Request for proposals

Agriterra Rwanda is looking for a company to develop and deploy a custom-made gender-responsive digital climate advisory services (DCAS) platform for maize farmers in Rwanda.

Introduction

Agriterra is an international agri-agency founded and governed by farmers' organisations from the Netherlands, dedicated to strengthening farmers' organisations in developing countries. We integrate perspectives on farming systems development and market systems to foster cooperative growth as the engine of rural transformation. Our approach focuses on building strong farmers' organisations that serve as responsive centres for smallholder farmer households. Since establishing our field office in Kigali in 2016, Agriterra has actively contributed to transforming Rwanda's agricultural landscape. We have successfully implemented multiple programmes, including the Farmer Common Sense in Business Programme, Farmer Focused Transformation, and strategic partnerships through the Sustainable Development Goals Partnership Facility. Our work consistently aims to strengthen organised farmers' positions within agricultural value chains, with particular expertise in Rwanda's horticulture, maize, and potato sectors. Our cooperative development expertise has enabled us to work with approximately 50 maize cooperatives on various customised development pathways, ranging from hybrid maize multiplication, maize aggregation and drying to the development of farmer-led business cases around input supply and extension services. Through partnerships with organisations like Africa Improved Foods (AIF), Agriterra has successfully unlocked profitable nearby markets for over 30,000 smallholder farmer households in the maize value chain, while enhancing the climate resilience of the farmers involved and empowering female farmers and leaders.

Background of the assignment

Maize is one of Rwanda's main staple crops, vital for both household nutrition and market systems. However, its production is highly susceptible to climate variability and change. Smallholder maize farmers, many of whom are women organized in cooperatives, encounter major challenges such as unpredictable rainfall, prolonged dry spells, and extreme events like floods and droughts. These disruptions impact planting schedules, decrease yields, and threaten farmer incomes. Access to reliable and localized climate information remains limited. Many farmers depend on traditional knowledge or generic forecasts that do not offer practical, location-specific advice. Current advisory services are disjointed, not user-friendly, and often inaccessible to women, which further hinders the uptake of climate-smart practices. Without timely guidance on soil health, fertilizer use, pest and disease management, and water control, farmers remain at high risk of crop failure and income loss.

DCAS are digital tools and platforms that provide localized, data-driven climate and agricultural information to farmers and value chain actors. They combine climate data, satellite imagery, AI/ML analytics, and local agronomic knowledge to deliver insights via SMS, mobile apps, radio, or extension networks. The maize value chain encompasses various stages such as input supply, farm-level production, post-harvest handling, marketing, and trade.

Overall, all these stages are climate-sensitive and may be affected by rising temperatures, rainfall variability, pests, and diseases. DCAS has a chance to help smallholder farmers, including women farmers, navigate these challenges. For instance, while sourcing inputs, farmers may benefit from forecast-based input planning. Similarly, farmers may benefit from mobile weather advisories and pest alerts during planting. Post-harvest handling is another critical phase, and DCAS can help distribute humidity/temperature alerts for safe drying and storage, thereby contributing to logistics optimization.

In terms of market linkage, DCAS can also facilitate price forecasting linked to climate-induced supply shifts. To enable approximately 2,500 maize farmers organized into five cooperatives to adopt profitable and resilient agricultural methods, Agriterra is seeking an experienced technology firm to develop a gender-responsive digital climate advisory service tailored to the maize value chain. The successful bidder will design, customize, and deploy a gender-responsive digital climate advisory services platform specific to Rwanda's maize farmers and cooperatives. The platform will strengthen the climate resilience of smallholder maize farmer households, improve productivity, and support informed decision-making across the maize value chain. The solution will be piloted with 2,500 farmers through 5 cooperatives within Agriterra's maize cooperative network.

Objectives

- Develop a customized and scalable gender-responsive DCAS platform that integrates climate, weather, and agricultural data to produce actionable advisories for the target maize farmers.
- Enhance the adaptive capacity of smallholder farmers, including women, through timely, localized climate and agronomic information.
- Promote inclusion and fairness, ensuring access for women, young people, and marginalized communities through low-bandwidth channels (SMS, IVR, community radio).
- Train and onboard 2,500 farmers organized into 5 cooperatives to adopt and use the platform.

Scope of work

The assignment will be carried out in five phases: inception, system development, advisory delivery, pilot implementation, and capacity building. Work will commence immediately after contracting the vendor and is scheduled for completion by the end of January.

- **Inception phase**
  After contracting, the selected solution provider will submit an inception report outlining the system design. This report must also clarify plans to source and integrate various data, such as climate data, satellite images, relevant agricultural databases, and local agronomic knowledge. It will be accompanied by a comprehensive stakeholder mapping, focusing on those directly or indirectly influencing the growth of the maize value chain.

- **System development**
  Design and develop a DCAS platform customised for Rwanda's maize production zones and cooperative models. The platform must provide timely, localized, actionable climate and agronomic advice to enhance resilience and productivity for maize smallholder farmers and cooperatives. Before building the platform, the vendor will submit technical and functional requirements for review. These requirements should, based on the inception phase, detail the platform architecture, data integration plan, plans to utilize machine learning (e.g. models for seasonal forecasting, drought/flood prediction, and crop yield risk), and the underlying database design. Additionally, the requirements must clarify platform security and localization features, ensuring compliance with local data protection and privacy legislation. When applicable, include design mock-ups of user interfaces for both web and mobile platforms. Since the platform will be expanded in future to incorporate other services (e.g., access to finance, markets, logistics), the requirements should outline an integration or interoperability pathway where necessary. Crucially, the DCAS platform must feature a dashboard for specific stakeholders (e.g., Agriterra, AIF, Minagri) to monitor adoption, usage, and impact.

- **Advisory delivery**
  Agricultural and climate advisories delivery is integrated into the system design as a crucial component of the DCAS platform. The advisories must primarily be accessible in the national language, Kinyarwanda, and to some extent in English. The advisory delivery channels should include SMS/USSD, IVR, and WhatsApp. The vendor must specify the underlying advisory delivery orchestration to ensure messages are queued to the appropriate channels while respecting users' preferences. It is also recommended to explore the integration of an AI-enabled chatbot for farmers or cooperatives to engage on various topics and address individual needs, considering

factors such as current weather conditions, crop type, growth stage, and local farming practices. More specifically, allow farmers to access location-specific weather forecasts and maize-specific farming advice. Two-way communication via the chatbot should facilitate continuous refinement and enhancement of disseminated advisories.

- **Pilot implementation**
  The vendor will develop and pilot a DCAS platform for the specified maize farmers in Rwanda. Around 2,500 farmers, organized into five cooperatives, will be the platform's main users throughout the pilot phase. These farmers will be registered by Agriterra and its partner AIF. It is anticipated the pilot phase will run for 2 weeks, during which constant and rigorous monitoring of uptake, use and impact will be conducted by Agriterra and AIF. It will be critical for the vendor to submit a progress report to Agriterra with specific metrics on advisories delivery rates. During the pilot phase, users must have access to user support via calls or messages to overcome any uptake challenges. After the pilot phase, the vendor will produce a final evaluation report capturing the lessons learned and the scalability plan. The vendor will also develop a comprehensive 1-year maintenance and support plan.

- **Capacity building**
  The successful vendor will develop farmer-friendly training manuals and digital guides in Kinyarwanda and English. These materials, particularly the ones in Kinyarwanda, will be used to train and onboard 2,500 farmers through 5 maize cooperatives. The vendor will also conduct training-of-trainers for cooperative leaders and Agriterra field staff on the use of the DCAS platform.

Requirements of the proposals

Agriterra expects bidders to submit a Technical Proposal (**maximum 10 pages**, excluding annexes) and a Financial Proposal (**maximum 5 pages**, excluding annexes) that best reflects how they intend to execute the scope of work. Innovative approaches to deliver the work are most welcome. Financial proposals must include a detailed cost breakdown.

Qualifications and expertise required

The technology vendor should possess strong technical expertise, domain knowledge, and project management skills. The following qualifications and expertise are required:

Company Profile

- Minimum of 5 years of experience in developing large-scale Digital Climate Advisory Services
- Proven track record of successfully implementing similar projects in developing countries, preferably in Africa.
- Demonstrated ability to handle projects of similar scope and complexity

Technical Expertise

- Extensive experience in full-stack web application development
- Proficiency in modern programming languages and frameworks (e.g., Java, Python, .NET, React, Angular)
- Strong database design and management skills (e.g., SQL, NoSQL)
- Expertise in developing mobile applications for both Android and iOS platforms
- Experience in data migration and integration
- Knowledge of cloud technologies and scalable system architectures
- Familiarity with data analytics, business intelligence and reporting tools

Domain Knowledge

- Understanding of climate-smart agriculture
- Familiarity with agricultural development, weather data, farming advisories and other relevant agricultural data

- Understanding of agricultural data management and interoperability

Project Management
- Proven experience in managing digital development projects from conception to completion
- Proficiency in project management methodologies (e.g., Agile, Scrum, Prince2)
- Strong stakeholder management and communication skills
- Experience in change management and capacity building

Key Personnel
The core team should include, at a minimum:
- Team Lead/Project Manager
    - Minimum ten years of experience in climate-smart agriculture
    - Familiarity with integrating digital into agricultural development, also known as digital agriculture
    - Experience leading similar-scale projects in developing countries

- Systems Architect
    - Minimum eight years of experience in designing large-scale information systems
    - Strong background in database design, system integration, and security architecture
    - Experience with social protection or similar government information systems

- Senior Software Developer(s)
    - Minimum five years of experience in full-stack development
    - Expertise in relevant programming languages and frameworks
    - Experience in developing user-friendly interfaces for diverse user groups

- Software Quality Assurance Specialist
    - Minimum five years of experience in software testing and quality assurance
    - Familiarity with automated testing tools and methodologies

Bidding vendors should provide detailed CVs of key personnel, highlighting their relevant experience and qualifications. They should also demonstrate their capacity to mobilize additional resources throughout the project lifecycle if required.

General evaluation criteria
The tendering method to be used for this tender is the QUALITY COST METHOD. Therefore, the technical proposal shall be marked out of 70%, while the financial proposal shall be marked out of 30%.

The Financial Proposal should include a breakdown of costs by service to be delivered. The opening of financial proposals shall be held through an online meeting, attended by the bidders who have scored the required marks in their technical proposals.

The presented cost of service delivery shall be tax inclusive. The currency to be used for bidding is the RWF. The financial proposal should not exceed 120,000,000 RWF.

Technical Proposal Evaluation (70% of total score)

Criteria	Points	Details
Understanding of the Project	15	- Demonstrated understanding of objectives and context - Clarity and relevance of proposed approach

		- Identification of potential challenges and mitigation strategies
Technical Expertise and Experience	20	- Relevant experience in developing similar digital platforms - Expertise in data integration and interoperability - Experience in similar contexts
Proposed Methodology and Work Plan	20	- Clarity and feasibility of methodology - Comprehensiveness of work plan - Innovative approaches - Strategies for scalability and sustainability
Team Composition and Qualifications	15	- Qualifications of key team members - Balanced team composition
Quality Assurance and Risk Management	10	- Robustness of quality assurance mechanisms - Risk identification and mitigation strategies - Data security and privacy protection approach
Capacity Building and Knowledge Transfer	10	- Strength of capacity building approach - Knowledge transfer strategies - Plans for user manuals and documentation
Sustainability and Handover Plan	10	- Viability of sustainability measures - Clarity of handover plan - Long-term maintenance strategies

Financial Proposal Evaluation (30% of total score)

Criteria	Points	Details
Cost Effectiveness	20	- Overall cost relative to scope - Clarity of budget breakdown - Value for money
Financial Capacity and Stability	10	- Evidence of financial stability - Transparency in financial reporting

Administrative requirements of eligibility

- Must be a reputable firm with significant expertise in Digital climate advisory services. The tender is for companies ONLY.
- Both national and regional companies are eligible to apply.
- Certificate of incorporation/Trading License.
- Short introduction of the Company/Company profile including the full physical address and contacts, location, and overview of past and current similar projects (i.e. DCAS platforms development), preferably in projects involving small holder farmers.
- Demonstrated capacity to customise digital solutions for low-resource and rural settings.
- Copy of Valid RSSB and RRA clearance certificates for companies registered in Rwanda/ copy of pension and tax clearance certificates for foreign companies.
- Proof of completion of at least two similar assignments, proof of having developed similar platforms in the past.

Negotiation stage

Agriterra shall conduct negotiations with the top-ranked firm after evaluating both technical and financial proposals. If no consensus is reached, Agriterra reserves the right to negotiate with other contenders in order of their ranking, provided their scores meet the average of 70%, based on the combined scores of technical and financial proposals.

The language of the bid and contract

Bidders may submit their bids in English. Bidders must not submit bids in more than one language. The Contract signed with the successful Bidder shall be in English, which shall govern the contractual relations between the Procuring Entity and the successful Bidder.

Proposal Due Date and Submission Procedures

The technical and financial proposals in PDF format are to be submitted separately through the Agriterra Rwanda email address. Each email shall mention whether it is a technical or financial proposal in the subject line, using the email address of the bidding company. Bids shall be sent via the email of Agriterra Rwanda: rwanda@agriterra.org by Tuesday, 11 November 2025 at 5:00 PM.