper, 2 support staff, security) and supports 5–8 indirect jobs through logistics, aggregation services, and expanded trading activities.



Market Reliability & Value Chain Integration

Structured crop intake, documentation, and organized dispatch improve supply reliability for traders and processors. Integration within the agro-complex strengthens coordination with processing and input distribution services.



Financially Sustainable and Scalable Development Model

With \$63,031 annual storage revenue, \$9,854 operating cost, and a strong \$53,177 net annual surplus, the AWC ensures full cost recovery, reserve fund capacity, and long-term operational sustainability with potential to finance similar development projects.

Thank You!



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Interest in Our Operations**



Our World, Our Responsibility

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



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Contribute to our projects
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Partner

Collaborate with us to
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Advocate

Spread the message to
increase awareness

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