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Participating in training for Syrian irrigation engineers in Lebanon

AAI has been committed to Syria for many decades and has developed a special feeling of sympathy for the country. AAI has sent numerous JICA long-term experts to Syria over the years and it was here, too, that we had the experience of supervising our first technical cooperation project, DEITEX (Development of Efficient Irrigation Techniques and its Extension). The country has been in a particularly difficult situation following the outbreak of civil war in March 2011. The conflict has not just destroyed its main economic and social infrastructures but has also generated millions of internally displaced persons and refugees beyond its borders. In October 2019, when such desperate civil war situation finally showed slightly bright signs, a training course was organized by FAO/ICARDA titled “Efficient irrigation techniques and rainwater harvesting” in Lebanon. AAI assigned Matsushima and Koto to the training as instructors, as both experts had earlier been deeply involved in the DEITEX Project in Syria.

The first half of the training provided lectures on theory and knowledge regarding efficient water use and water harvest by ICARDA researchers. The second half was allocated for lectures and practices on design and diagnosis of irrigation systems, farm survey methods, and first aid solutions to damaged irrigation facilities by the AAI instructors and former Syrian DEITEX counterparts. On the final day, each participant prepared an action plan to apply what they had learned in the training to their future duties. In order to make the action plan, firstly they sorted out "useful learnings" obtained from the training, and selected appropriate ones to be utilized in, for example, dissemination activities to solve problems that farmers face. The training course went smoothly and according to plan although we had an unexpected incident involving large-scale anti-government demonstrations in Beirut and elsewhere occurred on the day of our action plan formulation.

According to the Syrian participants, currently many well-irrigation systems owned by farmers have been destroyed and left as they are due to the shortage of repair parts in the country. In addition, fuel for pumps is also difficult to obtain because its price has soared more than 10 times since the outbreak of the civil war. Many of the action plans focused on first aid solutions to address the maintenance of irrigation systems and damaged irrigation facilities. We admired the willingness of the Syrian engineers to reconstruct existing irrigation systems adopting flexible and available measures under the current difficult situation. The curriculum for this kind of training should be based on actual needs of the participants, but it is often “supply-oriented”, in which instructor's convenience may be prioritized. Particularly in emergency cases like this time of support for Syria, we noticed that it is very important for the instructors to respond promptly and flexibly according to the ability and situation of the participants.

Fortunately, we worked together in this training with the former DEITEX project counterparts, and we were very happy to be reunited again for the first time in eight years. We could not meet each other for a long time because of the civil war, but the joint-work was carried out very easily and fruitfully without being hindered by the long time we had been apart. We again recognized the excellent ability of the former counterparts during the training. In addition, we were very impressed that the sense of solidarity cultivated in the DEITEX Project continues under any circumstances.

Working together with the DEITEX C/Ps

Comparative analysis of agricultural extension situation in individual countries <Part 1>

Introduction

AAI has participated in agricultural and rural development projects in different countries and has been engaged in various activities to improve the livelihood of residents and to transfer technology to farmers. In these activities, we have had many chances to work together with professional people generally called "agricultural extension officers" as counterparts. In many cases they were local government officials but sometimes they belonged to the private sector or worked for NGOs. Their titles and duties also varied depending on the country and organization, but the common duties of these agricultural extension officers" were to provide technical advice and useful information to farmers. Therefore, when we were involved in agricultural and rural development in each country, the capacity development of agricultural extension officers was as important as development of useful technology. When working together, while building a relationship of trust as a counterpart, we have engaged to develop appropriate technologies for the local people and to strengthen the capacity of farmers.

When working in the field, we have the chance to observe agricultural extension situations peculiar to each country. For example, in some countries, "agricultural extension officers" were socially highly regarded as professional engineers with university graduate degrees, but some of these agricultural extension officers were reluctant to visit farmers due to their insufficient expertise and practical skills. In other cases, some officers were ridiculed by the farmers when they tried to bluff when having insufficient knowledge, and the overbearing manner of some, alienated farmers. However, we have seen many cases where the project improved their expertise and practical skills, and, through training and working together, they were able to interact with the farmers with confidence and flexibility. Additionally, in the technical training courses of the JICA Tsukuba, with which AAI has been engaged over a long period, we have heard many voices of ex-participants saying, "Thanks to the training, I become able to face farmers with confidence though I was afraid to visit farmers before." Or words to that effect.

In another country, “agricultural extension officers” had a certain level of expertise and skills, but the extension services didn't sufficiently reach farmers because the extension system and the number of staff were not sufficient to cover the agricultural production sites.

In some countries, the teamwork between stakeholders was vulnerable to a lack of mutual cooperation. In these countries, exploring ways to promote collaboration between different organizations and personnel, including the research sector, became one of the major tasks of our activities. Looking at the agricultural extension workers and the extension status of each country in this way, it is interesting to be able to distinguish the characteristics of agricultural extension in each country. In the past editions of AAI news, we have discussed about agricultural extension officers and extension situations in numerous environments and circumstances. Most of these, however, have been introduced individually. Therefore, in this series, we would like to clarify the differences and look for hints for future activities by conducting a cross-sectional comparative analysis of the extension officers and the extension situations in each country.

We would like to proceed with this comparative analysis through brainstorming based on the experience that AAI has garnered after having been involved in various projects in different countries rather than using quantitative information. In the pre-discussion among AAI staff, the following themes were selected as the discussion points for this series from the many aspects of agricultural extension. These are (1) "technical capabilities" of extension officers / organizations, (2) "organizational capabilities" of budgets, personnel, systems, etc., (3) "cooperation capabilities" with other organizations such as research institutes and the private sector, and (4) "distance from the farmers". From the next issue, we will introduce the results of discussion among AAI staff on each theme mentioned above. We would appreciate it if you could provide us with your opinions to help us develop more multifaceted discussions.

An agricultural extension officer teaching a training method of watermelons to farmers (Uganda)

Explore the world of beekeeping <Part 7>

Conclusion

In this series, we have introduced various beekeeping methods, from traditional beekeeping in Ethiopia, Mozambique and Iran to modern beekeeping in Marumori, Miyagi Prefecture. Traditional beekeeping methods have been devised using available materials in the area to create beehives and utilize unused resources such as natural trees and mangrove nectar. It can be a cash income even for local farmers and women who do not own land without competing with agricultural activities that require large farmland. It was also found that it contributes to agricultural production by providing pollinator insects. At the same time, it can be a small business involving selling or renting bee colonies for pollination.

On the other hand, beekeeping that utilizes unused resources does not mean that honey can be produced indefinitely. It depends on the number of bee colonies as well as availability of nectar throughout the season. As introduced in the case of Marumori, it is necessary to recognize plants providing nector and to give sugar water in case honey sources are lacking. As an activity similar to hunter-gatherering, most traditional beekeeping activities have harmonized with nature by utilizing local resources and traditional knowledge. However, in recent years, bee-keeping tends to be a kind of commercial activity which does not recquire traditional methods and knowledge. Then, the burden on local resources also increases. As with cultivated agriculture, what used to be just a process of sowing seeds and waiting for fruit has changed. In pursuit of productivity, not only materials such as fertilizers and pesticides but also skills and knowledge about farming management are necessary. Without an opportunity for farmers to learn from each other about new technology as in the case of Mozambique, it would be difficult for ordinary farmers to learn and shift from traditional to modern methods.

In addition to those socio-economic changes, beekeeping is as sensitive to external factors as any part of an ecological system. During this series, one of our readers provided information about the large-scale disappearance of bees in what is called “colony collapse disorder” in the United States in 2006. Even though the cause has not yet been identified, multiple factors could be involved. Some reports point out influence of pesticides in the incident. During the activities in Ethiopia, the disappeance of bee colonies from modern hives frequently occurred. It is presumed that spraying of pesticides by neighboring farmers was a key factor. In addition, it is also said that climate change such as global warming affects bee-keeping activities by changing flowering periods of plants and suitable habitat for honey bees.

While beekeeping is an effective income activity for small farmers and women, what points should be kept in mind in order to promote it under the various changes and influences currently at work? The following three points can be stressed as key aspects throughout this series.

(1) Appropriate techniques: Consider beekeeping methods that suit the amount of local resources and the knowledge and skills of farmers, irrespective of whether best practice is ‘traditional’ or ‘modern’.

(2) Local efforts: Support individual beekeeping activities as a local industry by promoting opportunities for farmers to learn from each other.

(3) Balance with the natural environment: While utilizing finite but unused resources, recognize that this is of benefit to creatures (honeybees) that are sensitive to surrounding human activities and changes in the environment.

In order to put these points into practice for sustainable beekeeping, it will be necessary to carry out step-by-step activities through trial and error as a long-term effort. For improving skills and spreading knowledge to local communitie, this would be difficult to achieve in short-time trainings and experiments. Under these circumstances, the activities in Marumori cooperating with Zambia have great potential for promoting beekeeping, and we would like to appreciate such efforts.

A demonstration combining traditional, transitional and modern beehives in Ethiopia

AAI and Me – Shigeya Hasegawa <Part-1>

Background of being born in a rural area and learning engineering

As an instructor of the Japan International Cooperation Center (JICE), I was involved in the "Country-focused Group Training Course on Vegetable and Upland Crops Cultivation for the Republic of Tajikistan" in 2000. After joining Appropriate Agriculture International Co., Ltd. (AAI) in 2001, I was in charge of management and technical instruction work for 21 training courses on vegetable and field crop cultivation at JICA Tsukuba until the end of 2018.

AAI started an activity in a field specialized in technology related to dryland agriculture, but now the training activities for the participants to acquire and disseminate technologies including cultivation of vegetable, field crops and rice, seed production, irrigation, market-oriented farming, etc. has become just one pillar of the company. The trigger of this was that AAI contracted, as the first private sector partner, the training on vegetable cultivation techniques which had been conducted by JICA Tsukuba. I have been involved in the direct instruction practice on vegetable cultivation in which AAI and myself had no experience at that time. I retired two years ago, so I will try to sort out what I have done in the meantime.

Situated in the foothills of Mt. Ninouji, the Iide Mountain Range, where the Kaji River flows is Shibata City, my hometown. It is a typical rural village centered on rice cultivation. I remember walking straight to school in the frozen rice fields in the middle of winter, and, in the Spring, the flower of milk vetch for improving soil fertility was beautiful. When the snow disappeared, smoke of rice husk charcoal rose from here and there, and semi-irrigated rice nursery began in the rice fields, and the seed paddy was soaked in a bath for several days and sprouted and was sown. It was natural for the children there to help their homes during the Spring and Autumn farming seasons when there were no rice transplanters nor rice harvesters. At the time of rice planting, the work proceeded at once with the help of the relatives and mothers from distant areas doing temporary work. When school was off, I threw 20 cm long bundled seedlings to the adults in the rice field while running along the ridges. After I had grown up, I was counted as one full labourer and helped rice planting until my back hurt. On autumn holidays, I helped with "Hazakake" and "Rice down" to dry the rice in the sun, and it was an unpleasant task because fine rice straw pierces stung and scratched my neck. It was a good feeling to ascend the three-meter-tall bamboo platforms with their bundles of rice ears to see the surrounding scenery and the Sea of Japan.

Although the number of houses had shrunk, most of the farmers in the area kept dairy cows for stable income. My family had at most 7 or 8 milking cows, so it was my daily routine to prepare milk for the calves, cut the straw for the litter, which is important to prevent mastitis, and to clean the bedding. At that time, litter mixed with manure was piled up in a corner of the rice field to make compost and was applied every year. Mowing the grass early in the morning and keeping a cow without a break all year round is a difficult task, but at home, we enjoyed eating "milk tofu" prepared by dripping vinegar on the milk that was not shipped immediately after giving birth. I have one nostalgic memory of being immersed in a bath to which about 20 liters of milk had been added.

Efforts to improve livelihoods continued for many years during my grandmother's time. In addition to rice cultivation, they tried sericulture, cultivation of figs and cherries for canning, and tofu and fried tofu making. In this last case, soymilk preparation using stone mills in the middle of winter is said to have been difficult. In my father's time, dairy was the major activity, but we tried various other activities such as vegetable seed production, and sweet corn, turnips, and asparagus cultivation. My brother had a daily routine of taking care of dairy cows such as milking, but it was my role to help ship sweet corn and turnips to the Niigata Central Wholesale Market.

Rice fields spreading at the foot of Mt. Ninouji in the Iide mountain range in late autumn

The environment in which I was born and raised was a place rich in nature where I could feel how to grow crops and raise livestock. However, I strongly felt that it would be difficult to live in agriculture, so I did not choose agriculture as my future course.