

## Improvement of vegetable cultivation course: AAI's effort to link abroad experience and training in Japan <Part 6>

### Last part – Epilogue

The Tsukuba International Center's vegetable cultivation training course has a long history. And the AAI has been involved in the training for over 10 years including the running of country-focused group training courses. In recent years in particular, emphasis has been placed on small scale farmers and their livelihood improvement, as well as marketing. Another important theme has been capacity development of extension workers in order for them to effectively transfer technologies and information to farmers. This is also related to the fact that extension, training and marketing are seen as key in the international cooperation field.

In this climate, we have introduced in this series our training activities from the view point of applying our experience in developing countries to the training work in Japan, and also applying experience in the training work to our field-based work in developing countries. In this final part of the series, we would like to look back at the case studies introduced in the last four parts and examine various issues based on some points of view.

#### Strengthening extension capacity

Most of the participants who attend the vegetable cultivation technology training courses have experience in extension activities in one way or another. It is important for them to have a perception that training contents can be applied in their work after returning to their countries. To ensure this happens, our objective across the training courses is to improve participants' ability to think and make decisions. This is in particular done through introduction of concrete examples of extension projects, development of manuals for supporting implementation of extension activities, and teaching of data utilization methods. In addition, in order to ensure that participants themselves can use the new skills without aid and to make our training courses

as practical as possible, we have various special considerations and innovations as shown below.

#### View point of practical training

In our training courses, we put particular emphasis on practices with manual activities. For example, we task participants to analyze agricultural statistics, data and calculate crop water requirement, and we ask them to write down their opinions and ideas on cards and organize group discussions based on those. In addition, during the outdoor irrigation practices, participants touch soil samples and feel the differences of soil characteristics, and they measure irrigation water flow. Moreover, introduction of and experience in an information gathering method using five senses is also a unique aspect of our training courses.

#### Participants' activities after returning to home countries

After training, participants go back to their respective work in their home countries. At work, they will implement the action plan formulated at the end of training courses, but they sometimes face a variety of obstacles. For example, situations in their countries may be very different from those in Japan. There may be insufficient financial resources, materials and human resources. They may not be able to gain understanding and support from their bosses for their action plan implementation.

To deal with these problems and to implement action plans, in addition to technical skills, problem solving skills are required. Participants acquire these skills through their on-the-job experience. However, in addition to experience, it is probably necessary to have opportunities for training to improve their skills.

The following table summarizes the overview of lectures and practices, targets and relation with participants post-training activities discussed in this series.

Lecture and practice items	Overview of lectures and practices	Objectives and targets of training and links with participants' post-training actions
Local application and extension of useful technologies	Confirm and share abilities necessary for extension workers through CUDBAS*. Information collection method using five senses and body. Methods for developing extension manuals etc.	Improvement in participants' ability to think and make decisions. Deepen knowledge on farmer guidance appropriate for local context and on methods for developing of manuals and apply in actual extension work in countries.
Crop production and irrigation technologies	Lectures and practices on irrigation technologies that are essential for crop production increase. Exercise to estimate irrigation schedules, crop water requirement and water flow volume in irrigation channels.	Increase understanding on basic ideas on water requirement of different crops and watering timing that are necessary for irrigation planning and management. Increase foundational understanding on irrigation and ability to apply these in extension activities.
Data collection and application methods for extension	Lectures and practices on basic data utilization methods for extension, farming household survey methods for data collection, and creating questionnaires.	Understand regional characteristics through analysis of existing and newly collected data. Learn farming household survey methods and concrete examples of extension activities and link the understanding with increased effectiveness in extension activities.
Marketing method	Lectures and practices to introduce an overview of technical assistance project examples related to marketing, group work to classify and analyze using the 4P marketing tool.	Nurture ability to practice and apply knowledge through analysis of classification results using participants' own experience and knowledge, making proposals and suggestions for technical assistance project activities. Acquire ability to use practical sense on marketing and to apply it in future activities.

\*: CUDBAS means a Method of Curriculum Development Based on Vocational Ability Structure