Global Development For Humanity

GDfH

Our World, Our Responsibility

Project Concept

AGRO-LOGISTICS & MECHANIZATION SUPPORT(ALMS)

Pujehun/Sawula Town,

Pujehun District,

Sierra Leone

Abbreviations

Abbreviation	Definition
$	United States Dollar (USD)
ALMS	Agro-Logistics & Mechanization Support
SRL	Sierra Leone
GDfH	Global Development for Humanity
HH	Household / Farming Household
SDGs	Sustainable Development Goals
FTE	Full-Time Equivalent (172 hours/month)
MLC	Mechanization & Logistics Committee

Agenda

Project Background and Timeline

Project Background

Key Challenges in Sawula, Pujehun District, SRL

Logistics & transport

Loss From Limited Access to Markets:
Farmers cannot reach regional buyers due to weak transport connections, forcing them to sell produce cheaply to middlemen at the farm gate.

Lack of Reliable Transport:
Farmers depend on irregular transport providers who often delay or cancel their services. As a result, crops can remain in the field for days or become spoiled..

High Transport Costs:
Hiring motorbikes or private trucks is expensive and unaffordable for most farmers. No shared or cooperative-owned transport option.

Mechanization & Tractor

Limited or No Access to Mechanized Tools:
Most farmers rely on manual labor or animal traction. This reduces the area of cultivated land and delays essential farming tasks.

Seasonal Labor Shortages:
During land preparation and harvesting, labor demand exceeds supply. These delays result in reduced yields and missed planting windows.

High Cost of Private Services:
Private tractor/harvester owners charge high hourly/acre rates, and many do not operate in remote districts.

SOLUTION

AGRO-LOGISTICS & MECHANIZATION SUPPORT (ALMS)

Project Background

Strategic Solution– (ALMS Overview)

Capacity/Size:

Tractor: Prepares 2 hectares/day; up to 300 hectares annually.

Truck: 5-ton loading capacity; transports 1,500+ tons/year.

Field-to-Market Services:

ALMS improves timely plowing and harrowing, helps farmers expand into uncultivated fields, and solves harvesting and transport challenges so farms can better connect with processors and markets.

Beneficiaries:

The project will directly benefit 800–900 people, representing over 150 smallholder farming families, with the potential to expand to surrounding communities.

Project Timeline

	Project Timeline Agro-Logistics & Mechanization Support (ALMS), Sierra Leone	Month 1				Month 2				Month 3				Month 4				Month 5			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
#	Key Implementation Milestones																				
1	Project start-Up, mobilization & planning,consultations with farmers and district authorities; establishment of the management committee																				
2	Development of operational guidelines, truck service protocols, maintenance schedules, and the fuel management system.																				
3	Procurement, delivery, inspection, registration & insurance																				
4	Training & Systems Setup, recruitment and training of operators; establishment of coordination platforms between GDfH, farmers, and service request systems																				
5	Launch of initial tractor and truck service operations for farms and processing centers or market.																				
6	Full Operationalization, monitoring, evaluation, handover & reporting																				✓

Project Objectives and Expected Economic Outcomes

Key Project Objectives

Key Objectives of ALMS

1

Productivity Through Mechanization

Provide affordable tractor services to expand cultivated land, reduce labor bottlenecks, and boost yields for smallholder farmers.

2

Reduce post-harvest losses

Ensure timely transport from farms to markets and processors using the cargo truck to minimize spoilage and protect product quality.

3

Strengthen Value-Chain Linkages

Improve connections between farms, storage facilities, processing centers, and markets through reliable ALMS transport and mechanization services.

4

Create Employment Opportunities

Generate direct and indirect job opportunities for youth and women in mechanization, logistics, marketing and support services

5

Improve Household Incomes

Boost smallholder earnings by reducing manual labor, cutting post-harvest losses & transportation expenses, and enabling more frequent deliveries.

6

Farmer Cooperatives & Coordination

Enhance cooperative capacity for scheduling mechanization services, managing shared transport, and ensuring fair and efficient access for all members.

Key Economic Uplifting Impacts

Key Economic Impacts

Production Impact (tons)

Under ALMS, the tractor prepares 240 hectares of land per year, and the truck transports 1,200 tons of crops per year.*

Income Impact ($)

Annual HH income increases from $273 to $459 (+$186, +68%) driven by cost savings, more cultivated area, and reduced losses.

Employment Impact (FTE*)

The ALMS creates 5 full-time equivalent jobs in driving, logistics, loading, and support services.

Strengthened Cooperative Systems

Mechanization and transport services are managed through shared cooperative governance and a cost-recovery model.

Market Access & Value-Chain

The ALMS truck expands farmer access beyond local village markets to district and regional buyers.

Food Security

More households gain access to affordable food due to increased cultivation, reduced spoilage, and more stable market supply.

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

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

*Tractor: Assumes land preparation capacity of 2 hectares per day over 120 operational days per year (average seasonal availability).
Transport Vehicle: Assumes 5 tons per trip × 2 trips per day over 20 km routes, operated for 120 days annually.

Impact on Production, Income, and Employment

Production (tons)

Tractor prepares 240 hectares/year, and the truck transports 1,200 tons/year of crops.

Farmers in rural Pujehun/Sawula traditionally rely on manual labor, which is costly and delays land preparation, and limits the cultivated area. Without reliable transportation, crops often spoil or are lost before reaching local and larger markets.

ALMS mechanization and logistics services will eliminate these issues, increase production efficiency and total output. As a result, 25% more land will be cultivated, and at least 30% of farming costs will be reduced.

Income Impact ($)

Estimated increase in farmers' annual income is $ 186 (68% ↑)

Farmers lose income due to high labor and transportation costs, and underutilization of land.

Through ALMS services, 25% more land would be cultivated, farm costs will be reduced by 30%, and post-harvest losses can be prevented.

Combined, these savings and productivity gains will raise average household income from $273 to $459 per year, representing a 68% (+$186) increase.

Employment Impact (FTE)

Creating 5 FTE jobs in driving, logistics, loading, and support services.

The ALMS project will create a total of 5 FTE jobs:

Job Created	FTE
Tractor Operator	1
Truck Driver	1
Loading and support service	2
Admin & Maintenance	1
Farmers & Field Labor	Canceled with tractor labor saving
Total FTE Jobs Created	**5**

The 25% increase in farming will create additional jobs, but using tractors could save labor allocated. The resulting effect is canceled out.

Operational and Implementation Framework

Key Operational Aspects

Mechanization Services

Tractor operations can prepare over 240 hectares of land each year at an affordable rate per hectare.

Logistics Services

Transport of agricultural inputs to farms, and timely and efficient farm-to-market transport of crops at an affordable fee.

Cooperative Governance

Services are managed through farmer groups and cooperatives for transparent scheduling and strong market links.

Structured Database

A digital registry of farmers, crop seasons, service requests, and payment history enables efficient planning and coordination.

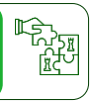
Sustainability Model

The project operates on a cost-recovery approach that charges affordable service fees with flexible payment options.

Contingency Capacity

ALMS can scale operations by up to 50% to meet seasonal peaks and increasing demand.

Project Implementation Framework

Community Engagement 	Initial meetings with chiefs, landowners, and farmer groups to establish the Mechanization & Logistics Committee (MLC) for planning and coordination.
Operations Model 	Farmers will be registered as members to access services. Member farmers will pay affordable, service fees based on pre-planned seasonal requests for land preparation and transport.
Collection & Aggregation 	Well organized land preparation and transport service coordinated by the MLC will reduce post-harvest losses, improve delivery reliability, and lower transportation costs for farmers.
Farmer Contribution 	Farmer groups will prepare and share seasonal farming plans with the MLC, which will guide tractor scheduling, transportation, and payment planning for efficient service delivery.
Financial Sustainability 	Revenues from land preparation and transportation fees will cover ALMS operational costs; surplus will be reinvested into maintenance, expansion, and other sustainable development activities.

Project Financials

Overview of Project Financials

INITIAL INVESTMENT

Tractor Purchase $33,178 + Transport Vehicle $30,967 + Contingency $ 5,362 = **Total Investment $ 69,507**

ANNUAL OPERATIONAL COST

Personnel Cost (Annual) $ 2,400 + Maintenance & Fuel Cost (Annual) $ 18,415 + Other Costs $ 1,293 = **Total Operating Costs (Annual) $ 22,108**

ANNUAL REVENUE & SAVING

Revenue (Annual): Tractor Fee $ 15,835 + Transport Vehicle Fee $ 21,114 − Operating Cost (Annual) $ 22,108 = **Saving Fund (Annual) $ 14,840**

SUSTAINABILITY

The project is financially sustainable with long-term expansion potential.

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

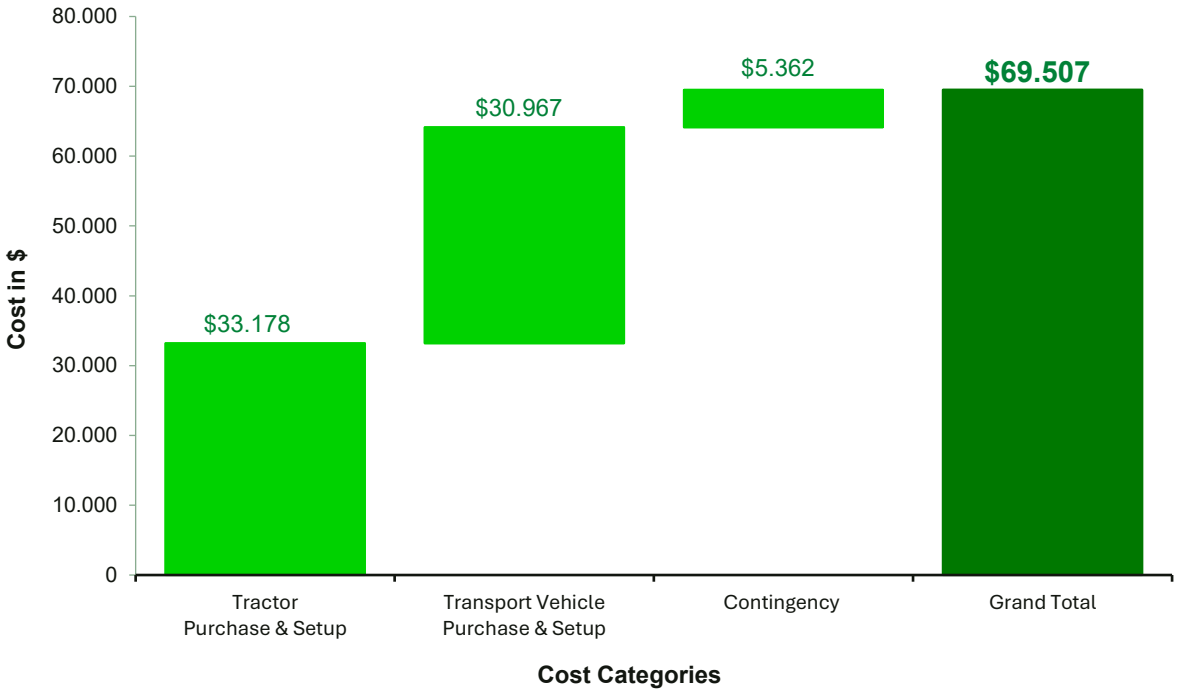
Project Financials

Total Initial Investment Costs

The chart illustrates the total initial investment required to establish the Agro-Logistics & Mechanization Support (ALMS) project in Pujehun SRL.

The total setup cost is $69,507. Key cost components include the purchase & setup of the tractor ($33,178) and the transport vehicle ($30,967), which together form the foundation of the project. The investment also includes a contingency which will cover price variations, initial servicing, spare parts, and other essential startup and 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.



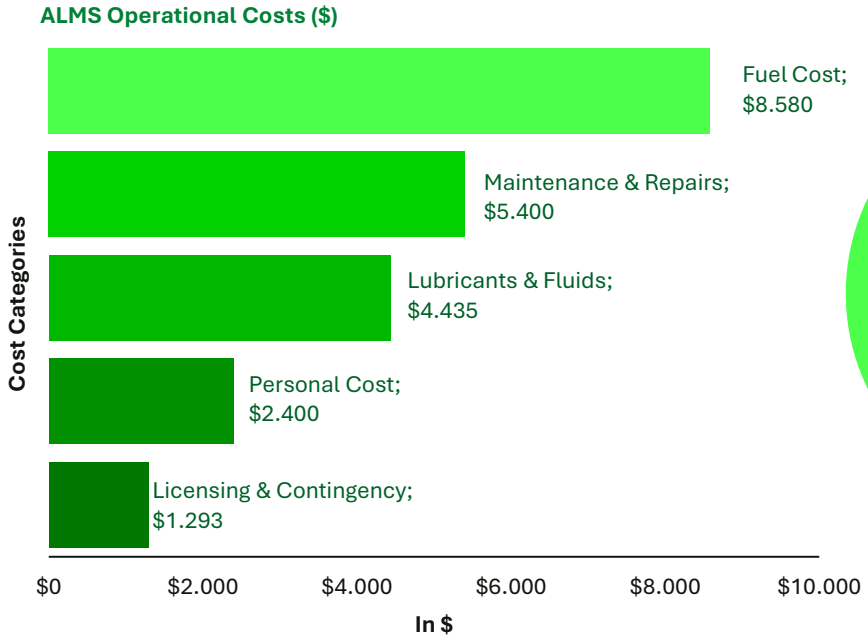
Project Financials

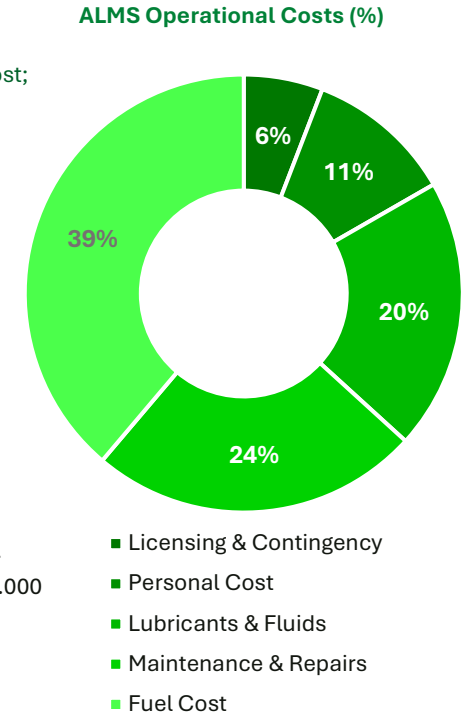
Annual Operating Costs

The annual operating cost of ALMS totals $22,108, shown in the charts.

The cost is dominated by fuel ($8,580; 39%) and lubricants ($4,435; 20%), which are essential for continuous operation of both the tractor and transport vehicle. Maintenance & repairs amount to $5,400 (24%) of the total cost, while personnel expenses account for $2,400 (11%). Licensing and contingency make up the remaining $1,293 (6%) of annual expenses.

Together, these expenditures will sustain the efficient, reliable, and safe operation of the transport and mechanization services.





Project Financials

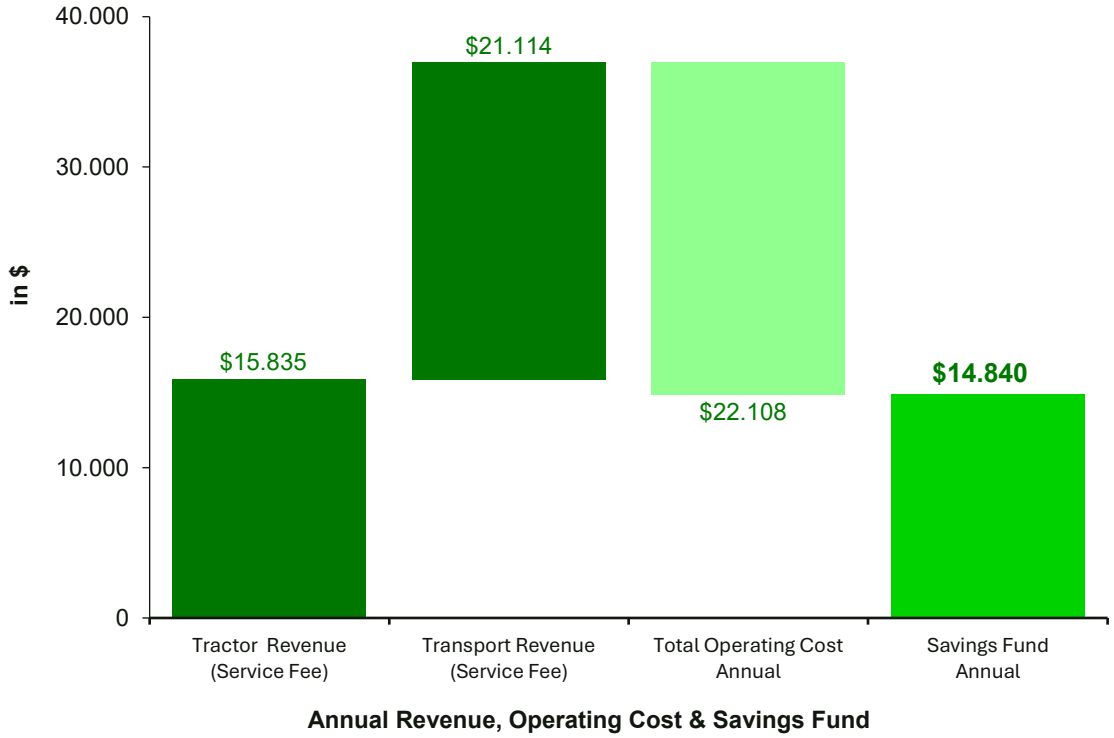
Annual Revenues and Savings

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

Annual revenue will be generated from service fees charged for land preparation and transport services, totaling $36,948 *($15,835 from tractor fees and $21,114 from transport fees*).

The major expense will be the annual operating cost of $22,108, which includes fuel, lubricants, maintenance, wages, licensing, and contingency. These expenditures will ensure reliable service delivery throughout the farming season.

After accounting for all operating costs, the project will yield an annual savings fund of $14,840, demonstrating its financial sustainability and its capacity for reinvestment in scaling this project or supporting similar development initiatives.



Key Impact

Overview Project Impact

Strengthened Local Agro-Economy

The ALMS-SRL will enhance agricultural productivity by enabling timely land preparation and transport, which will reduce delays, lower production costs, and increase the volume of crops reaching markets and processing centers.

Income Growth for Farming Households

By expanding cultivated land areas (+ 25%) and reducing labor & transport costs (+30%), farmers' annual net income will increase by approximately $186 per household (68%), improving long-term economic resilience for more than 150 smallholder families.

Job Creation and Rural Employment

The project will create 5 FTE jobs in tractor operation, transport logistics, coordination, and seasonal labor. Indirect employment will grow as larger cultivated areas increase demand for planting, weeding, and harvesting labor across the communities.

Market Access & Food Security

Reliable transport will reduce post-harvest losses and ensure produce reaches markets on time. This will increase market access, stabilizes crop availability year-round, and strengthens food security in Sawula, Pujehun Town, and surrounding villages.

Financially Sustainable and Scalable Service Model

With an annual savings of $14,840, ALMS demonstrates strong financial sustainability and the capacity to be reinvested in future upgrades and expand to other communities. The project will operate on a cost-recovery model which will ensure long-term continuity.

Thank You!

We Sincerely Appreciate Your Attention and Interest in Our Operations

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