INVESTMENT FACTSHEET

MAIZE

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Report by:
GROUNDD

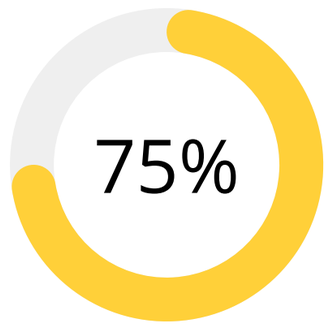
INVESTMENT FACTSHEET

CATALYSING SUSTAINABILITY AND PRODUCTION OF MAIZE IN VANDUZI AND BARUE DISTRICTS

MANICA, MOZAMBIQUE

ENABLING CONDITIONS - CATALYSTS FOR SUCCES

Willingness of communities to adopt Climate Smart Agriculture (CSA) and Nature-based Solutions (NbS)
Communities support maize due to food security but need technical assistance. 'Many farmers in communities such as Bellas and Chindengue described frequent crop failures linked to insufficient irrigation and soil degradation.'



Legal or policy framework supporting value chains
Existing policies are not effectively enforced. 'Storage and processing facilities exist but are underutilized, causing post-harvest losses. 'Further research is needed to map existing non-tariff measures and barriers.

Legal rights to access and use land/resources
Land tenure is largely customary, limiting investments. 'Most producers access land through customary practices, as recognized under the Land Law Regulations, specifically in Articles 9 and 10.'

Community participation and acceptance
Farmers are engaged, but technical knowledge gaps remain (including rotation, seed banks, irrigation, pest management, soil health). 'Maize is culturally and economically significant, ensuring community participation.'

Governance structures supporting enforcement
Cooperatives provide some structure, but enforcement is weak. 'Farmer associations help with production but have limited power to negotiate prices.'

FINANCIAL VIABILITY

ASSUMPTIONS

- Yield per hectare
- Post-Harvest losses
- Storage Infrastructure Investment
- Training and Capacity Building
- Irrigation System Investment
- Land Preparation Costs

SCENARIOS

1 Business-as-usual: Represents the conventional farming approach, where smallholder farmers rely on rain-fed agriculture with minimal investment in soil fertility, irrigation, pest management, and storage infrastructure.

2 Transformative change: Incorporates CSA and NbS, integrating improved soil and pest management, irrigation systems, organic inputs, and cooperative market structures to enhance productivity and resilience.

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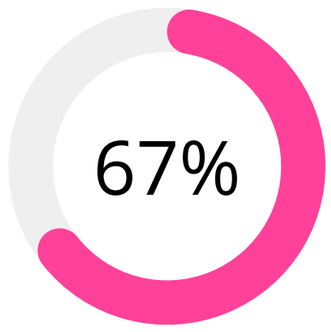
FINANCIAL VIABILITY - THRIVING ENTERPRISES

Use of resources and revenue
Maize is widely grown for subsistence, but revenues are inconsistent and often low due to poor market access, high post-harvest losses, and price volatility. CSA practices could improve returns but adoption remains limited.



Market demand
There is strong domestic demand for maize, both for consumption and animal feed. Market fragmentation and intermediary dominance suppress farmer earnings.

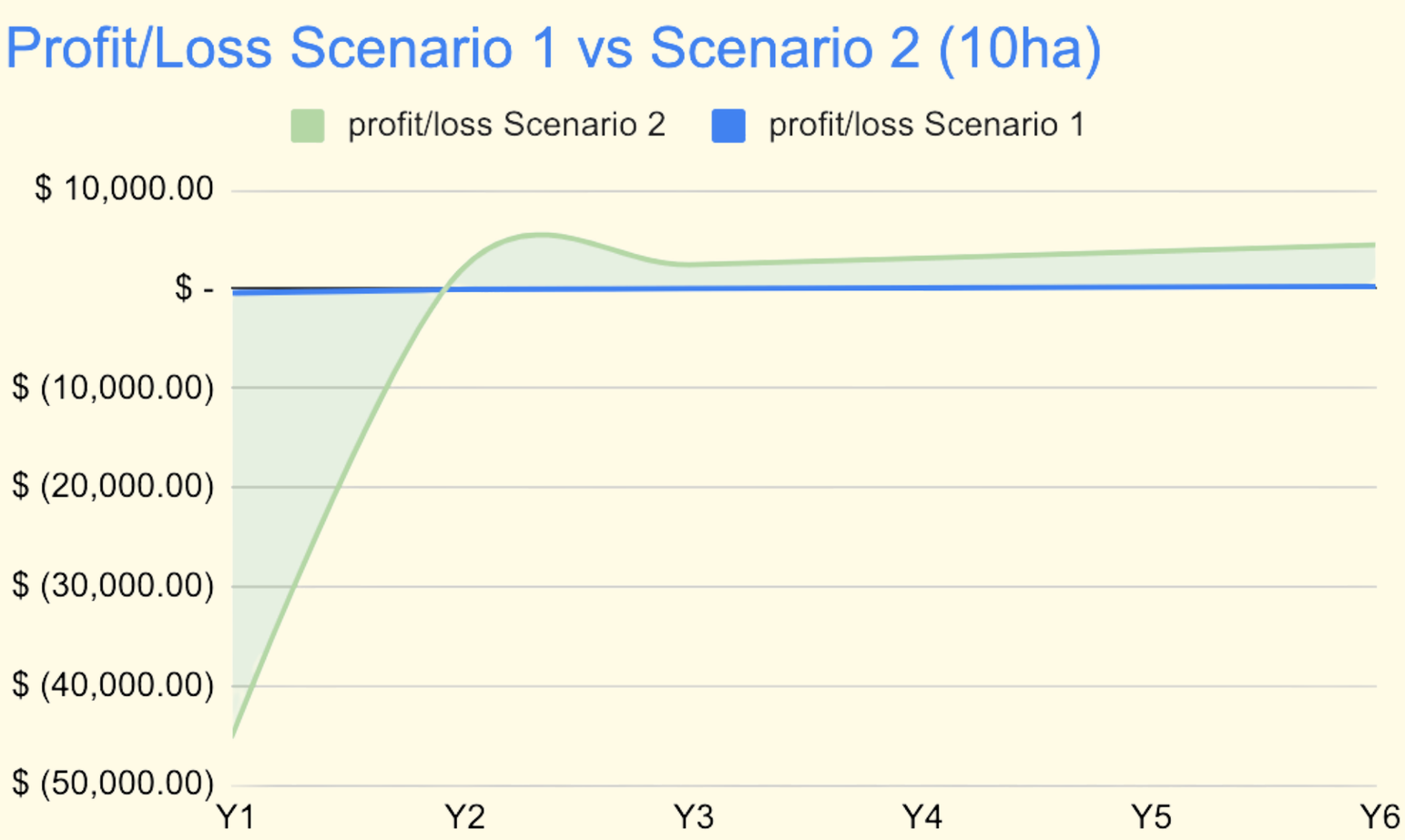
Production skills and infrastructure
Production depends heavily on manual labor, rain-fed agriculture, and traditional techniques. Mechanization and irrigation are rare, limiting productivity and market competitiveness.

Social, political, economical and environmental risks management
Climate risk, land degradation, and pest pressure make maize production volatile. Risks are known and partially manageable through CSA practices, especially with institutional support.

Potential for partnerships and decision-making for fair benefit distribution
Strong potential exists for producer cooperatives and public-private partnerships, particularly in Barué. However, benefit-sharing models need strengthening to ensure equity.

Sustainable supply of natural goods/services assessment
There is potential for sustainable maize cultivation using CSA, especially in areas with crop rotation and organic soil amendments. Long-term supply is viable but climate variability remains a risk.

ROI AND PROFIT/LOSS ANALYSIS



Break-even

Scenario 1	Scenario 2
YEAR 3	YEAR 2

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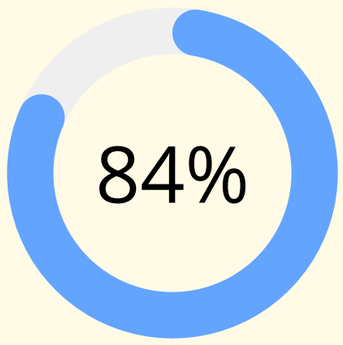
CULTURAL AND SOCIAL ALIGNMENT - COMMUNITY IMPACT

Women's inclusion and representation
Women play key roles but face land ownership barriers. Women's groups are actively involved in maize production but lack access to financial resources and market networks.



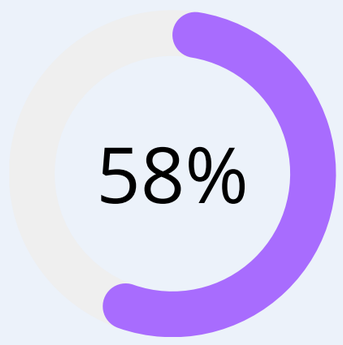
Prior community experience with value chain
Maize is well known and cultivated widely. Communities rely on maize for sustenance and economic stability.

Fair distribution of benefits
Market structures favor buyers over small farmers. Without cooperatives, smallholders lack bargaining power.

Socio-economic impacts and cultural relevance
Culturally significant and deeply embedded in diets. Maize remains the most commonly grown crop in rural communities.

CLIMATE AND NATURE - NATURE'S BALANCE

Climate resilience and water stress reduction methods
Some farmers adopt conservation techniques, but uptake is slow. Crop rotation, organic composting, and intercropping have improved yields, but reliance on chemical fertilizers persists.



Restoration activities in the region
Few restoration activities focus on maize farms. Intensive maize farming contributes to land degradation.

Integration of native species in restoration
Some native species are planted in agroforestry systems. However, most maize farms rely on chemical inputs, reducing long-term sustainability.

Efficient and resilient irrigation systems
Rain-fed maize is vulnerable to climate shocks. Few farmers have access to resilient irrigation systems.

Ecosystem service benefits vs. threats
Long-term viability is threatened by soil depletion. Climate risks and market dynamics must be addressed for sustainability.

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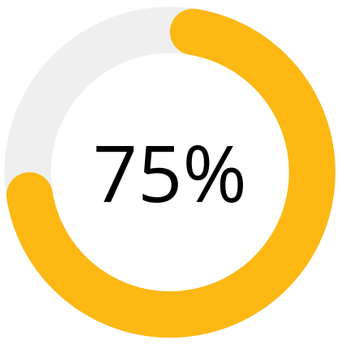
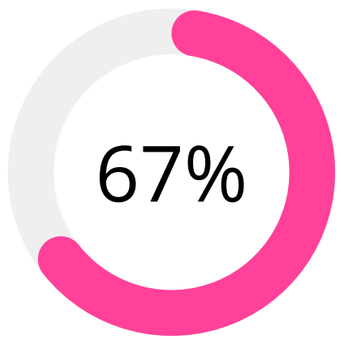
FINAL SCORING PER COMPONENT



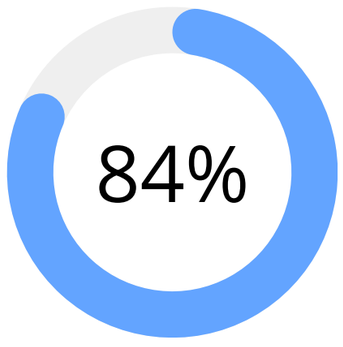
Catalysts for Success

Current conditions are well aligned with CERS criteria linked to Policy, Participation, Land Rights, and Institutional Capacity. There is still room for improvement.



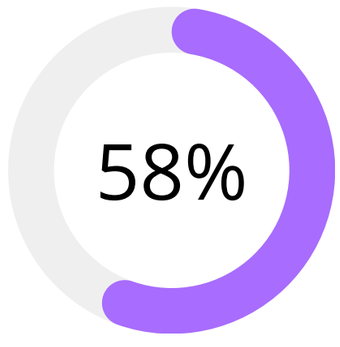
Thriving Enterprises

Current conditions are well aligned with CERS criteria linked to Assumptions, ROI, Scenarios, and Break-even. There is still room for improvement.



Community Impact

Current conditions are perfectly aligned with CERS criteria linked to Intrinsic values, Inclusion, and Benefit sharing.



Nature's Balance

Current conditions are moderately aligned with CERS criteria linked to Biodiversity, Carbon Emissions, Ecosystem, and Soil Health. Improvements are needed.

Recommendations for improvement on the next page

FINAL VIABILITY SCORING CONSIDERING NbS and CSA practices

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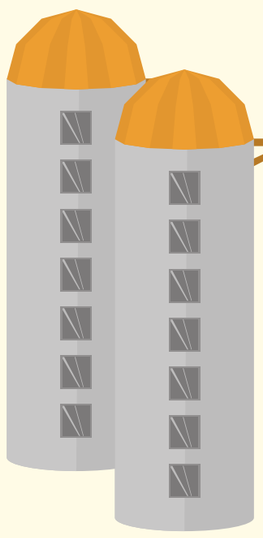
INVESTMENT RECOMMENDATIONS

- Promote **CSA techniques** such as intercropping, soil conservation, and use of drought-resistant seeds.
- Build **local capacity** in organic compost production using available biomass.
    - Introduce **agroforestry systems** to restore degraded maize lands and diversify farmer income.

- **Irrigation schedule** to optimize resource use (pilot project in Campo 4 - upstream Mountain)
- Pair **irrigation access** with **CSA training** to stabilize and improve maize yields.
    - Support **associations** like those in Piscina and Macossa (Samore Machel Coop) to manage community-level storage (e.g., silos, hermetic bags, drying units, irrigation systems).



    - Build **community-owned** storage units and drying platforms.
    - Improve grain quality preservation and reduce **post-harvest losses** (currently 35%).

- Enable cooperatives and informal groups to access **credit**, **public-private partnerships**, and **training funds**.
- Support **legal formation** and **capacity-building** of informal groups in 7 de Abril, and Nhamadembe.

    - Provide **business management training** for maize-producing associations in Chindengue.
    - Organize **training hubs** with Chindengue (Samora Machel Coop) and Piscina (Association), where there is interest and capacity for scaling up.

- Facilitate **linkages to buyers** (e.g., feed manufacturers like MOZAGRI, ECA, ETG, Abilio Antunes) and support **contract farming** models.
- Introduce **weather-based insurance pilots** and early warning systems for climate events.

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