

## EASING UP ARIDITY TO INVITE PROSPERITY



*Margaret Miano, MESPT Value Chain Officer for Lower Eastern Region during a farm Visit in Mumbuni*

In the semi-arid area of Mumbuni in Makueni County, smallholder farmers are embracing green technologies which are climate-smart solutions to produce food and cash crops. The farmers have relied on rain-fed agriculture for years but their adoption of green solutions, such as water pans and water weirs, enables them to practise farming all year-round. As a result, irrigation farming has become lucrative, generating reliable incomes for families besides creating job opportunities for communities.

Water is not the only problem for the farmers in this area. Over the years, members of Kanoto Horticultural Co-operative Society have had bad memories of sweating and earning peanuts as brokers and unscrupulous vegetable exporters exploited them. The farmers have been growing French beans for decades.

Marketing their produce was a challenge due to lack of a reliable market, intermittent prices and the low volumes of their produce. As a result, they sold their produce at the local market through brokers who would then sell to exporters in Nairobi for export to European or Asian markets.

Most of their produce would go to waste due to drought, diseases and pests translating to almost 40% losses. An additional loss came from rejection of beans that did not meet the export quality.

The situation changed when the society struck a partnership with Micro Enterprises Support Programme Trust (MESPT) in 2011. Through MESPT's intervention, farmers were trained in various good agronomic practices and introduced to water-harvesting technologies that significantly contributed to reliable production and better yields. To begin with, MESPT rehabilitated two water weirs in Kyanzuki and Mumbuni areas.



The Mumbuni water weir provides water to 78 households, eight belonging to members of the Kanoto Cooperative Society. The Kyanzuki weir on the other hand serves 40 non-member households and 18 Kanoto members.

The communities are now able to adequately irrigate their farms all-year-round. Initially, the weirs could only hold water for two months after the rains before drying up. This has since changed after the rehabilitation with weirs now storing water throughout the year. Since some of the individual farms are off the direction of the weirs, MESPT supported the construction and lining up of 29 individual water pans that belong to Kanoto members.

With increased production, especially of French beans, MESPT linked the cooperative to Vert Limited, a local small and medium enterprise (SME) exporting French beans, fruits and herbs to European and Asian markets. Kanoto is now under contract farming with Vert Limited since 2018 which has provided them with a reliable market and income.

The society, which has grown from 30 to 95 members, produces export vegetables with an average annual production of 43.2 metric tons valued at Sh2,589,180. The group's members were linked to Universal Traders Sacco where every member has an account that they are paid through.



Other areas of MESPT support include construction of an aggregation centre which sits on land owned by the group. It is a global GAP certified structure which is used as a grading shed. The farmers are also global GAP-and-Fairtrade-certified for production of quality French beans. Additionally, Vert Limited has assigned a technical assistant to the group to ensure compliance with market standards and requirements. The Fairtrade certification has enabled the group to enjoy premiums which they use to support market standards renewal among other developments.



Mr. Edwin Wanyama is Vert Limited's Technical Assistant, co-paid by VERT and MESPT and assigned to Kanoto Horticultural Co-operative Society. He had some invaluable advice for the farmers when we interviewed him at the grading centre. "There is potential for farmers to reap maximum benefits if they adhere to good agronomical practices. Currently, some farmers delay spraying pesticides which has led to increased pest population. As a result, the pests suck the pods, deform the beans, and defoliate the flowers. This destroys the crop and affects the weight and quality of the beans," says Wanyama.

Mr. Joel Mugiira, the Chief Agronomist at Vert Limited, is upbeat that farmers will reap more with the expansion of the export market. Currently, farmers have the capacity to produce more French beans, but they are inhibited by the quota set by Vert Limited. "We export French beans to France, Germany and the Netherlands. However, the market is set to expand which may lead us to request farmers to produce more," he says.

MESPT's support in Makueni is part of the implementation of the Value Chain Greening and Financing Programme component (VCGFP) within the Green Growth and Employment Programme supported by the Royal Danish Embassy. The programme has a national outlook but mainly targets Embu, Kajiado, Kilifi, Kwale, Makueni, Nakuru and Taita Taveta counties.

Kanoto's secretary, Mr. Geoffrey Kathuku, whose 0.2 acres is under French beans, is grateful for MESPT intervention. He and group members can now reap the benefits of their sweat. His French bean crop can net for him KES 38,400 per month. Vert Limited buys the crop at KES 60 per kilo.

Kanoto's chairperson, Mr. Muendo Muli, says the availability of water through the support of MESPT has enabled many farmers to venture into vegetable farming for export. Besides earning from farming, Muli has been trained by MESPT in excavating and lining water pans. He makes an income out of these activities.

He boasts other benefits too: "I have been trained by MESPT on the dangers of harmful pesticides, farming for export, nutrition and financial management. I am a good financial planner because of MESPT," he says. Muli attributes some of his family's key achievements to the MESPT intervention. These include buying land and building a permanent family house.

Kathuku has equally benefited from growing French beans. "Through French beans farming, I have renovated my house, bought water pipes to expand irrigation, purchased a motorised pump for spraying pesticides and built a house for poultry. Most importantly, I have improved my farming because of MESPT training in good agronomical practices, financial management and record keeping."



**Kathuku and his wife harvesting French beans on their farm.**





**Kathuku's water pan if full to the brim.**

With water in abundance, new horizons are opening up. Some farmers are already venturing into aquaculture. The water pans are being used to keep fish while others are starting fishponds. One such farmer is Mr. Benson Kamithi. "We thank MESPT for training and supporting farmers in water harvesting techniques such as the weirs and the water pans. They help us recharge our ponds and tanks. Availability of water has enabled us to sustain French bean farming as well as venture into aquaculture," he says. Kamithi has already harvested fish having initially introduced 20,000 fingerlings, both tilapia and catfish.

Muli and Kathuku's testimonies show how far the members of Kanoto Horticultural Co-operative Society have gone in their tortuous journey of wrestling both the vagaries of climate change and poverty. The Kanoto-MESPT partnership is therefore a boon to the health of Mumbuni's environment as well as its economy.

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