KULIMA participants conducting hot water treatment as a way to control the banana weevil without using pesticides. © FAO Malawi

CASE STUDY

Malawi

NEW FARMING PRACTICES ADDRESS ENVIRONMENTAL AND CLIMATE CHALLENGES

The KULIMA programme contributes to increased agricultural productivity and diversification in the context of climate change, through the promotion of effective agro-ecological practices.

CONTEXT

Malawi is one of the world's least developed countries — ranked 170th out of 188 countries in the 2016 Human Development Report — and the 8th most densely populated in Africa. Its 17.2 million inhabitants are largely dependent on subsistence agriculture. Smallholder farmers produce 75 % of the food consumed nationally. However, most of them have less than a hectare to grow food, which, in combination with declining soil fertility, extreme weather patterns, and poor access to credit and extension services, severely limits their production.

OBJECTIVES

To overcome these challenges, the European Union launched the KULIMA programme (for the period 2017-2023) to promote sustainable agricultural growth in all districts of Malawi, in the context of a changing climate. In doing so, the programme contributes to Malawi's goal to double the annual growth rate of its agriculture, from 1.6 % to 3 % by 2023, and to its progress towards the Sustainable Development Goals.

Specifically, the programme will:

1. increase agricultural productivity and diversify production, under a participatory, interdisciplinary, sustainable and climate change resilient approach;
2. develop agricultural value chains, helping to boost employment opportunities and incomes by facilitating access to credit for small and medium enterprises and smallholder cooperatives;
3. strengthen agriculture sector governance.

IMPACT

The programme is training 400 000 Malawian farmers to adopt climate-smart agriculture practices over an area of 600 000 hectares. Through Farmer Field Schools* (FFS), smallholders are carrying out participatory research activities and learning how to diversify their production by increasing agrobiodiversity.

For example, banana farmers in Mzuzu are assessing the performance of 11 different varieties of

PROJECT NAME
KULIMA – Promoting farming in Malawi

PERIOD
2017 - 2023

TOTAL COST
€ 111 000 000

EU CONTRIBUTION
€ 750 000

BENEFITING ZONE
Malawi

PARTNERS

- European Union
- Food and Agriculture Organization of the United Nations (FAO)
- Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)
- Government of Malawi
- Ministry of Agriculture, Irrigation and Water Development of Malawi
- National Authorizing Office Support Unit, Ministry of Finance, Economic Planning and Development of Malawi
- Self Help Africa

FACTS AND FIGURES

During the first training season for the rain-fed cropping season 2017-2018, the programme trained 90 extension workers (70 % men and 30 % women) and 450 farmers (38 % men and 62 % women).

EXPECTED OUTPUTS BY THE END OF THE PROGRAMME

- 400 000 smallholders adopting agroecological practices
- 600 000 ha of total area under sustainable environmentally friendly farming practices
- 4.6 % increase in annual agricultural growth
- 4 % increase in food-secure rural households

bananas in combination with different low-input good agricultural practices (GAP) in pilot orchards. At the end of the process, farmers are able to select the best fruit/vegetable varieties and agricultural techniques in accordance with their needs and specific agro-ecological conditions. This also contributes to maintaining the genetic biodiversity of the region.

Combating land degradation is a key element in KULIMA's approach. Improvement of the physical and chemical soil fertility is achieved by the use of compost produced at the farm level, and the application of intercropping and combining, for example, maize with pigeon peas or beans. Farmers attending the Field Schools have been testing these techniques in their own individual plots and are now scaling up the project by passing on their techniques to neighbouring farms.

The programme reduces risks and use of pesticides through the application of Integrated Pest Management (IPM) practices and Integrated Crop and Environmental Management (ICEM) strategies and practices. The promotion of intercropping and application of organic fertilisation has multiple benefits. Besides assuring the plants nutrition, and improved soil texture and structure, this process also facilitates the fixation — in the soil — of the different nutrients, diminishes the leaching of plant nutrients from the soil and increases soil water retention. This further reduces soil and environmental contamination, especially when compared to instances where chemical fertilisers are used.

For example, the improvement of organic matter and entomofauna is contributing to the control of the Fall Army worm (a moth of the genus *Spodoptera*), which recently has been affecting the maize crop in Malawi and neighbouring countries. It has been observed that where maize has been intercropped with legumes, such as pigeon pea, insect populations in the maize fields have increased and contributed to reducing the population of Fall Army worms.

In the coming phases, the KULIMA programme will provide loans and business advice to value chain actors to expand their operations. Access to loans will enhance farmers' climate resilience, as they can, for example, invest in diversifying their production and infrastructure to improve irrigation and soil fertility.

KULIMA also foresees the diversification of cash crops and the design and implementation of inclusive value-chain development plans for key agricultural crops and other commodities with market access opportunities for smallholders and commercial farmers. These plans will focus on increasing the added value of crops by enhancing production, storage, processing, commercialisation and connectivity (e.g. improved roads, mobiles for the transmission of weather alerts, use of renewable energies to increase economic competitiveness).

KULIMA is aligned with Malawi's national agricultural policy adopted in 2016, and will strengthen agriculture sector governance by raising awareness of agricultural, environmental and climate change issues in the sector; stimulating the participation and voice of the rural population through community radios, and strengthening Parliament's capacity to appraise agricultural budgets, track expenditures and assess agriculture, food security and nutrition related policies.

TESTIMONIES: SUSTAINABLE AGRICULTURAL PRACTICES INCREASING FARMERS' INCOME

"KULIMA is tackling agricultural, environmental and climate change issues from the production side and seeking the high participation of smallholder farmers, because we know that we really need to implement agricultural good practices to protect resources, so as to increase productivity in a diversified and sustainable way." Jean-Pierre Busogoro, KULIMA programme manager.

"We have come to discover that before the FFS training, we weren't aware about a lot of good practices that you can use for sustainable production. For example, the hot water treatment of banana suckers is an efficient practice which helps control the banana weevil without relying on pesticides."
Zondiwe Jere, KULIMA extension worker.

"Following production of horticultural crops on our terraces, we have seen a lot of buyers coming to collect the produce from our site. This is interesting for us as we don't have to pay the transport cost from our production site to the market. We want to continue producing new crops on the terraces and to improve them, so that we can improve our production and revenues."
Mary Msukwa, KULIMA farmer working on the established terraces.

*A participatory approach of "learning by doing", which helps extension workers and farmers to test new techniques and develop skills for problem analysis and effective decision-making, based on the understanding of their local agro-ecosystems and crop agroecology.

Greening EU COOPERATION
Integrating environment & climate change

Environment and climate change mainstreaming is a legal EU requirement, reaffirmed in the New European Consensus on Development, and essential to meeting international and internal commitments.

For advice and training on environment and climate change mainstreaming, contact:

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