



Reducing Poverty with Proactive Agricultural Technologies

– Feasibility Survey on Cultivating Safe and Secure Tomatoes



Tomatoes grown through test cultivation with local farmers. (Photo: IMG)

Kenya's agricultural sector is a core industry of the country's economy and accounts for about 30% of its GDP. Kenya's national goal is "to realize an innovative, commercially-oriented, competitive and modern agriculture sector." However, some 70% of agricultural production in Kenya is conducted by small-scale farms and most of these farmers are still poverty-stricken.

Japan has provided technical cooperation to Kenya's Ministry of Agriculture, Livestock and Fisheries and other organizations for strengthening the organization of small-scale horticulture farmers and increasing their incomes. The aim of these efforts is to shift from a mindset of "sell once a crop is harvested" to "grow crops in order to sell them." To achieve this, however, each individual farmer needs to take the initiative towards enhancing the value-added nature of their products and developing sales channels, all the while carrying out thorough quality control.

Agricultural producers' cooperative corporation Wagoen and Wago Co., Ltd. (hereinafter "Wago") of Chiba Prefecture responded to this challenge. With the basic goal of helping farmers gain independence, Wago is a corporate group that engages in a broad range of business focused on agriculture, including processing, sales, and recycling, not to mention efforts to improve the techniques of producers.

Through voluntary efforts by individual businesses in the production, processing and distribution stages, Wago has gained recognition for its proactive efforts to sell imported organic bananas and further encourage right off the farm production and local production for local consumption,¹ while carrying out innovations that produce new added value. Wago first began to realize that its know-how could be applied overseas when it was given the explanation about the current state of agriculture in Kenya. Mr. Tomoyasu Tsuge, head of Wago's business operations in Kenya says, "We thought that our experiences could contribute to resolving the challenges in agriculture in the country."

To determine whether its know-how accumulated in Japan could be applicable in Kenya, Wago initiated a Feasibility Survey with the Private Sector for Utilizing Japanese Technologies in ODA Project² in 2014 under JICA's Partnership with Japanese Small and Medium-sized Enterprises (SMEs) for the Private Sector for Utilizing Japanese Technologies in ODA project.³

First, Wago surveyed the local market and the needs of consumers. This research focused on tomatoes, which are a staple at the dining table of Kenyans. The survey indicated that farmer

incomes could be greatly improved if demand for safe and secure tomatoes could be met. As a result, Wago conducted a workshop for small-scale local farmers and then it worked with them to carry out cultivation

verification in greenhouses.

When tomatoes were cultivated on a trial basis utilizing Wago's know-how, the average yield increased 1.3 times and buyers from Kenya's major supermarket chain raved about the quality. In particular, it was found that the large increase in yield and improved quality were achieved through measures promoting the use of greenhouses and curtailing the use of chemical fertilizers, both of which were made possible by the introduction of cultivation management know-how and appropriate pest controls. Based on these results, farmers who participated in the trial cultivation have been adopting Wago's know-how to increase yield and improve the quality of their own tomatoes.

Furthermore, the survey on the market and consumer needs found that there was growing demand among Kenya's wealthy and middle income class for new food ingredients and fresh foodstuffs that are safe and secure. In particular, young middle income class consumers tend to actively try new food ingredients with added value. For example, there is strong demand for organic vegetables whose farmer is specified. It was also determined that tomatoes and strawberries grown with Wago's cultivation know-how that are sweeter and have a richer taste would be well received by consumers in Kenya.

In order to create a model for steadily increasing the number of small-scale farmers who "grow crops in order to sell them," Wago plans to initiate, partnering with a local university, a demonstration project for cultivation management know-how and product development with high added-value.

To further increase the income of farmers in poverty in Kenya through the cultivation of cash crops, these crops need to be sold not only domestically in Kenya, but also internationally in the future. Therefore, Wago is now studying distribution networks to Europe and the Middle East.

Among other East African countries, Kenya is considered to offer an ideal environment for crop production because of its stable climate and rich soil. Once market needs grow and value-added agriculture is carried out through the voluntary efforts by small-scale farmers who make up the majority of Kenya's agricultural industry, the number of poverty-stricken farmers should decline. "I strongly feel that the agricultural technologies for farmers that we developed in Japan can also be of help to 'quality control,' 'creating added value,' and 'strengthening supply and sales systems' in Kenya," says Wago's Mr. Tsuge. The seeds of Japan's proactive agriculture have been sowed and are now beginning to bud one by one across the vast land of Kenya.

*1 Local production for local consumption means the act of consuming items that were produced locally. Furthermore, the consumption of agricultural products produced in the community by the community connects producers and consumers. This allows consumers and producers to share a relationship where they know each other by face and can talk to each other, while also offering consumers the opportunity to purchase food and produce grown in the community, and contributing to the vitalization of community agriculture and related industries.

*2 A survey on the feasibility of using a certain product or technology for the development of a developing country based on a proposal from a Japanese SME.

*3 Projects aiming to achieve both the development of developing countries and the activation of the Japanese economy by utilizing Japanese SMEs' excellent products and technologies through ODA.



A Japanese farmer teaches tomato cultivation methods at a local greenhouse. (Photo: IMG)