

Learning to be a Farmer through Local Vitalization Support.

After I finished my four-year assignment in Ethiopia I started working as a local re-vitalization supporter in Mito City, Ibaraki prefecture in November 2020. My three years' work has also been a learning process. My goal is to acquire skills in fruit tree cultivation and to work in agriculture as my main livelihood. Establishing relationships and trust with local stakeholders resonated – it was very similar to the approach essential in my international cooperation activities.

In Mito City, there is a fruit tree production area which is not so large but close to the consumer residential district. I am a trainee at the Mito Orchard Association. Currently, 10 member farmers, mostly in their 80s, grow pears, grapes, and apples although there were 23 members in the past. Securing successors is an urgent task. At the beginning of my activity, I did my best to build relationships through supporting their agricultural work and talking with them about their experiences. At the same time, I prepared for life as an independent farmer by renting vacant farmland and planting fruit tree saplings. In addition, I took an internship at a blueberry picking garden outside of Mito city since I was interested in cultivating blueberries which are relatively easy to grow organically and to manage for beginners.



Blueberry farmer during my training

However, agricultural activities are proving more difficult than expected. Even though I had been involved in agriculture-related projects in international cooperation, my basic understanding of what it is to actually be a farmer was lacking. There are always things I don't know, such as how to handle bush cutters and pesticide sprayers, how to select seedlings and various materials, and where to buy them. By managing the farmland by myself, I learned that the vast majority of farming work consists of miscellaneous tasks such as weeding grass. In order to

minimize such tasks and make a profit, years of experience and investment in tools and machinery is necessary. Through my own activities, I have come to recognize the tenacity of farmers in African and Asian countries who make a living from agriculture in harsh conditions without machinery and infrastructure.

It has now been just over a year since I started, and some member farmers have begun to acknowledge my willingness and have allowed me to take over a part of their patches of blueberry, grape, and pear trees. Additionally, I have started greenhouse horticulture for grapes on some rented farmland. Even though I could succeed and rent the orchards and the farmland, it will take several years to allow the harvest of fruits and obtain any stable farm income. For new farmers from non-farming backgrounds or families, a large amount of initial investment for machinery and facilities is a tough hurdle as is acquiring the necessary agricultural techniques. In addition, environmental conditions tend to be harder and harder even in Mito City due to global warming in recent years. Open fields are often affected by pests and diseases. Measures such as rain protection facilities and introduction of new varieties which are weather/pest resistant are required to adapt to climate change.



Pruning of grape vines

I am doing my best to become an independent fruit farmer. At the same time, it is necessary to promote and sustain the area as a fruit production hub. For that purpose, a kind of system is expected to be prepared for accepting and training people who are interested in agriculture and fruit production. I would like to take steps forward to address challenging local issues in Japan by making use of what I learned in the field of international cooperation.

(January 2022, Yoshikura)

Comparative analysis of the state of agricultural extension in different countries <Extra issue>

Comparison with history

In this series, we have discussed and provided examples of Agricultural Extension Officers (AEOs) and extension situations in various countries with which we have been involved in our projects. The series consisted of a total of 7 parts and concluded with the previous issue (No. 115). However, in December 2021, we had the opportunity to present this topic as a case of agricultural extension in the brush-up training for JICA experts, entitled "Agricultural Extension Activities in Overseas Technical Cooperation - Considering Future Extension Activities," at the JICA Tsukuba Center. After the presentation, we received many comments expressing empathy with the topic of "Psychological Distance between farmers and AEOs," which was introduced in AAINews No. 111. We were also honored to receive comments acknowledging the "importance of building relationships with extension workers and research stations or administrative personnel," as introduced in the 5th and 6th parts of the series (No. 113, 114).

As participants, we also learned a lot from this training. In particular, the lecture on "The history of agricultural extension in Japan and the world" was very interesting. For example, while we have been promoting "market-oriented vegetable cultivation" and "improvement of quality of life" as a Livelihood Improvement approach in Northern Uganda, Japan Agricultural Cooperatives have been involved not only in agricultural improvement extension but also in livelihood improvement extension since the beginning of the Cooperative Agricultural Improvement Extension Project in 1948. This fact was intriguing because it seemed as if history and the present overlapped. By delving deeper into the extension activities at that time, we may be able to obtain information that will contribute to future activities.

Another interesting aspect was the transformation of extension methods in Japan, from the "top-down" approach based on the needs of farmers to the "advisory and guidance" approach where expert AEOs provide advice and guidance, and then the "facilitation" approach that supports farmers' practical learning process. We believe that this change was not merely an evolution of

extension methods in Japan into a better form, but rather a response to the needs of the field and the technical level of the farmers at the time. In developing countries, the "top-down" approach is still important in technical extension, but at the same time, extension activities that address challenges in the field and the development of "thinking farmers" are also required simultaneously. Therefore, we believe that it is an important process to develop "thinking farmers", involving AEOs instructing farmers on technologies, practice them in the field, and address challenges together. Technical dissemination by AEOs who do not understand the principles and purposes of the technology tend to impose textbook-like procedures. Similarly, "facilitation" by AEOs who have only superficial knowledge about the technology are unlikely to develop thinking farmers. Above all, as mentioned in Part 3 (No. 111), the acquisition of technology is one of the conditions for gaining farmers' trust in AEOs.

In this training, we learned about the history of agricultural extension worldwide. A lecturer explained the case of the "Green Revolution," where some technologies that showed good performance in experimental fields were not successfully applied in the farmers' fields. He introduced the phrase "knowledge is born in experimental fields, but technology is only born in farmers' fields." Part 5 (No. 113) of this series also discussed the problem of the separation between research and extension in developing countries, and we strongly sympathized with the lecturer's emphasis on the importance of practicing in the field. We were able to reaffirm the importance of going out into the field in agricultural extension.

The training at JICA Tsukuba Center provided an excellent opportunity to go beyond AAINews and engage in discussions. Technical extension is a topic that is expected to remain relevant in future international technical cooperation, and above all, "technology dissemination" is a crucial pillar for Appropriate Agriculture International Co., Ltd. It would be greatly appreciated to have the chance to learn from various perspectives and practical experiences, and exchange opinions.

Useful plants in Sudan <Part 1>

Introduction

Previously, AAI News published a series of essays titled “Essays on Sudan Kassala” which explored aspects of “useful plants” within Sudanese agricultural culture and cultivated plants, obtained through the experience of a project in Kassala State, Sudan. After that, the author's activity site in Sudan shifted from Kassala State to River Nile State, and the agricultural types tackled in the project changed from dry farming to irrigated farming using river irrigation from the Nile River. It became a good opportunity for me to reconsider Sudanese agriculture from a different angle. Here, as a new series, based on the accumulation of observations and investigation made so far, I would like to take up the issue again, on the usage of “useful plants” in Sudan.



Vegetable market in a rural region

I use the term "useful plants" not from an academic perspective but as I have discovered them through experience in the project, and my focus is on their role in the daily life of Sudanese people. The mission of agricultural experts like us is often to study and to improve the livelihood of farmers from the practical point of view. This is because we need to be properly involved on the ground..

While focusing on various aspects of "useful plants" such as history, cultivation methods, preparation and processing methods, usages, sales, food culture, etc., I would like to introduce "useful plants" by adding my own unique perspective. I am going to introduce Sudanese farming culture in a multifaceted and comprehensive way to the best of my ability. When we talk about Greater Sudan's agricultural and cultural complex, it is sometimes interpreted as encompassing a vast area extending as far as West Africa. However, unless otherwise specified, please note that the term "Sudan" in this and forthcoming

articles is limited to the so-called "Republic of the Sudan" which resulted after the separation of the north and south of the former Sudan.

When agricultural experts link useful plants to farmers' livelihood improvement in the project, it is the better if there are more options for means and methods. The Nile River flows through the central part of Sudan from south to north, and its benefits are immeasurable for the establishment of irrigated agriculture. But when it comes to ‘useful plants’ for development nationwide, options are limited by arid conditions elsewhere in Sudan. Useful plants are restricted by arid conditions. When I traveled to tropical Indonesia in the past, which has a humid climate, I was overwhelmed by the richness of the variety of “useful plants” and the diversity of usage by residents. Compared to dry countries/regions such as Syria, Palestine and Sudan, which the author has been in contact with on a daily basis, I was stunned by the breadth and variety of options for preparation and processing there in Indonesia when aiming to utilize plants for improving the livelihoods of farmers. The diversity of such wetter lands was somewhat enviable, however, there is still considerable variation and depth in the use of "useful plants" even in dry areas, and I think that there are also interesting points found in Sudan in terms of their usage.

Regarding “useful plants” in dry land Sudan, of course, it includes cultivated plants such as okra and onions etc., but sometimes we also pay attention to trees and weeds around the fields, and explore usefulness from the perspective of project implementation. I would like to report about them, too, in this series.



Women processing onions after harvesting

Farm visiting reports <Part 2>

Agrico-en Garden

As the second article in our irregular series focusing on Japanese farmson , we introduce “Agrico-en garden”, part of “the agricultural product ownership program” implemented by Tsukuba City, Ibaraki Prefecture.

The Furuku area of Tsukuba City, where the farm is located, has many rice fields and a rural landscape. This said as Tsukuba urban area has expanded and there are now very few full-time farmers. Mr. Kaoru Kojima, the owner of the farm, did not engage in farming when he was young, but he started farming on the farm he inherited from his parents when he retired about 10 years ago.

Tsukuba City's “agricultural product owner program” has been in place since 2006, and the farm has been involved in it for about six years. The participation fee for Agri-coenthe program is 10,000 yen for the Four Seasons Course and 7,000 yen for the Spring and Autumn Course. Participants can experience various types of farm work once a month and take home freshly picked vegetables when harvested. Under the city's program, farms are required to guarantee a minimum quantity of agricultural products to participants, and in the case of this farm, 5 kg of ginger, 10 kg of potatoes, and 10 kg of onions were guaranteed.

The farm consists of a vegetable-oriented primary farm (15a) and a fruit tree oriented second farm (13a) and they grow a total of about 20 items, including spring and fall crops. In addition to growing standard vegetables, the farm incorporates brightly colored varieties such as red and yellow bell peppers and radishes that are white on the outside but red inside, in order to attract participants’ interest. The farm also grows other things such as watermelon, maize, sesame, and groundnuts, which are popular because of the fun harvesting process. They are planted alternately each year so that repeat participants can have a fresh experience every year.

Our visits were on October 24 and December 5, 2020, the days of the program activities. Activities included harvesting taro, spinach, ginger, and leafy vegetables in October, and radish, Chinese cabbage, and green onions in December. Since the day in December was the last day of the year’s program, there was an outdoor party on the farm after the work, and the participants enjoyed vegetable stew. About 30 participants gathered on both days, but in

order to prevent the spread of the Covid-19 virus, Mr. Kojima's explanation was simple on the day, and the participants kept their distance while listening to him speak. When all the participants entered the field, the field became crowded, but Mr. Kojima guided the participants appropriately to their respective plots, so there was no confusion and the work proceeded as planned. I was impressed with his careful preparation based on his experience and the efficient aactivities as planned on site.

I learned a lot from Mr. Kojima about his ideas in carrying out the activities of the program. One of the ideas that left an impression on me was that even if it rained, the activities were not postponed ut carried out as scheduled. In this way, the work was done efficiently, since there was no need to redo preparation work for the activities and there was no need to coordinate schedules with participants by phone or e-mail. For activities on rainy days, he negotiated with nearby facilities to rent space under the their eaves. For example, in the case of harvesting maize, the maize stalk was harvested together with the ear in advance. On the day of the activity, the participants were able to enjoy the harvest by picking the ears from the stalk under the eaves.

When I listened to Mr. Kojima's talk, I felt that he was always re-discovering and enjoying the fun of farming and the deliciousness of fresh vegetables, and that he was trying to convey such a fresh feeling to the participants. He also observed what the participants were happy about, and I felt that reflecting this in his activities had led to the popularity of his farm.

Although the activities at “Agrico-en garden” were well received by many repeat participants, Mr. Kojima has put his six-year-long activities on hold for the time being due to his health condition. This said, he has not completely stopped farming, and is still engaged in agriculture, mainly fruit cultivation. Looking at how active he is, many former participants would like to see him resume the program again, as long as it is not too much of a strain on his body.



Mr. Kojima instructing to the participants (Center)