

Green Innovation Centres for the Agriculture and Food Sector (GIC) in Zambia

Part of the special initiative “ONE WORLD – No Hunger” and part of the Agriculture and Food Security Cluster Zambia

The challenge

The Zambian agricultural sector is dominated by small-scale farming enterprises, which cultivate the country's staple food maize on usually less than 5 hectares of land. The one-sided agricultural orientation leads to depleted soils and thereby reduced soil productivity.

Further, a set of complex challenges hinders the successful uptake of agricultural value chain development: unsustainable agricultural practices after decades of one-sided field management, substantial post-harvest losses as a result of inappropriate storage facilities, sparse processing opportunities due to high costs of equipment and inadequate transportation options, lack of timely market and price information, missing trading relationships, limited access to agricultural inputs and below-average rainfalls as a consequence of changing climate patterns.

Our approach

The GIC project aims at promoting innovations in the agriculture and food industry sector that contribute to a sustainable rural development by supporting the development of the soya bean and groundnut in the Eastern, and dairy value chains in the Southern Province of Zambia.



Soya beans and groundnuts are ideally suited for cultivation in rotation with maize and furthermore help to improve soil quality. Milk production, on the other hand, provides farmers with a continuous, non-seasonal source of income. The high protein content of both legumes and milk is also beneficial, especially in combatting malnutrition.

Project name	Green Innovation Centres for the Agriculture and Food Sector (GIC) Zambia
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	7 districts in Southern Province, Zambia 12 districts in Eastern Province, Zambia
Lead executing agency	Zambian Ministry of Agriculture (MoA) Zambian Ministry of Fisheries and Livestock (MFL)
Duration	11.2014 – 03.2024

The GIC project continuously works with public and private partners to identify new innovations that work in the specific local context, to disseminate the knowledge of how to apply those innovations through regular trainings, and to sustainably anchor the innovations in the partner structures for a successful and sustainable uptake:

Research: Results from collaborations with international and local research institutions feed into the identification and validation of innovations.

Trainings: Small-scale farmers and entrepreneurs are trained on these innovations through Farmer Field Schools, agricultural advisory services and other trainings to ultimately help in boosting their productivity and thus income.

Policies: Our main political partners MoA and MFL set the framework of the Zambian agricultural sector.



Left: Farmer noting down facts and figures he routinely collects on his dairy herd. Checking temperatures of cows for instance is a daily requirement to check for potential diseases. Record-keeping is one of the innovations promoted by the GIC project.

Right: Members of a cooperative assessing the quality of grain brought into from farmers and stored in the cooperative storage. Through the cooperative, its members are able to access bigger and more profitable markets to sell their produce.

Our innovations

The GIC project promotes a holistic set of innovations. The aim is to contribute to sustainable rural development by empowering small-scale farmers and cooperatives with skills and capacities to improve their productivity, income and employment situation. The knowledge and skills are disseminated through community-based trainings and the use of agricultural advisory services.

We understand an innovation as a transfer of solutions from similar problems to new contexts. Innovations promoted by the GIC project in Zambia can be ideas transferred from a country or value chain.

In Zambia, innovations promoted can be centered around the following categories:

- Training small-scale farmers on good agricultural and dairy practices that help increase productivity
- Ensuring access to high-quality inputs such as drought-resistant seeds for fodder and legumes
- Fostering the establishment of farmer producer organisations to access bigger markets
- Supporting the processing of raw produce into products sold to rural and urban markets

An example from the field

Mr. Mijele Sakala lives in Songwe Village which is located in the Mbang'ombe Chiefdom in the Eastern Province of Zambia. Upon stopping school in grade eight, Mr. Sakala started farming to take care of himself and later his entire family.

Having realised his limited opportunities to raise enough income for his family through conventional farming, Mr. Sakala pledged to adopt conservation farming principles under COMACO in 2012.



Mr. Sakala showing Agroforestry in his field

This type of farming, in comparison to conventional farming, promotes minimum soil disturbance and diversification of plant species. This is supposed to restore the soil. Intercropping his fields with a specific type of a tree, he is further able to use the leaves from the trees to make his own natural fertilizer directly in the fields.

Community Markets for Conservation (COMACO) is a Zambian non-profit organisation with a strong track record in advising smallholders on ways of boosting their productivity. The marketing and sale of the smallholders' products is supported through the country-wide brand *It's Wild*.

Mr. Sakala indicated that farming according to conservation principles helped him increase his crop yield. He further boasted of having a very healthy family as due to crop diversification promoted by GIC, he can now prepare nutritious meals from legumes such as groundnuts and soya beans.

With his higher yields, and having access to bigger markets, Mr. Sakala is now able to raise enough income each year to continuously invest into his farming business and to support his seven children to go to school. He is now planning to build a bigger iron-roofed house compared to the one he is currently occupying.

Success factors

Since the beginning of the project activities, the following milestones have been achieved:

- 140,000 small-scale farmers trained in sustainable farming methods in soya, groundnuts and dairy
- Newly taught climate-smart practices are already applied by 72% of trained smallholder farmers
- Soya bean productivity increased by 21%, income derived from the groundnut value chain raised by 20%
- More than 300 jobs created along the three selected value chains
- 1,200,000 persons reached through interactive radio formats on the innovations promoted

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