

Connecting people, agriculture and the environment through appropriate technologies

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JICA President's Award

In October 2020, AAI received the JICA President's Award for its 20-year contribution to the JICA Tsukuba training course and its contribution to overseas projects. It is a great honor for us to be appreciated for our achievements such as implementation of training courses in Japan and our overseas projects.

The operation of our training courses has been supported by the cooperation of many people. The lectures were conducted with the cooperation of researchers from research institutes, universities, and related organizations, and study trips were conducted with the cooperation of agricultural organizations and farmers inside and outside Ibaraki Prefecture. When we conduct field practice, field staff of JICA Tsukuba from "Kawakami farm Co., Ltd." supported us. Since some of them were part-time farmers in the Tsukuba area, we often received advice on vegetable and upland rice cultivation technology based on their local farming experience. This was an important contribution to develop the cultivation system in JICA Tsukuba. The successive technical advisors of JICA Tsukuba always gave us advice on their specialized fields, but also gave technical advice related to the overall training. We also received support from successive JICA staff members, the director of the training section, and directors in general. In addition, the instructors of other courses working in the same office were also very helpful. We would like to thank these people who took care of us and the trainees who have taken the training seriously so far and who share our joy.

JICA Tsukuba celebrated its 40th anniversary in 2020. When we started implementation of a training course 20 years ago, there was already a long-standing accumulation of experience of so-called JICA 'directly managed training' in JICA Tsukuba. We have learned from that experience and have tried to emphasize field practice and provide attentive guidance responding to the needs of participants. At the same time, we aimed to balance domestic training projects and overseas technical cooperation projects, and to utilize domestic experience overseas and use our overseas experience domestically. For this reason, most staff who are usually in charge of overseas projects have also been involved in the training at lectures, field practice, presentations, etc., and have endeavored to share their experiences with the trainees. In addition, trainees who have returned to their home countries may become counterparts to JICA projects in each country. In such cases, project activities will proceed smoothly because they understand Japanese culture, customs, and techniques. This is also an example of utilizing the outputs of training in Japan in overseas technical cooperation and is one of the rippling effects we expect.

The three perspectives that AAI values, "thinking from the field," "dialogue and joint action," and "promotion of collaboration," are important not only for our overseas operations but also for training at JICA Tsukuba. We aim to understanding the issues of the trainee's working area, discussing these, and seek solutions, and we also aim to trigger future collaboration by linking various lectures, experiments, field practice and study trips ensuring all these things become a medium for problem solving. Currently, JICA is seeking а new implementation system for training in Japan that can deal with the challenges thrown up by Covid-19. We



Receiving the award at JICA Tsukuba.

would like to make use of our experience accumulated so far, to strive to implement better training, and utilize the results in overseas projects.

Comparative analysis of agricultural extension situation in individual countries <Part 3>

Distance between farmers and agricultural extension officers

In this series, we are discussing the agricultural extension work and situations of each country from four entry points. This time, we discuss "distance from farmers".

In Palestine, the number of agricultural extension officers (AEOs) was small compared to the number of farmers. By contrast, in Syria there were many extension centers but AEO's transportation was limited. In Pakistan, some AEOs said that the area they were in charge of was too far from the town they lived in and that they had never visited. In Mongolia, the vast land area was dotted with a small number of farmers, which inevitably reduced the efficiency of extension activities. There are various situations depending on the circumstance of each country, but it seems that a scenario where AEOs cannot easily go to the farmers' fields is common. This said, it is impossible for AEOs to visit all farmers in the target area frequently, no matter how the extension system is enhanced. Therefore, in the field of agricultural extension, the organization of farmers has been promoted, and various extension methods have been developed and put into practice. In recent years, the development of digital technology has been remarkable, and its benefits have reached the rural areas of developing countries. Due to the COVID-19 spread in the last two years, various dissemination methods using digital technology are being tried widely. Although these methods still have many challenges, such technology may shorten the physical distance between AEOs and farmers, and a smoother form of extension activities may be born in the future.

In addition to physical distances, we went on to consider the psychological distances that can exist between the farmers and the AEOs. Why is there such a psychological distance from the farmer in the first place? How can the gap be closed? We heard an interesting story about this issue in the activity survey of ex-participants of the JICA Tsukuba Vegetable Cultivation Technology Course conducted in Nepal in 2014. When I asked the AEOs who returned to Nepal after completing the training in Japan what they thought had changed in theirselves, the answer ran along the lines of "I am now able to visit farmers with confidence." A typical trainee would add that "Previously, I was afraid to visit a farmer." "I didn't want to go to farmers' fields because I was afraid of being asked what I didn't know. Even if I went there, I just talked one-sidedly. However, I became confident that I had acquired the skills through the training in Japan, and now I can listen to the farmers' voices closely." We often heard similar stories from other ex-participants. Another interesting case is in Syria. It was hard to say that the AEOs in the country were trusted by farmers in terms of technology because they were seen as inspectors of the planned economy rather than advisors. However, when the project trained AEOs on irrigation technologies, provided them with irrigation measuring kits, and sent them to farmers, they could carry out effective extension activities. By measuring irrigation

amounts in front of farmers and showing data in comparison with required water amounts, they became trusted by the farmers. It is thought that the psychological distance was shortened when the farmers felt that the



AEOs measuring irrigation water amount in farmer's field (Syria)

technical advice provided by AEOs would be useful, even if only a little. In this case as well, the AEOs reported that they felt they could now visit farmers with confidence.

In the previous issue, we mentioned that the technical skills required for AEOs are not just specialized knowledge and skills, but rather comprehensive field skills such as observation, problem analysis, and communication skills to identify problems in the field. We also observed that in order for AEOs to acquire such comprehensive field skills, it is extremely important for them to gain sufficient experience in the field. However, we thought it may also be important to acquire a little specialized knowledge and skills in order for AEOs to take the first step to go to the farmer's field and gain the trust of the farmer. And when the technology is accepted and relied on by farmers, AEOs will actually start to enjoy going to farmers' fields . The oppotunities to learn in the field will then increase naturally and this in turn will promote an increase in the technical and field capabilities of the AEOs.

"Forced" remote management

Local operations of a project may be interrupted due to unforseen circumstances such as the outbreak of a civil war or a coup d'etat. One of the cases we have experienced is the suspension of the "Project on Development of Efficient Irrigation Techniques and Extension" in Syria, which degenerated into civil war in the aftermath of the "Arab Spring" that began in Tunisia in 2010. This time, based on the case of Syria, where the Japanese were forced to evacuate and the project was operated remotely, I would like to look back on my experience and knowledge for overcoming remote difficulties and maintaining projects by distance collaboration with local staff and counterparts (CPs).

The Syrian project was conducted to strengthen training and dissemination of water-saving irrigation technology in the agricultural sector, which is the largest water utilization sector, in response to the tight supply and demand on the country's water resources. In Phase 1 (2005-2008), the activities were targeted at the three prefectures of Damascus, Hama, and Daraa, and in Phase 2, which started as a successor project in 2008, two prefectures of Aleppo and Raqqa in the north were added. Just as it had become a wide-area activity that covered 5 prefectures nationwide, it was suddenly interrupted for the reasons mentioned earlier. In 2011, increasing political instability made it difficult for Japanese experts to travel and on-site work had to rely on the Syrian CPs. As the civil war itself became increasingly bogged down every day without any hope of recovery, remote project activities such as training and extension at demonstration farms continued for nearly a year.

In collaboration with CPs, the core part of the project activities such as training and extension related to watersaving irrigation was carried out quietly, but as the project implementation period came to an end, what to do with the final conclusion became a big issue. Various possibilities were considered, but in the end, it was not possible for Japanese experts to return to Syria and hold a JCC or seminar with CPs from the Ministry of Agriculture of the central and local governments and related parties. However, we were able to invite the CP representatives to Amman, the capital of neighboring Jordan, and hold a final workshop to complete the project activities, and we were able to have a happy reunion with the Syrian CPs.

At the two-day workshop in Amman, the efforts and current situation of each prefecture were reported by the participants and we shared the issues they faced in the project, and discussed what was needed to solve such issues. In addition, we reviewed the ideal role of extension officers and reconfirmed future issues as irrigation extension officers and Subject Matter Specialists (SMS). The abilities required for irrigation extension officers and SMS were evaluated using the CUDBAS (Curriculum Development Based on Ability Structure) method. Originally, CUDBAS is a tool used at the start of a project to create a training curriculum and a training plan. However, in this project, it was used as a summary of the capacity building training to confirm the achievement points at the end of the project and to clarify future issues. Although the project activity ended with a slight incomplete feeling in a somewhat inconvenient

environment using remote operation, we have obtained an unexpected byproduct namely developing a new method to use CUDBAS in project wrap-up work.



Summary work using CUDBAS with Syrian CPs (Amman)

Despite this remote work, the project goals were fully achieved through cooperation between Japan and Syria. Above all, it was a great piece of luck for the project that a large number of talented human resources such as irrigation extension officers and SMS were trained as a result of the accumulation of activities from Phase 1.

Next time, I would like to take up the case of Sudan, which has become a "forced" remote management like Syria, and deepen the discussion on the significance of "internalization" of the project.

The encounter in the KAF project led to JICA Tsukuba training work

After the oil crisis, KOC (Kashima Oil Co., Ltd.) planned to strengthen relations with oil-producing countries by leveraging sandponics and was considering where to go. In 1979, it was decided to implement the Kashima Abu Dhabi Farm (KAF) project as a verification test at a government farm in Al Ain, UAE. There was a connection with Abu Dhabi Oil Co., Ltd. (ADOC) where a boss and a colleague from the current Cosmo Oil Co., Ltd. was working. ADOC had a close relationship with Abu Dhabi National Oil Company (ADNOC) which was in charge of Abu Dhabi's oil and natural gas policy. The biggest deciding factor was, however, an encounter with Mr. Hiroyasu Onuma, the AAI founder, in a field survey in 1980. He was working in a project of the Desert Development Institute Japan (DDIJ), which conducted a

vegetable cultivation experiment by laying asphalt in the soil layer at the desert of our planned verification test area. Mr. Onuma's extensive experience was thoughtprovoking in ways which could not be obtained from the business report.



Mr. Onuma, Author, Dr Kojima at Fish Farm in UAQ

It was valuable for me to take care of the test farm, by interacting with engineers from Jordan, Sudan, Iraq, etc. and workers from Pakistan and Afghanistan who carried out the physical labor, and to treat them all as colleagues with respect. Looking back now, it was at this time that I met people from the same countries that were home to the trainees at JICA Tsukuba. From the KAF project, I learned

that it is important to formulate a goal (Vision) and make efforts to achieve it (Hard Work), but it was also a time of encounter that led to the successive big job which is JICA Tsukuba training work.



With engineers at the site in the government farm

The encounter with Dr. Yoshihisa Zaitsu and Mr. Akira Koto was through the Dubai Suburbs Landscape Greening Project, which AAI started as the company's first work in 1985, and Joint Study Project on Improvement of Arid Land Agriculture by the Faculty of Agriculture, Shizuoka University and the Faculty of Agriculture, United Arab Emirates University. One of the reasons why I was able to

join in the training work at JICA Tsukuba, which I was involved in for nearly 20 years, was that Mr. Kozo Toshimitsu, who was a colleague of Mr. Onuma in the project of DDIJ, was working in the training operation section.



Dr. Ikeda during diagnosis of hydroponic paprika

The next connection is that I met the people who took care of the KAF project again at JICA Tsukuba. Professor Hideo Ikeda of Osaka Prefecture University (at that time) taught me the relationship between cultivation with desert sand and nutrient deficiency. Mr. Hisashi Funakushi, who was the farm manager of the breeding farm of Mikado Seed Co., Ltd., handled long wartless greenhouse cucumber seeds, which was rare in Japan at that time. Both of them have been involved in the training for many years as external lecturers of the group training, "Vegetable Cultivation Technology" course. They are reliable external lecturers in plant physiology technology and production environment maintenance technology that are indispensable for learning the practice and also in seed production related technology as the second goal of the training. I was able to work together with the late Dr. Takahiro Okubo, who had been active in the field of upland farming especially in the crop rotation and cropping system and who had just retired from the position of training instructor of JICA Tsukuba and returned to the training course in Tajikistan. It was thanks to Dr. Okubo's network extending from Hokkaido to Kyushu region that it was easy to coordinate with the inspection tour destinations and lecturers related to the Ministry of Agriculture, Forestry and Fisheries. For a total of 19 years,

I was involved in training work on vegetable and field crop cultivation for 208 techniques trainees from 47 countries, and I think it was a result of the encounters many described above.



Dr. Okubo (front right), Dr. Zaitsu and Mr. Koto evaluating results of an experiment in Tajikistan course