< No. 95 > February 1, 2018

AAINews

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New Start at AAI

It was already 15 years ago, when I was wondering which path to take after having returned from my Japan Oversea Cooperation Volunteers (JOCV) assignment. My mentor Dr Kakubari of the Shizuoka University (forestry) introduced me to AAI. To an unexperienced man who had only willingness, AAI staff told me the importance of developing my own specialization which is the core of my work, and take my own decisions though listening to people with on-the-ground experience. Since then, I finished a master's course, and worked as a JICA junior expert, and entered into the field of international cooperation. I started visiting the AAI office from time to time, and AAI became my target and aspiration.

As I accumulated my work experience, while I felt motivated in particular with my field-based work, I often started wondering if Japan's technical cooperation is really needed by developing countries. I had opportunities to be involved in formulation and negotiation of technical cooperation projects in Ethiopia and Malawi, it took some time before reaching an agreement as the counterpart governments prefer to receive financial support to technical support. The situation must be different depending on countries and sectors. However, amongst numerous activities carried out by development assistance agencies and NGOs, I was acutely feeling that it was becoming more and more difficult for developing countries to clearly understand the significance and results of Japan's cooperation activities.

Cultivation of tobacco, which is a main cash crop in Malawi, tends to degrade soil

Concrete irrigation facilities are often used for laundry and bathing

I also became involved as a JICA long-term expert in implementation of the project. I worked in the West Kalimantan Province, supporting forest management within a national park. I witnessed first-hand rapid deforestation and oil palm plantation development. Traditionally, local people harvested non-timber forest products such as durians and bamboo shoots. However with oil palm plantation development, many transitioned from self-sufficient farmers to a plantation employee receiving income which now formed their livelihood. Some even abandoned their own farms. Although there were some people who complained that they lost their farmland without compensation, most people welcomed benefits from investments in oil palm plantations. However, a detailed field survey revealed economic disparity in a village between villagers who received income opportunities from oil palm and those who did not. The picture became not as rosy as it first looked. In the short run, many local people could obtain cash income which they had never had in the past. However, they lost forest resources and their own farms which bring a variety of benefit to them in the long run. They also lost opportunities for future generations to utilize them. Was it really a good choice for the local people? I became very doubtful. Technologies and knowledge are important. But through technical cooperation activities, particularly in the field of forest and environmental conservation, we need to support more holistic capacity development of people, so that they can make appropriate decisions on the way of life and future they aspire to.

As is the case in many countries, in Indonesia, worsening relationships between local people and forest administration and law enforcers trying to control illegal logging is a big challenge. We therefore provided training targeting national park staff aiming to increase facilitation skills for partnership building with community, using support of JICA short-term experts. As several national park staff visited villages patiently and continued dialogue with villagers, they were able to gradually build mutual trust, and local people started taking initiatives for livelihood improvement and environmental conservation. Local NGOs having trouble with the hard-line attitude of the national park administration expressed their gratitude to us for changing awareness and attitudes of the park staff. Local actor's perception of our project changed from "outsider" to a partner towards improving national parks, resulting in increased collaboration among everybody involved. It became clear that being able to work within the government with the government counterparts is a strength of Japan's technical cooperation.

A family temporarily staying inside the forest during the harvest season of durian which brings cash income

Oil palm planted in a wetland which is not originally suited for the crop

I am entering the new era of my life, joining AAI, which mainly focuses on the agricultural field, as a forest and nature conservation specialist. Working as part of the AAI team, it will enable me to continue to pursue effective technical cooperation that is appropriate for local situations and people's needs. I would like to express my gratitude for the 15-year relationship I have had with AAI and am determined to do my best with the support of colleagues and friends.

(By Yoshikura, October 2016)

Improvement of vegetable cultivation course:
AAI's effort to link abroad experience and training in Japan <Part 5>

Marketing method

Since 2013, we introduced marketing methods as part of the vegetable cultivation course module. We have provided lectures and practices so that participants attain understanding of introductory overview and techniques for using the method. In this training course, participants visiting Japan learn about examples of market, distribution and sales in Japan, through lectures, visits and practices on marketing.

Marketing methods encompass a variety of elements. It starts with understanding market needs. This also includes understanding of distribution and sales systems. From the theoretical part to practical implementation, the scope of marketing learning is very wide.

One effective method when capacity development on marketing is required within a technical cooperation project is the on-the-job training (OJT) method. Based on the unique context and circumstances of target countries and regions, lecturers can work with participants on concrete work and can transfer knowledge and skills to participants while doing so.

In this case, there is no set procedure. By comprehensively reading and understanding the situation at a certain time, they would collectively explore solutions eagerly and creatively. For participants, by experiencing with lecturers the model and unique process on the ground, they are expected to be able to attain patterns of thinking on marketing.

Still, in the lectures and practices in this course, it is difficult to cover everything related to the marketing field. It is not possible to use the OJT methods in the training courses unlike in technical cooperation projects in the field. What we can do is to use our own experience from technical cooperation projects as examples. We offer opportunities for participants to "simulate" the experience to find out what they would do in particular situations.

This method is rather easy. Firstly, we introduced marketing examples from Palestine and Sudan using slides. Then I asked participants to work in groups, and classify various marketing activity elements according to the marketing mix of 4Ps, as well as 4Cs which correspond to 4Ps, as listed in the table below.

Table: 4C/4P Marketing mix

4P – Seller's viewpoint	4C – Client's viewpoint
Product	**C**ustomer value
Price	**C**ost
Place	**C**onvenience
Promotion	**C**ommunication

Once each group classifies and sorts the various activity elements, they then review the whole elements and analyze and evaluate them. In addition, we ask participants to suggest their own ideas on what they would do in various situations. In this way, we are aiming to create the sense of independently working on a particular project in the participants' minds.

Classifying elements into 4P / 4C by using cards

After the practice, each group is requested to present a summary of their collective opinions. They are expected to discuss the basis for their decision on which activity elements correspond to 4P or 4C as well as their own opinions. We are hoping that they will gain the ability to scan the wide-ranging marketing activities in a holistic manner to enable them to implement marketing activities in a balanced way.

Group presentation and discussion by participants

Since we started these lectures and practices, we have accumulated experience with participants every year, having gone through trial and error. Marketing sense is difficult to grasp in its entirety with theoretical and fragmented knowledge. We are working on constantly improving the training so that it can trigger participants' mastering of practical sense for effective marketing.

Market-oriented agriculture in Palestine <Part 5>

Production and use of compost silage

In our project target areas, many livestock farmers are hoping to see a decrease in their cost for fodder for animals, as the fodder expense accounts for a very high percentage of their entire production cost. On the other hand, many precious organic materials such as crop residues and date palm leaves are left unutilized in their farmland. Given this situation, our project decided to explore the introduction of silage production facilities to reduce fodder cost and to consider impact on livestock productivity such as milk production.

We started with organizing a field day in target areas aiming to promote understanding of the effect of silage and to provide silage production technology training. We introduced two types of technologies – the bunker type and the barrel type. We also explained applicable programs and the production cost of silage and its profitability. For enthusiastic farmer groups, we demonstrated experimentation on feeding of silage fodder to livestock. The result of the experimentation was that farmers could reduce fodder costs and at the same time increase milk production. These positive experimentation results were introduced in various activities to support silage production, and farmers were influenced to place more efforts into silage production.

Silage production field day

Farmers in the target areas could confirm the positive effect of silage through the above activities, and this led to active silage production in the areas. However, methods of silage utilization varied between farmers, which required another verification test to establish the optimal feeding system using silage. This verification test was kept simple so that it can be done by the farmers themselves. It was based on a very simplified method of replacing the hay part of the feeding system with silage, and the data was collected by farmers. As a result, it became clear that by replacing hay with silage, fodder cost can be reduced by 45-50 %.

In some areas, it is often observed that machinery provided by donors is left unattended once it gets broken. This reminds us that it is important to nurture a sense of ownership over any machinery and facility. Therefore, through our project, we promoted collective use of silage production machinery using a rental system, in order to establish a sustainable maintenance and management regime. We procured machinery with particular specs based on pros and cons of existing types of machinery and the results of field surveys of actual use of different types of equipment by farmers. We provided a set of machinery comprising a harvester, compressor and mini-trolley as shown in photos below. The machinery is owned by the Department of Agriculture, and farmer groups that signed an agreement with the Department of Agriculture could use it. Use of the machinery is coordinated by agricultural extension staff, and storage, maintenance and management of the machinery is in principle done by farmer groups. Maintenance and management cost is borne by user fees that are collected.

Harvester Compressor Mini trolley

Machinery set for silage production

Crushing date palm leaves

The target areas were major date palm production areas and every year a large quantity of palm leaves are pruned. Despite the fact that these leaves are precious organic resources, most of them are currently burned and disposed of. If they can be effectively pulverized, they can be utilized as raw materials for compost and silage. Therefore, in this project, we introduced a Japanese crusher that can smash hard materials such as bamboos and wood. This machine proved to be very effective in pulverizing date palm leaves. Also for this crusher, sustainable maintenance and management is an extremely important challenge. We hope that many farmers will realize the importance of appropriate maintenance and management of machinery through this project. Furthermore, we hope that the farmers will be able to effectively utilize local resources and improve their livelihood and income.

Mini series

Let's think about seed quality <Part 1>

Introduction: Why is the quality of seeds in developing countries low?

Quality of seeds in Japanese market is extremely high. Compared with other countries, the quality required in the Japanese market is severe - probably the world's most. A Japanese farmer said that he expected the germination rate of seeds to be 102%. It means that a packet of 100 seeds usually contains at least 105 seeds, so he expects to obtain unless 102 seedlings from the bag, one would not call them good seeds. It was a half joke but half serious. One reason for this demand for extremely high quality is vegetable production in Japan is highly specialized nature as well as labor saving strategies and mechanization. At the same time, it maybe also because of the Japanese characteristics to seek efficiency and quality, hating waste.

On the other hand, in developing countries, quality of seeds is always mentioned as a challenge in agricultural production. Often, low quality of seeds is blamed for low yields. However when hearing carefully details of the problem surrounding the low yield, the issue lies with cultivation management techniques. When we visit their plot after hearing the complaint that "because of poor quality of seeds, germination rate is low," we often witness other factors in the farm which prevent good germination rates, including damping off problems. In addition, when we ask what exactly is the problem with the seed quality, answers are often related to varietal characteristics rather than seed quality, such as "yields are low" or "we need disease resistance". In the general sense, varietal characteristics can be included in seed quality. However from the technical perspective, they should be considered separately. In many countries and regions, we hear rumors about seed producers mixing different types of seeds in a package or a different kind of seed is packed with a wrong label.

That is, although seeds are an essential material for plant production, they are often receiving unfair review due to the fact that it is hard to ascertain quality from the looks and because of simple misunderstandings. At the same time, seeds receive over-expectation by farmers believing that good seeds lead to good yields.

In developing countries, it is true that seed quality tends to be low. There are several possible reasons for this. One reason is that when seeds are produced in their own countries, basic cultivation management is often lacking. Mother plants have to be very healthy to obtain healthy seeds. Especially for leaf and root vegetable, and fruit vegetables which harvested immature fruits, as it requires a longer cultivation period than fresh vegetable production, extra care for maintaining plant vigor and pest and disease management is needed. However, for eggplant, cucumber and bitter gourd, we witnessed cases where farmers were harvesting fresh fruits from mother plants that also produce seeds. This will naturally lower seed productivity and their quality, because nutrients that should be used for producing high quality seeds are also used for fresh production. Also in order to produce seeds with high genetic purity, it is essential to carefully select mother plants and to eliminate off-type plants. However, this was rarely done properly due to lack of human resources with the knowledge and ability to identify off-type plants. We also witnessed cases whereby insufficient measures were taken where there was an outbreak of seed-borne disease in seed production fields.

After seed harvest, in some cases, the storage environment was inadequate, or no consideration for managing dew condensation that is formed when seeds are taken out of a low temperature storage. In other instances, cleaning of seed processing machine was inadequate. In developing countries with limited materials, they do not necessarily have adequate packaging materials.

So should they import seeds from developed countries? That is not necessarily so. This is because interests of export companies that may be holding low quality seed stocks which they hardly sell, and interests of import companies that would like to purchase seeds cheaply even if they are not the best quality, may often match. This may be natural because commercial business is based on gauging the balance between quality and price. However, this is one reason why cheap low quality seeds get distributed in developing countries' markets.

Furthermore, even if sufficient measures are taken to ensure seed quality on the part of the supplier, if seeds are displayed at retailers in an inadequate condition for a long period of time, or if packages are opened for loose sell, the risk of seed quality deterioration and mixing of different types becomes high.

As shown above there are many risks for seed quality loss. In order to ensure seed quality, there is a need for a standardized quality management through the entire seed value chain, from production sites to retailers. However, in developing countries, it is not easy to ensure the enabling conditions. As a result, many farmers are obliged to produce their crops using low quality seeds.

Given the above, in this series, we would like to introduce stories from the field and further examine this issue, focusing on our effort related to seed quality within our support for agricultural production.

Table: Criteria of seed quality

(1) Maintaining characteristics peculiar to variety
(2) Free from pests and diseases
(3) High genetic and physical purity
(4) High germination ability and vigor
(5) Retention of specific appearance of the variety, with full mature, and good drying and cleaning

Adapted from "Shubyo Dokuhon"
(Japan Seed Trade Association – JASTA)