

Promoting stress-tolerant varieties at scale: Interlinking the private seed sector and insurance-advisory services in Kenya

Consortium Members

Berber Kramer – IFPRI

Francesco Cecchi – Wageningen University

Robert Lensink - University of Groningen

Rahab Karanja, Joseph Chege & Amos

Tabalia – Agriculture and Climate Risk Enterprise Limited (ACRE Africa)

Benjamin Kivuva – Kenya Agricultural & Livestock Research Organization (KALRO)

Impact activities

We will rigorously evaluate the impact of interlinking stress-tolerant seeds with different risk management solutions (insurance and advisory services). We will analyse if impacts differ depending on the type of seed provider: an incumbent seed company, a smaller private seed company, and a national agricultural research centre, with potentially more inclusive distribution channels to reach women and the youth. We will use a mixed qualitative-quantitative methodology. The project will build on findings from past seed systems interventions in Kenya, including the DTMA project and ACRE's Replanting Guarantee scheme. To facilitate a nationwide scale-up of key findings, and lessons learnt with the different seed providers, the project will leverage existing initiatives including KALRO's Digital Hub for Agriculture.

Synergies with other initiatives

- Initiatives that develop and release seed varieties that are more tolerant to natural disasters, for instance CIMMYT's Drought Tolerant Maize for Africa (DTMA) project, offer promising pathways to improve farmers' adaptive capacity.
- The KEPHIS seed certification initiative is another important program that the project will collaborate with to enable uptake of certified stress tolerant varieties and track the uptake through all stages of production. This is important because counterfeit stress-tolerant seed varieties have flooded the market, which has harmed farmer's trust in the quality of stress-tolerant seeds.
- The Kenya Agricultural Insurance Project (KAIP) is a project by the national government that aims to provide smallholder farmers with affordable agricultural insurance products. This scheme is one of the key schemes that the project will harness to promote uptake of stress tolerant seed varieties.

Project description

Background - Smallholder farmers often suffer losses from extreme weather events, pests and disease. Seed companies develop seed varieties that are more tolerant to natural disasters to improve farmers' adaptive capacity. However, despite potentially superior yields, adoption rates of drought-tolerant varieties are still very low in Kenya.

Hypothesis - Bundling seeds with insurance and advisory services helps improve effectiveness and trust in seed quality, while also minimizing the risks around adopting such seed varieties, thereby unlocking further agricultural investments.

Aim - This project aims to investigate how different types of market actors in high-quality seed systems can promote their clients' adaptive capacity by interlinking stress-tolerant varieties with innovative picture-based insurance and advisory services, using smartphone technology to provide comprehensive yet affordable risk management solutions.

Impacts - 1) Increased adoption of superior seed varieties bundled with comprehensive risk management products. 2) Increased agricultural productivity and resilience, reducing poverty and improving food security. 3) Improved engagement of youth and female farmers in agriculture, increasing gender equity and youth engagement in agriculture and mobile-based financial services.



Government of the Netherlands

