



INCREASING RESILIENCE AND FOOD SECURITY OF 20,000 SMALLHOLDER FARMERS AND WOMEN THROUGH WEATHER PRODUCTS THAT EMPOWER THEM IN FACE OF CLIMATE CHANGE

Concept note for interventions that have the potential to be scaled to millions of farmers across Africa



FORECA



Executive Summary

Background: The World Bank anticipates that 40% of land that is currently growing maize in Africa will be barren by 2030 due to climate change. This is just one example of how climate change is expected to disproportionately affect smallholder farmers, especially women and girls, who receive less in terms of nutrients and medical care in times of economic challenge. Traditional weather knowledge, passed on from generation to generation, has been rendered unusable by changes in weather patterns.

The Problem: Poor weather data and a lack of forecasting compound the problem. Africa has the worst weather tracking infrastructure network in the world: Nigeria needs over 300 weather stations, but at present only 3-5 weather stations meet international standards. As a result, accurate localized weather forecasts are not available. Other weather products that could increase the resilience of farmers to climate change, such as weather-smart agronomic advice and weather index-based crop insurance, are unavailable.

Solution: Through a grant from the European Union, Kukua has developed a low-cost, internet-connected and solar-powered weather station that provides real-time weather data. Kukua is currently rolling out 70 weather stations in Nigeria with the International Institute of Tropical Agriculture (IITA). In partnership with Foreca, a leading forecasting company, we are able to make localized weather forecasts that can empower smallholder farmers. We are partnering with AgriSeedCo, a leading African seed company, to reach over 3,000 smallholder farmers with weather-based interventions for piloting.

Objective of this Proposal:

1. To increase the number of new weather stations in Northern Nigeria by 30
2. To gain insights into which data derived products will have the most impact on stakeholders, specifically smallholder farmers and women, using a user-centered design approach
3. To create prototypes of these products
4. To test the products and pilot their feasibility and effectiveness in the field, including amongst smallholder female farmers in Northern Nigeria

Impact: At the end of this project, 20,000 smallholder farmers, of which 60% will be women, will have received and tested weather-based interventions to increase their resilience to climate change and will have enhanced their livelihoods and food security. This could include localized weather forecast SMSs to help make planting decisions, agrometeorological crop-based advice that will increase yields, weather index-based crop insurance to protect against extreme weather events, and other products. The livelihoods and food security of our stakeholders will have been dramatically improved.

Scalability: The dire effects of climate change, and the concurrent lack of accurate weather data, is a major problem across Africa. We aim to make our solutions scalable to millions of farmers across Nigeria and the whole continent. We are already in touch with partners who will enable us to scale these interventions rapidly across multiple countries, including telecom companies, pan-African NGOs such as IITA, and companies like AgriSeedCo.

Budget required for 12-month project: \$241,000

For more information and the full proposal, contact Tom Vanneste: tom@kukua.cc

