



TANZANIA/SWITZERLAND

INNOVATIONS IN AGROECOLOGY

MACHO SAUTI: AN ICT4 AGROECOLOGY PLATFORM FOR FARMERS

The project *Macho Sauti* (*Eyes and voice* in Kiswahili) is an innovative collaboration between scientific research institutions and civil society in the development context. By merging agroecological methodologies that promote forms of reciprocal exchange of knowledge with the interactive potential of ICTs, *Macho Sauti* fosters rich communication between small-scale farmers engaged in agroecological practices and scientific researchers.

DESCRIPTION OF THE INNOVATION

Macho Sauti originated from the pilot project *Sauti ya wakulima* (The voice of the farmers), started in 2011 by researchers from ETH (Zurich, Switzerland) in which a group of small-scale farmers in Bagamoyo, Tanzania, shared smartphones to document and post their agricultural practices using pictures and voice recordings, thus creating a shared online repository. *Sauti ya wakulima* was retooled by the farmers, subsequently evolving into a network for the mutual exchange of knowledge.

Based on the lessons learned from *Sauti ya wakulima*, *Macho Sauti* is currently scaling out the ICT tools and sociotechnical methodologies to reach a larger network of farmers in different regions of the country, who are currently taking up agroecological techniques under the supervision of SWISSAID Tanzania and Sustainable Agriculture Tanzania (SAT).



DESIGN AND SHARING OF THE INNOVATION

The ICT platform used in *Macho Sauti* consists of open source mobile and web applications, designed for the collaborative creation of multimedia documents. Its implementation and optimization is coordinated by SWISSAID Tanzania, by reaching out and training farmers from partner associations. The implementation methodology includes human moderation of contents posted by farmers, as well as face-to-face interaction through regular meetings. *Macho Sauti* is becoming an established channel of communication between farmers and scientists at local and international institutions.

BENEFIT FOR FAMILY FARMERS AND FOOD AND NUTRITION SECURITY

The reciprocal exchange of knowledge between small-scale farmers, and between farmers and researchers, can encourage the uptake of novel agroecological practices and foster farmer-driven innovation. *Macho Sauti* allows farmer-to-farmer and farmer-to-researcher communication to call for assistance and solutions for agricultural problems in the field. Such communication becomes critical to ensure food security in the face of multifaceted challenges, such as climate change or unstable markets.

SOCIAL, ENVIRONMENTAL AND ECONOMIC IMPACTS

The expected impacts of *Macho Sauti* are many: (1) empowerment of farmers through the ownership of an ICT platform; (2) improved interaction between farmers, researchers and expert practitioners; (3) effective uptake of proven agroecological practices that can increase the income of farmer households; and (4) a better understanding of local environmental conditions through farmer-led documentation.



LESSONS LEARNED AND RECOMMENDATIONS

While still in the early implementation phase, it is recommended that tools and methodologies in ICT4Agroecology must be designed and improved in close collaboration with farmers; and online platforms should be integrated and complemented with face-to-face interaction between stakeholders.