

CASE STUDY – FOOD SECURITY

MOZAMBIQUE

CONTEXT



Livelihoods in Mozambique largely depend on smallholder farming.



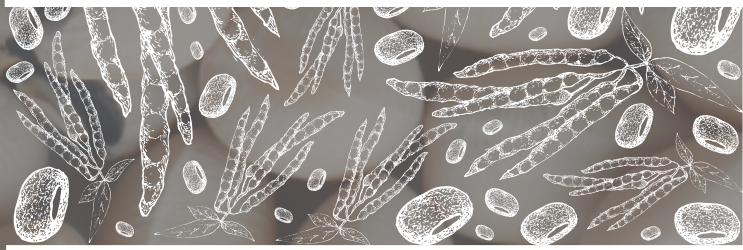
The farming system has poor resilience when experiencing climatic stresses such as lack of water availability.



The challenges farmers currently face include poor adaptation of crop varieties, poor use of inputs such as fertilizer and irrigation, and highly diversified farming conditions.



Farmers base their decisions in relation to climate resilience on traditional knowledge and do not necessarily take any “external information” into account.



EXPECTED RESULTS

- 1 Evaluation of farmers’ traditional knowledge in relation to climate-smart agriculture and adaptation.
- 2 Mapping of climate-related needs of farms in Nampula, a province in the north.
- 3 DNA sequencing of about 500 traditional varieties, with about 100K molecular data points each.
- 4 Characterisation of adaptation of specific genotypes and set up of breeding efforts valorising their diversity.
- 5 New, improved and actionable seasonal information tailored to farmer needs.
- 6 A tool to deliver seasonal and sub-seasonal forecasts to smallholder farmers.

THE TEAM



RESEARCH	SERVICE PROVIDER	END USER



FOCUS-AFRICA

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TOOLS & APPROACH



Surveys in small holder villages and participatory variety selection.



Next generation sequencing and landscape genomics of plant genetic resources.



Development of seasonal prediction tools.



Provision of seasonal information to farming communities.

CLIMATE SERVICES



BASELINE

No use of climate information in agriculture, poor characterization of local germplasm resources, poor understanding of smallholder farmers’ choice processes.



SHORT-TERM

A new decision-making pipeline for local farmers based on quantitative evaluations of crops varieties in relation to climate.



MID-TERM

A new set of breeding tools to develop adapted varieties supporting local agriculture.



LONG-TERM

A framework to adapt smallholder agriculture to climate change.