

## JICA Tsukuba training past and present

Since September 2022, I have been conducting vegetable training again at the JICA Tsukuba center. After I left this office in 1997, I worked in the Philippines, Kenya, Afghanistan, South Sudan and others, and now I am back after a quarter of a century. Upon returning, I have noticed some changes and found many familiar with nostalgia. Compared to the days when personal computers were still new and mobile phones did not exist, the global spread of information and communication technology is remarkable today. With personal motivation, people can now easily obtain and learn various information even in developing countries. The income gap between Japan and the participant's country used to be very large, but now the gap has narrowed. For trainees, their allowances during stay in Japan are no longer as attractive as they used to be. The educational background of participants has also improved. On the other hand, I feel that there hasn't been much change in their English conversation skills and moral values.

This training, which involves interacting with the participants for about eight months, is more comprehensive and intense compared to short-term training. Interestingly, this vegetable course has been conducted in a form similar to Japanese agricultural colleges for over 50 years, dating back to the Overseas Technical Cooperation Agency (OTCA), the predecessor to JICA. Although there is a debate on whether this "traditional" training style is suitable in an era that demands pinpoint, efficient training based on problem-solving theory, the training has continued to adapt by incorporating new agricultural technologies and making revisions to keep up with the times.

The training here covers everything from sowing to harvesting and seed production of major vegetables, including planning and analyzing experiments, and further adding extension and management, making it comprehensive and practical. The curriculum allocates

60% of time to experiments and practical training, 20% to lectures, and 20% to observation and study tours, providing for a well-rounded training program, in my opinion. Recruitment for the trainees targets mid-level central and local extension officers, but actual participants include not only extension officers but also research and administrative personnel, making the group diverse. Therefore, while respecting the training concept, we aim to enable each trainee to acquire comprehensive knowledge and skills in vegetable production, fostering insight that allows for accurate judgment and decision making in their duties upon returning to their native countries.

Additionally, we hope that participants will take the opportunity to learn not only techniques and knowledge but also the sincerity, meticulousness, and altruistic elements of Japanese society experienced during their long stay in Japan, gaining hints for the development of their own countries. It would be ideal if participants, upon returning, are recognized as supervisors or directors who, having undergone long-term training in Japan, are rich in insight and excellent when it comes to balanced decision-making, and having become something distinctly different from the average. Those of us involved in international cooperation should reaffirm that this is an irreplaceable strength of Japan's international cooperation.



**Practical instruction in vegetable training  
(left: 1995, right: 2023)**

(April 2023, Nawashiro)

## 'Towards the 21st Century' Revisited <Part 5>

### Sakae Furusato Vegetable Garden

In the fifth article of this series, we report on AAI's recent efforts to foster regional revitalization in Japan.

Tsukuba City, Ibaraki Prefecture, famous for the Tsukuba Science City, was formed when six towns and villages were merged between 1987 and 2002. The city has been developed mainly in the science city area and along the newly built railway line, and the population here is still increasing. On the other hand, the city's eight "peripheral urban areas" (also known as Region 8 or R8), which were the centers of the towns and villages before the merger, are experiencing a decline in population and an increase in the elderly population rate. In response to this situation, the city supported the establishment of "community revitalization councils" in each of the R8 communities to encourage residents to take the initiative in revitalizing their communities. In addition, the city also held the Tsukuba R8 Regional Revitalization Plan Competition as an attempt to attract private-sector vitality.

Based on our extensive experience gained over 20 years of JICA agricultural training in the city and our expertise in rural development overseas, we prepared a proposal and submitted it to the competition in 2020. Our proposal, entitled the "Tsukuba Furusato ('hometown') Vegetable Garden Project," focused on the characteristics of the R8 district, which is close to the city center and surrounded by farmland, and provided an opportunity for "new residents" in the city center and "cooperating farmers" in the R8 district to interact through agricultural experiences. Fortunately, the proposal was adopted after the screening process.

After the plan was adopted, the target was narrowed down to the Sakae area from the R8 areas, and preparations were made through discussions with local residents, including the board members of the Sakae community revitalization council. Many of the board members were retired residents in their late 60s. We initially thought that we would find local "cooperative farmers" among this generation. However, most of this generation in the Sakae area had not continued the area's farming heritage and were working for companies, and the shift away from farming in the area was surprisingly

advanced. At one point we believed that the concept was no longer viable. Further discussions revealed that not a few people of this generation had the experience of living in a farming village and the sense of being a farmer, having watched and helped their parents with farm work when they were children. Therefore, we decided to ask such people to participate in the activities as "local supporters" to convey the culture and lifestyle of the rural community to participants from the city center, and AAI took the lead in providing them with vegetable cultivation techniques. In this way, the "Sakae Area Furusato Vegetable Garden" project was launched.

The "Garden" is a program in which AAI conducts a vegetable gardening class and participants from the city center can experience growing vegetables in a garden located in a beautiful rural landscape with a view of Mt. Tsukuba. The program also reflects the cosmopolitan nature of the science city by accepting foreign residents, taking advantage of AAI's overseas experience.

The "garden" is now in its fourth year. We have about 50 participants each year and find many repeat participants. Local supporters also enjoy the activities. Through this project, a small but continuous interaction within and outside the community has been created. While it may be paradoxical to use agriculture to revitalize an "urban" area, we believe that this activity has demonstrated its effectiveness as an initiative that takes advantage of the unique characteristics of the R8 area. In order for the "garden" to continue as a community activity for a long time, it is necessary to strengthen the supporters in the community and to spread the activity across generations. Recently, the council has held a "morning market" at the site of the "garden", and a system has been established whereby the council serves as the main body for administering the "garden". Although there are many issues to be addressed, the project is making progress as a community-wide activity.



A local supporter (left) gives advice to participants.

## Useful plants in Sudan <Part 6>

### Mesquite

The useful plant we look at this time is mesquite (*Prosopis juliflora*). We wrote about mesquite in the mini series "Various Arid Land Plants" in AAINews No. 73, and discussed its advantages and disadvantages. However in Sudan today, few people consider mesquite to be a "useful plant." Mesquite, native to South America, was originally introduced to Sudan in the 1970s, about half a century ago, as a useful plant for fixing sand dunes. With its vigorous reproductive power and rapid growth, it was expected to be a final resort in combating desertification. In that sense, mesquite was seen as a useful plant when it was introduced, but its reputation in Sudan has rapidly declined since then. Its strong reproductive ability has become a disadvantage, and it has become increasingly difficult to prevent its invasion and spread into fields and near roads, beyond the scope of human control. It has clearly become a target for "elimination" as a harmful weed, and in the mid-1990s, the Sudanese government implemented a large-scale weed control campaign in areas devoted to national irrigation schemes. Efforts have also been made to establish control techniques, but in order to remove mesquite completely, sufficient measures must be taken to prevent germination and regrowth. It requires uprooting with heavy machinery and spraying of chemicals, but there are still difficulties in terms of cost.

Generally, mesquite is disliked, but since 2011, we have been focusing on its usefulness and pursuing advanced use by farmers and rural women in Sudan, so we would like to briefly introduce some recent activities. Firstly, charcoal production is a method that has already spread widely at the farm level. The traditional style of charcoal burning is to pile up pruned mesquite trees, cover them with soil, and smoke them. There is a demand for charcoal for barbecues in neighboring Gulf Arab countries, and there are cases of exporting it. Another direct use is as firewood. The use of firewood as a cooking fuel has been steadily decreasing due to the



Mesquite charcoal burning

progress of gasification and electrification, but its use is being reconsidered due to the recent deterioration of the Sudanese economy. Furthermore, mesquite is a leguminous plant, and because of its high protein content, there is great potential for its development as compost or livestock feed, and efforts are being made to promote its use on a trial basis. Other activities that have been carried out so far include the use of mesquite as building material (wood) and as food by powdering the bean pods. In this way, it is possible to further promote the use of mesquite in agricultural production. However, it is important to take care to prevent livestock from grazing on it or the seeds from being dispersed by water currents, and to ensure a sufficient crushing process for use.

So how about going back to the starting point of mesquite's introduction, which was to combat desertification?

Unfortunately, there is no effective way to control mesquite as a useful tree,

and currently no systematic planting is being carried out in Sudan. However, a hint seems to be found in the orderly, upright/straight mesquite forest that we once encountered on the east bank of the Atbara River in Kassala State. The forest was grown by a German NGO, and the key to the technique is the combined use of "pruning" and "thinning." The optimum timing of operation and soil moisture may be involved, but the first mentioned techniques are thought to be the key to management. In this article, I have written about the use of mesquite, a "useful plant" that is not often discussed. In the future, we would like to continue practicing activities that aim for further low-cost and advanced utilization of mesquite at the farm level.



Seed dispersion by livestock feeding



Tree planting activities by NGO

## After completion of field assignments in Islamabad

### A sense of accomplishment through close cooperation

Since 2019, AAI has been engaged in a JICA technical cooperation project for the capacity development of agricultural extension services in Balochistan, Pakistan (the project). The project aimed to improve capacities of agricultural extension staff, known as Field Assistants (FAs) and Agricultural Officers (AOs) through training to enable them to disseminate appropriate techniques and knowledge to farmers. The project successfully completed nearly four years of work in February 2023.

The project's training programs for FAs and AOs included group sessions in Islamabad and Quetta, as well as farmer surveys and extension activities in their respective regions. However, Japanese experts were not allowed to enter the target area of Balochistan due to security restrictions. Therefore, implementation of training and monitoring of extension activities in Balochistan was remotely conducted through National Staff (NS) in close cooperation with Counterparts (CPs).

The project implementation began in March 2019, with remote training starting around July of that year. From March 2020 onwards, the country faced a series of unforeseen challenges, including the COVID-19 pandemic, a desert locust invasion, the refugee influx caused by political changes in Afghanistan, heavy summer rains and floods in 2022, and political unrest in Pakistan. In particular, during the COVID-19 pandemic, conventional face-to-face group trainings and extension activities were suspended for over a year. Given this situation, the project worked closely with CPs and NS through weekly online meetings and individual communication via social networking services to discuss operational matters. Each working group encountered many challenges that required quick and flexible responses, but these experiences contributed to the accumulated knowledge and experience of CPs, NS and Japanese experts. Despite facing many challenges, it was the result of close cooperation that enabled us to complete our field activities without any major problems. Finally, the last targeted group of training and extension activities was smoothly implemented, perhaps owing to the accumulation of a large number of different experiences.

In February 2023, during the final field assignment, the project conducted a follow-up workshop for the last training group, a project evaluation meeting and a Joint Coordination Committee meeting. At



**A scene of discussion of the results of project activities at the workshop**

the meetings, CPs expressed their willingness to continue their extension activities, making use of the techniques, skills and experience acquired through the project, as well as agricultural extension materials obtained. One CP expressed appreciation for the efforts of the project and added a comment that there have been many training courses for AOs in the past; however, this project focused on capacity development of FAs in each region, which was never done before and was very meaningful. After these meetings, the project held a ceremony to express our appreciation to researchers from the National Agricultural Research Centre in Islamabad, the Directorate of Agricultural Extension in Balochistan and the Agricultural Research Institute in Quetta for the support and contributions to the various activities conducted. CPs hosted a tree-planting ceremony in our honor to commemorate our work and pledged mutual prosperity in the future.

The project team also conducted interviews with each NS, expressed appreciation for their past work, and recalled memories and challenges we experienced together. They were all full of confidence and expressed their aspirations for the future. Despite facing various difficulties over the past four years, we felt a strong sense of "accomplishment" from working closely with the CPs and NS, and we are eager to continue our relationships with them as friends in the future.



**A group photo with participants, CP, and NS after the workshop**