



Our World, Our Responsibility

Project Concept
**AGRO-LOGISTICS &
MECHANIZATION
SUPPORT (ALMS)**

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

Abbreviations



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

Agenda



01	Project Background and Timeline	4
02	Project Objectives and Economic Impact	8
03	Operational and Implementation Framework	12
04	Project Financials	15
05	Key Impact	20

Project Background and Timeline

Project Background

Key Challenges in Palala/Kowai, Kpaai District, LBR



Logistics & Transport

Loss From Limited Access to Markets:

Farmers cannot reach regional buyers due to poor 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 services. As a result, produce may remain in the field for days or spoil.

High Transport Costs:

Hiring motorbikes or trucks is expensive and often unreliable. There is no shared or cooperative transport system available.

Mechanization & Tractor

Limited or No Access to Mechanized Tools:

Most farmers rely on manual labor or animal traction. This reduces the cultivated land and delays farming activities.

Seasonal Labor Shortages:

During land preparation and harvesting, labor demand exceeds supply. This results in delays, reduced yields, and missed planting seasons.

High Cost of Private Services:

Private tractor/harvester owners charge high hourly/acre rates, and many providers do not operate in remote districts.



Project Background

Strategic Solution – ALMS Overview



Capacity/Size:

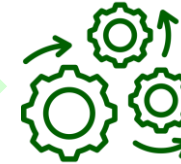
Tractor: Prepares up to 2 hectares per day; over 300 hectares annually.

Truck: 7-ton capacity, transports over 1,500 tons/year.



Field-to-Market Services:

ALMS improves timely plowing and harrowing. It helps farmers expand uncultivated areas, solves harvesting and improves transport. This strengthens connections between farms, processors, and markets.



Beneficiaries:

The project will directly benefit 800–900 people, including over 150 farming families. There is strong potential for expansion into surrounding communities.



Project Timeline



#	Project Timeline - ALMS 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	Project Start-Up, Mobilization & Planning, including consultation meetings with farmers and establishment of the management committee.																												
2	Develop operational guidelines for truck and tractor services, including maintenance and fuel management.																												
3	Complete procurement, delivery, inspection, registration, and insurance.																												
4	Operator recruitment, training, and systems setup for logistics between GDfH and farmers.																												
5	Deployment of services and pilot operations for tractor and truck services for farms and processing centers.																												
6	Full operationalization, monitoring, evaluation, handover, and reporting.																												

Project Objectives and Economic Impact

Key Project Objectives



1

Productivity Through Mechanization

Provide affordable tractor services to expand cultivated land, reduce labor bottlenecks, and increase farmers' productivity.

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 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 Impacts



Production Impact (tons)

Under ALMS, the tractor prepares **260 hectares** of land per year, and the truck transports **1,176 tons** of crops per year.*



Income Impact (\$)

Annual HH income increases from \$636 to \$920 **(+\$284, +45%)** driven by cost savings, more cultivated area, and reduced losses.



Employment Impact (FTE*)

The ALMS creates **5 full-time jobs** in transport, 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 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



*Tractor: Assumes land preparation capacity of 2 hectares per day over 130 operational days per year (average seasonal availability).
Transport Vehicle: Assumes 7 tons per trip and two routes to Palala or to Monrovia, operated for 144 days annually.

Impact on Production, Income, and Employment



Production (tons)

Tractor prepares **260 hectares/year**, and the truck transports **1,176 tons/year** of crops.

Farmers in rural communities in Kpaai 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 eliminate these issues, increasing production efficiency and total output. As a result, 25% more land is cultivated, and at least 25% of land preparation & labor-related costs are reduced.



Income Impact (\$)

Estimated increase in farmers' annual income is \$284 (**45% ↑**)

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

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

Combined, these savings and productivity gains raise average household income from \$636 to \$920 per year, representing a 45% (+\$284) increase annually.



Employment Impact (FTE)

Creating **5 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 services	2
Admin & Maintenance	1
Farmers & Field Labor	Canceled with tractor labor saving
Total FTE Jobs Created	5

The net employment effect is balanced because the tractor reduces manual labor needs, but 25% expanded land cultivation generates additional jobs.

Operational and Implementation Framework

Key Operational Aspects



Mechanization Services

Tractor operations prepare over 260 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 register as members to access ALMS services. Member farmers pay affordable, standardized service fees based on pre-planned seasonal requests for land preparation and transport.

Collection & Aggregation



Organized land preparation and transport services coordinated by the MLC to reduce post-harvest losses, improve delivery reliability, and lower transportation costs for farmers.

Farmer Contribution



Farmer groups prepare and share seasonal farming plans with the MLC, which guides tractor scheduling, transportation, and payment planning for efficient service delivery.

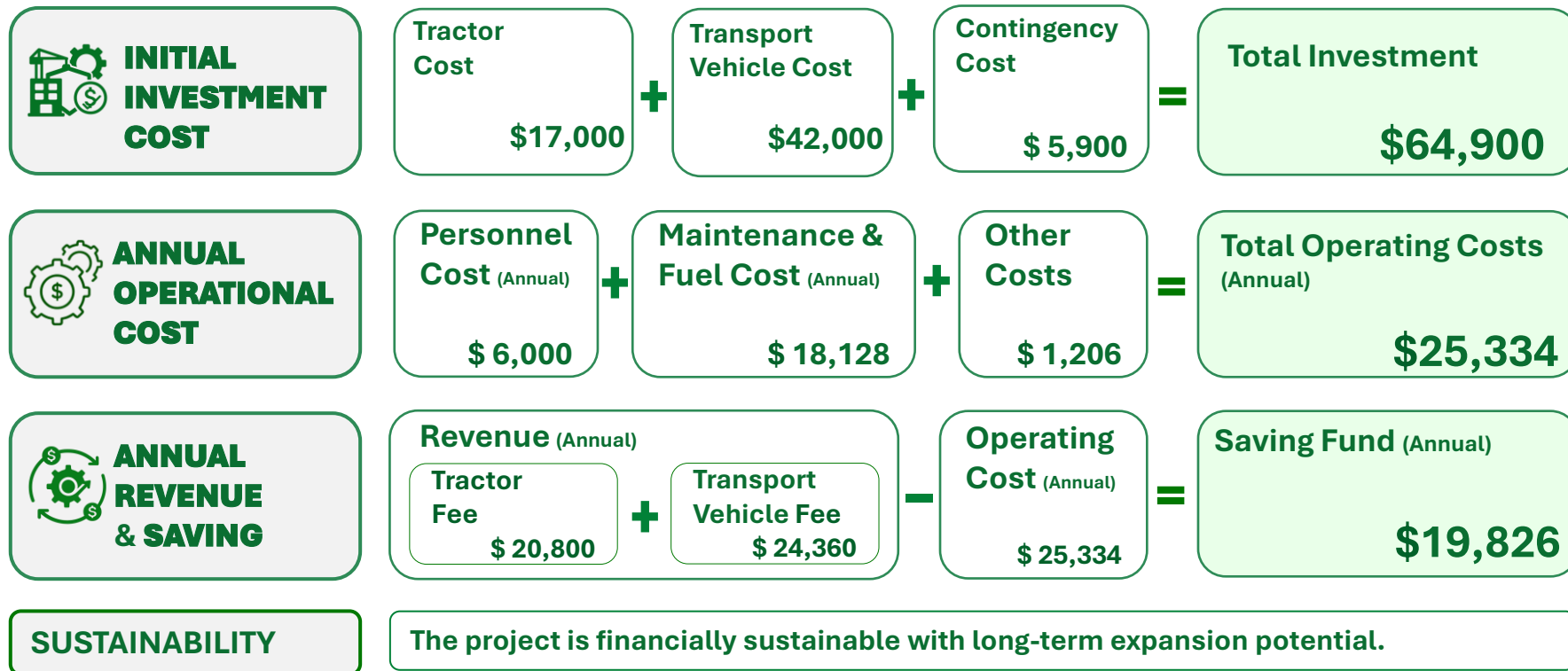
Financial Sustainability



Revenues from land preparation and transportation fees cover ALMS operational costs; surplus is reinvested into maintenance, expansion, and other sustainable development activities.

Project Financials

Overview of Project Financials



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

Project Financials

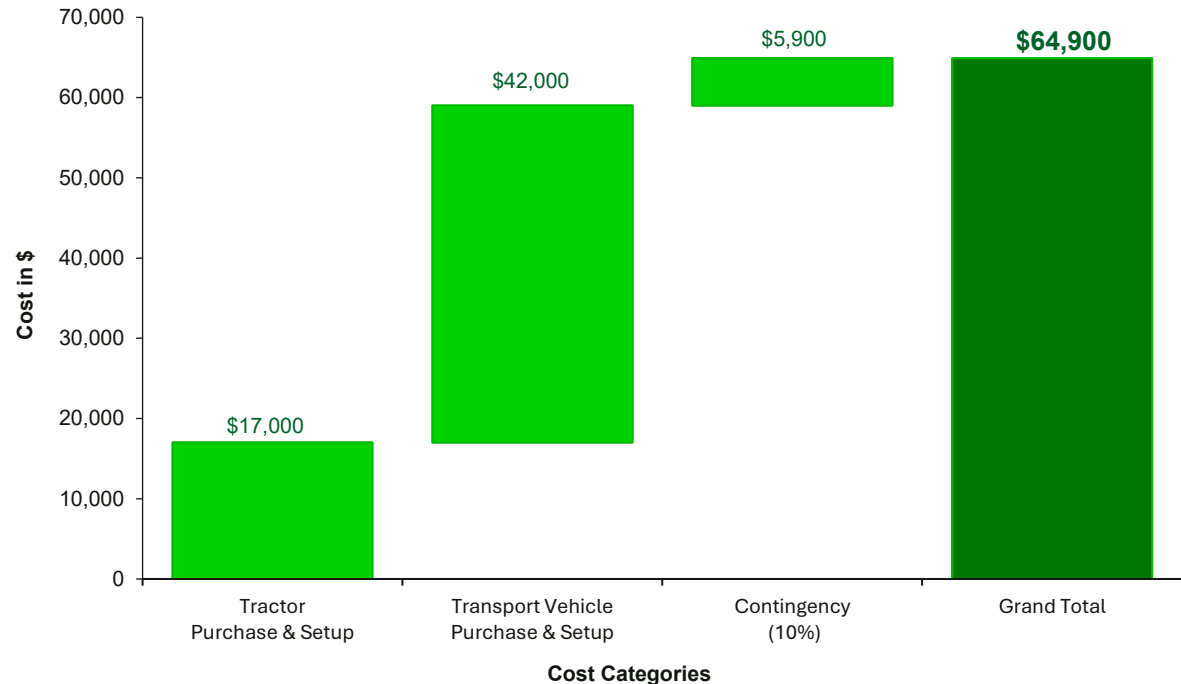
Total Initial Investment Costs



The chart illustrates the total initial investment required to establish the Agro-Logistics and Mechanization Support (ALMS) project in Kpaai, LBR.

The **total setup cost** is **\$64,900**. Key cost components include the purchase & setup of the **tractor (\$17,000)** and the **transport vehicle (\$42,000)**, which together form the foundation of the project. The investment also includes a **10% contingency** cost to 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

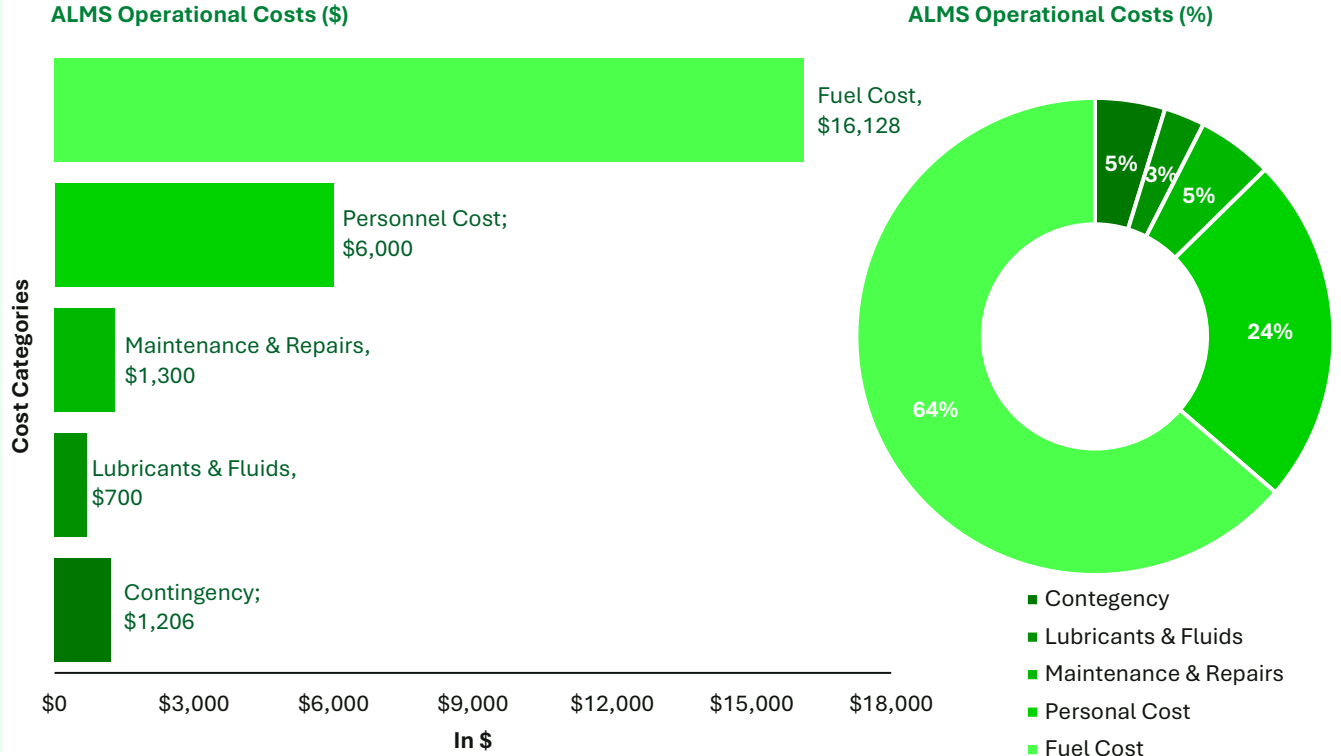
Annual Operating Costs



The annual operating cost of ALMS totals \$25,334, shown in the charts.

The cost is dominated by **fuel (\$16,128; 64%)** and **lubricants (\$700; 3%)**, which are essential for continuous operation of both the tractor and transport vehicle. **Personnel expenses** are another key cost which account for **\$6,000 (24%)**, while **Maintenance & repairs** amount to **\$1,300 (5%)** of the total cost, **contingency** makes up the remaining **\$1,206 (5%)** of annual expenses.

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



Project Financials

Annual Revenues and Savings

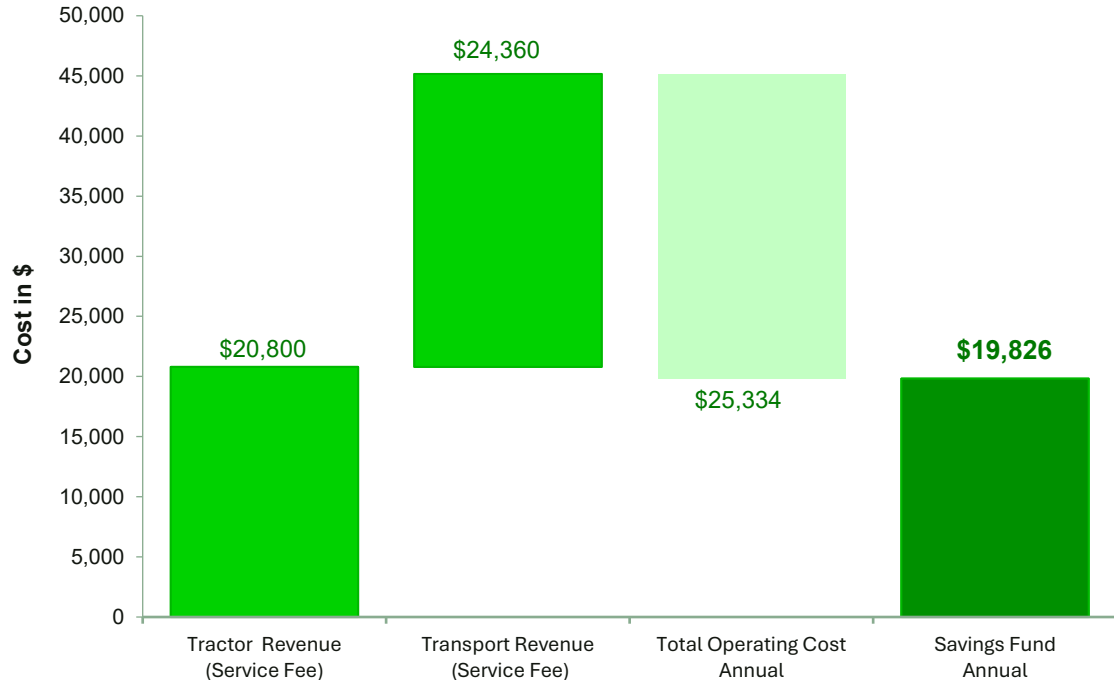


The chart presents the ALMS LBR project's annual financial performance and long-term operational sustainability.

Annual revenue is generated from **service fees** charged for land preparation and transport services, totaling **\$45,160** (\$20,800 from tractor fees and \$24,360 from transport fees).

The major expense is the **annual operating cost** of **\$25,334**, which includes fuel, lubricants, maintenance, wages, and contingency. These expenditures ensure reliable service delivery throughout the farming season.

After accounting for all operating costs, the project yields an annual savings fund of **\$19,826**, demonstrating its financial sustainability and its capacity for reinvestment in scaling this project or supporting similar development initiatives.



Annual Revenue, Operating Cost & Savings Fund

Key Impact

Overview Project Impact



Strengthened Local Agro-Economy

ALMS enhances agricultural productivity for over 150 HHs by enabling timely land preparation and transport, reducing delays, lowering production costs, and increasing 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 (25%), farmers' annual net income increases by approximately **\$284** per household (45%), improving long-term economic resilience for more than 150 farming families.



Job Creation and Rural Employment

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



Market Access & Food Security

Reliable transport reduces post-harvest losses and ensures produce reaches markets on time. This increases market access, stabilizes crop availability year-round, and strengthens food security in Kowai, Palala Town, and surrounding villages.



Financially Sustainable and Scalable Service Model

With an annual savings of \$19,826, ALMS demonstrates strong financial sustainability and the capacity to reinvest in future upgrades and expand to other communities. The project operates on a cost-recovery model that ensures long-term continuity.

Thank You!



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Advocate

Spread the message to
increase awareness

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