III LUANDA FINANCING SUMMIT FOR AFRICA'S INFRASTRUCTURE DEVELOPMENT

Project Prospectus – Empowering Women and Youth-Led Drone Enterprises for Water-Efficient Agriculture and Livelihood Diversification

Project Summary	
Project Name	Empowering Women and Youth-Led Drone Enterprises for Water-Efficient Agriculture and Livelihood Diversification.
Location	Zimbabwe– Prioritizing drought-affected regions: Masvingo, Midlands, and Matabeleland South Provinces.
Sector	Water Supply and Sanitation
Sub-Sector	Water-Smart Agriculture, Climate-Resilient Livelihoods, Drone-Based Irrigation and Fertilization, Technology-Enabled, Women's Economic Empowerment.
Development Stage	Concept Note– Under Development.
Project Sponsor	To be determined
Project Cost	$56 million USD
Funding Requirement	$28 million investment ask.
Project Preparation total cost	To be determined
Project Preparation funding gap	To be determined
Financing Structure	To be determined
Development Timeline	Preparation: 2026; Feasibility and Proposal Development: 2026–2027; Implementation: 2028–2032 (5 yrs)
Project Description	To increase climate resilience and income diversification in drought-prone regions by enabling women-led technological enterprises, using aerial survey tools to promote water-efficient agricultural support services. Output 1: Establishment of women-led aerial survey service enterprises delivering precision irrigation, fertilization, crop treatment, crop monitoring and associated security services. Output 2: Improved water use efficiency, improved agricultural productivity and yields especially in support of smallholder farming communities. Output 3: Strengthened local institutional capacity and community-based skills development to integrate technological solutions in water resource management and food security. Output 4: Gender-enhanced economic empowerment promoting alternative income streams linked to state-of-the-art agricultural technology services. Output 5: Strengthened climate – especially drought - resilience through diversified livelihoods and improved agricultural productivity
Strategic Importance	• Zimbabwe National Development Strategy 1 (2021–2025) • Zimbabwe's NDC (2021) and Climate Policy • Zimbabwe Smart Agriculture Blueprint

	• National Drought Plan for Zimbabwe • Zimbabwe Water Policy
Market Demand	Local buy-in through community extension & training
Total Project Cost	$56 million USD
Capital Structure	To be determined
Financial Metrics	To be developed in full proposal phase.
Revenue Model	Public-private partnership frameworks for service provision; Microfinance-backed leasing models for drones and drone training to women and youth-led cooperatives. Drone service fees paid by farmers or agricultural cooperatives;
Social Impact	To be conducted as part of full proposal development, GEDSI strategy included.
Environmental Impact	Planned– From infrared image recording to expand to aerial fertilizer/pesticide/natural product distribution regulation, wildlife impact, and local airspace rules and regulations development/guidance: Q2 2026.
SDG and Agenda 2063 Alignment	SDGs: 1, 5, 6, 8, 9, 13 SADC: various alignments including Water-Energy-Food-Ecosystem (WEFE) Nexus, Gender equality & sustainable livelihoods
Technology & Design	• Remotely Piloted Aerial Systems (RPAS, also referred to commonly as "drones") technology for local scale aerial crop monitoring, precision watering, water resource optimization, and fertilizer application (whether organic or otherwise). 1.Aerial surveillance crop monitoring: Regular monitoring of crop health, growth, water needs and enabling early detection of issues such as pests, diseases, and nutrient deficiencies. 2.Precision watering: Thermal imaging survey capabilities would detect soil moisture levels, enabling precise irrigation scheduling and improving water use efficiency. 3. Precision fertilizer application: Farmers may be directed to specific locations in fields to attend to soil and crop needs – whether organic or not; and specialized drones to be equipped with precision sprayers, enabling targeted application of e.g. fertilizers and/or pesticides, improving efficiencies, and reducing waste and environmental impact. 4. Aerial surveillance security operations: Providing services for communities or commercial agricultural producers, monitoring crops and detecting security threats such as trespassing, theft, or vandalism. 5.Risk and impact assessments: aerial risk and impact assessment services, identifying hectarage applied for investment, insurance, loan or claim valuations, and to support processes that underpin recommendations for mitigation or adaptation. • Technology-enabled analytics for optimal irrigation schedules, fertilizer usage, product application, or crop assessment. 1. Operators would gain skills to apply available technologies to develop algorithms to analyze data, providing insights on optimal irrigation schedules, fertilizer application, and crop management. • Development of capacity in technical operations, ICT equipment, repairs, survey methods and processes, and information systems: prioritizing women and youth. • Water efficiency monitoring and decision-support systems for food

	security. 1. Decision-support systems will be developed to enable citizen-science at smallholder farming scale, as well as in support of larger commercial production, to make informed decisions on water usage, crop health and growth, and land management. • Policy and Regulatory support. 1. Improve and strengthen RPAS and ICT application regulations, and data processing methodology and in-field application in Zimbabwe, based on world best practice. Such an approach would enable confidence in the data collection and resultant outputs, for effective monitoring in support of finance and insurance/loss and damage estimations, budgeting and crop volume calculations.
Capacity/Size	To be determined
Construction/Preparation Timeline	To be determined
Offtake Agreements	To be determined
Risk Assessment	Market acceptance risk: Community sensitization and extension services integrated Institutional capacity: Investment in long-term training and capacity-building hubs for women and youth Financial: Establish phased investment and microfinance structures to reduce up-front capital risk
Regulatory Risks	Partnership with ZCAA for drone licensing and airspace management frameworks.
Environmental and Social Safeguards	Inclusive stakeholder consultations already initiated; GEDSI disaggregated recording; Safeguarding and grievance redress mechanisms drafted
Sponsors	MLAFWRD, Ministry of Women's Affairs, Community, Small and Medium Enterprises Development.
Investors	Green Climate Fund (targeted grant funding of $20 million), local banks and microfinance institutions for co-financing.
Contractors & Operators	To be determined
Legal and Financial Advisors	Zimbabwe Civil Aviation Authority (ZCAA), FAO Zimbabwe, UN Women Zimbabwe, SheFlies – Drone Community for young minds, APSAN-Vale (transboundary learnings from similar project applications in Mozambique), LIMCOM and Great Limpopo Transfrontier Conservation Area (GLTFCA)
Investment Ask	$28 million
Next Steps	**Next Steps:** Partnership formalisation: LIMCOM etc. Finalise Feasibility & Financial Models Consider scale-out: Survey of Nature-Based Solution implementations, Energy sector Align with Zimbabwe Water Investment Programme & SADC Water-Energy-Food-Ecosystem (WEFE) Nexus Initiatives
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