

Part 1 Introduction

Today, the significance of "human resource development" in developing countries is widely recognized not only in the field of international cooperation but also in the fields of education and industrial development. In the educational field, an increasing number of students from developing countries is being welcomed now in developed countries as a form of intellectual international contribution. In the industrial field, efforts have been made for local human resource development in developing countries in order to ensure proper quality management of overseas manufacturing, which is consequently contributing to improved technical capacity and industrial promotion. "Training" in international cooperation is nothing new, but its importance and necessity are being reaffirmed, and various human resource development activities are being actively carried out these days. Those include the acceptance of technical trainees in Japan, technical cooperation for counterpart entities by OJT (On the Job Training) in the context of development studies or technical cooperation projects, training programmes in a third country, study programmes for young people (to come and stay in Japan) and projects in partnership with NGOs or local governments in developing countries. In addition South-South cooperation is being encouraged by sending those engineers / technicians who received training in Japan to neighboring countries that enjoy similar regional conditions (nature, culture and language) to transfer their techniques acquired in Japan.

What is behind this trend is not only the concept of "nation building through people building", which is a fundamental principle of international cooperation, but also the strategic expectation that training projects will enable more flexible and directly effective assistance. It is also expected that training in Japan will allow the trainees not only to acquire the most updated techniques and new ways of thinking, but also bring their experiences in Japan back to their home countries. Moreover, it is hoped that human interaction through training programmes will help build up friendship between countries and contribute to peace building without resorting to force. Trainees learn various techniques applicable in their home countries and improve their individual skills through the training programmes. On the other hand, those who provide training are enabled to look at their own environment objectively by learning its differences from other countries/regions. They also learn a lot about different lifestyles, culture and traditional techniques from their trainees. Such mutual learning and understanding is highly important for sustainable international cooperation.

In reality, however, there are many cases where training programmes are structured in such a way that they are only convenient for the organizers and do not meet the needs of the trainees. Furthermore, sometimes the contents of the training do not match the background or capacity/ability of the trainees and fail to produce meaningful results. Needless to say, in order to conduct effective training programmes the contents should match the needs of the trainees. To ensure that this occurs, appropriate needs assessments and flexible programme planning and implementation is necessary. While the direct purpose of training might be put as "capacity building" of each participant, "institutional building" of the organizations they belong to is also an important task, to ensure that they can make full use of their newly acquired techniques and knowledge in their actual professional context.

Human resource development has been a major theme for AAI. In this respect we have been involved in various activities such as training programmes at the JICA Tsukuba International Centre, planning and implementation of training programmes in the context of development studies, agricultural training programmes by experts, technical exchange programmes, and third-country training programmes. In this new series we would like to report on the human resource development activities we have experienced thus far, share our joys and discontent, and discuss some managerial problems we have encountered. We would also like to make some suggestions for future training programmes and reflect upon their meaning.



Lecture for trainees from southern Africa at the JICA Tsukuba International Centre



Interview with a progressive farmer (as part of a third-country training programme in Morocco)

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Part 2 Training work at the Tsukuba International Center

As introduced in AAI News Vol. 37 and 39, AAI has been putting a lot of effort into training activities, in order to utilize experience gained in developing countries into training works and at the same time to utilize experience in training into field works in developing countries. At the Tsukuba International Center, AAI has conducted courses on vegetable cultivation for Tajikistan and southern African countries. The objective of these courses is to nurture capacity building of human resources that will contribute to agricultural promotion in the particular country or region through technical training on vegetable cultivation for researchers and technicians who have been involved in agriculture research and extension activities. The main content is a series of technical training sessions ranging from formulation of plans for cultivation experimentation to practical training such as cultivation techniques, growth observation and compiling results of the experimentation. The curriculum is designed so that participants can absorb a wide range of technologies that can be applied in their own countries, including the acquirement of basic knowledge through lectures and field visits to local farms. In addition to teaching, it is also an important responsibility for us to select participants, to create training curricula, and to arrange various lectures, practical sessions and field visits. Both courses lasted for 4-5 months, however were conducted in different seasons. This meant that it was necessary to carefully consider our choices of vegetables and field visit sites.

One problem we faced was that participants had different levels of basic knowledge and language proficiency, and some would have problems fully understanding lectures. We conducted a benchmark test at the beginning of the courses in order to grasp individual levels of ability. The test results were communicated to the trainees at an early stage so that they would know their own level in order for them to develop individual objectives. What we felt strongly through the training was that trainers need to continuously study harder than the trainees. By doing so, trainees will feel their teacher's sense of passion. The sense of achievement on the part of the trainees is the same as that felt by the trainers; i.e. they are two sides of the same coin.

From this year, one of the evaluation criteria for the course is to what extent technologies that are applicable to participants' countries are taught. Practical work is conducted using materials prepared by trainers. However, it is necessary for trainees to acquire knowledge and skills enabling them to apply the newly gained technologies in their own countries, using materials obtainable in their countries. For instance, how would one judge the physical and chemical properties of soil that is obtainable for raising seedlings by soil block? How would one extract effective micro-organisms in order to create fermented fertilizers? How would one obtain nitrogen sources for making compost alternatives to chemical fertilizers and obtain materials other than straw? Mulching material can be grass, straw, leaves of bananas and dates instead of plastic sheets. Can we also use these materials for preventing drought, weeds and top soil run off and for controlling ground temperature? In this way it is important to tell the trainees about our experience in different countries and support their eagerness when they are trying to think of ways of applying skills and technologies they acquire in the course.

Our training session that fully utilizes experiments and practical work was very well received by the participants. In particular, they valued lectures and practical components at local farms, saying that they had a very unique opportunity to experience something they cannot do in their own countries. However, it tends to be time consuming to try to harness trainees' understanding through practical work as the core of the training curriculum. It is important to cater for participants with varied levels of experience and knowledge and to foster mutual understanding between trainers and trainees. Moreover, in order to conduct training that relates to different situations in the trainees' countries it is necessary for trainers to have sufficient techniques on hand to draw the connections and for the training session to have enough time. It may be beneficial to establish a "gathering hole" where trainees can go freely to meet trainers to discuss issues and concerns. This would increase the amount of time trainees and trainers can have to interact and help them foster their relationships. AAI is determined to continue offering high quality training, emphasizing technology that can be applied to developing countries, and valuing good relationships with each trainee.



Visit to grafting workshop



Learning different tomato cultivars



Visiting an organic farm

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Part 3: Multiplying the training effects through follow-up activities

For the past four years AAI, commissioned by the JICA Tsukuba International Centre, has been undertaking training courses on vegetable cultivation for Tajikistan and southern African countries. Other than crop cultivation, trainings on farm machineries, irrigation and drainage etc. are conducted at this Centre for a number of trainees who wish to contribute to the development of the agricultural sector in their respective countries. The goal of such training is for the trainees to be able to make use of the techniques they learn in Japan and apply them to improve the livelihood of the farmers in their own countries, and in the long run to make a positive contribution to the agricultural development of the country or the region they come from.

The country focused vegetable cultivation course for Tajikistan, carried out over several years by AAI, has been completed last year. Then, in order to evaluate the activities of the ex-trainees and identify the future training needs, a follow-up survey was conducted and our staff also participated in the survey to Tajikistan as a member of the team. Most of the ex-trainees had been chosen from different sub-sectors/occupations. They were researchers, extension workers and farmers, and they were making good use of knowledge and techniques gained from the training course in Japan. For instance, by applying the techniques learned during the training in potato production, they reduced the amount of potato tuber used from 5 tons/ha to 3 tons/ha, they were removing sprouts, making pot seedlings, and creating fodder from the hay which they used to throw away. Also they were using materials and videotapes obtained in Japan to teach techniques such as grafting to the local people, and such efforts of them were rather admirable. On the other hand, however, we found various problems as well. For example equipment brought back from Japan is not being used properly. Or, because it is difficult for them to obtain appropriate equipment locally, they were being unable to practice the techniques they had learned in Japan. Also, they are not able to produce good translations and therefore they were not being able to make full use of the training hand-outs which are mostly written in English. Moreover, the problems we witnessed were not only in the vegetable cultivation sub-sector but also in fruit production and extension activities.

There is no doubt that the importance of training as part of capacity development activities in the field of international co-operation will increase from now on. Also it is very meaningful to promote good understanding about Japan among the people from many countries through the training activities to make friends for Japan. With this background it is important to continue technical assistance by providing training courses taking into account a good consideration of each country's needs and conditions. Moreover, since the trainees are selected as representatives of their respective countries, it is important to let them realize and bear in mind that they are the main actors in the agricultural development of their own countries.

Ex-trainees are making good efforts to contribute to the agricultural development of their home region while struggling with various problems and challenges. Through the follow-up survey of this time, we strongly felt the need to provide a certain form of after care to deal with their problems. There may be a need to establish a follow-up support system which is linked with the actual training conducted in Japan, in order to maximize the effect of the training courses back in their respective countries. For instance, as a scheme to encourage trainees, a support system for the implementation of good action plans may be an idea. Also probably it should be possible to link the follow-up support activities with the grassroots technical assistance. If feedback can be obtained from the ex-trainees regarding their problems and challenges after their return and their views can be incorporated into the next training tasks, it will be a valuable input to improve the training courses to provide better information and techniques for the next set of trainees. AAI now considers follow-up support for talented trainees as part of our own grassroots co-operation activities. For that purpose we are trying to keep feeding the ex-trainees with information, exchange opinions and provide technical support upon request from them. We believe that, through such thorough follow-up activities, the effects of the training courses in Japan can be maximized.



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Part 4: Counterpart Training for Development Study and Expert Dispatch Program

Technical training courses organized by JICA in Japan can be divided into two categories; group training and individual training. Thus far we have reported on the former type of training mainly held at the JICA Tsukuba International Center. One type of individual training is so-called ‘counterpart training’, given to the staff of JICA’s counterparts in development study or expert dispatch. A technical training program is drawn up and carried out according to the specific field related to an on-going development study or expert dispatch, but it is also expected as an important outcome to give the trainees a good understanding about Japan through this training. After the trainees return home, they are expected to collaborate with the JICA team and experts to implement the project.

Since 1992 AAI has carried out the counterpart trainings that are shown in the following table. In the past we normally took charge of certain parts of an entire training (e.g., agricultural extension work and GIS), but in the recent development study in Oman we were involved in the formulation of the training program itself.

Development Study/Expert Dispatch	Training Period /No. of Trainees	Purpose of The Training	Training Contents
Restoration, Conservation and Management of Mangrove in The Sultanate of Oman (Development Study)	Twice, starting from March 2003 / Total 4 persons	Conservation of wetland, resource management, GIS, forest conservation	Introduction to civil activities for wetland conservation and restoration; aquatic resources management; fish farming; information gathering regarding artificial fish reef; introduction to GIS techniques
Small scale agricultural and rural development program along the Mekong River in Laos (Development Study)	February 2000 / 1 person	Agricultural extension	Introduction to agricultural extension at the Agricultural Improvement and Extension Center of Yokosuka, Miura Area; introduction to various activities of farmers and agricultural co-operatives
Agricultural Development Program in Nejd Region, Oman (Expert Dispatch)	August 1998 / 1 person	Water and soil management	Introduction to GIS techniques and demonstration of their application; visit to farms and institutes of Shizuoka University, visit to the Tottori University Arid Area Research Center and TRT
Afforestation technique development in acid sulfate soils in the Mekong Delta, Vietnam (Expert Dispatch)	August 1998 / 1 person	Forestry research training, forest soil, afforestation	Introduction to GIS techniques; introduction and demonstration of plantation techniques; visit to local greening projects; practical training in seedling and plant cultivation
Agricultural extension improvement program in Syria (Expert Dispatch)	Twice since May 1994 / Total 2 persons	Agricultural extension	Introduction to extension activities at Agricultural Improvement and Extension Center; introduction to village revitalization activities; introduction to the activities of surrounding farms and agricultural co-operatives
Irrigation development program in the Rokan River in Indonesia (Development Study)	August 1992 / 1 person	Irrigation facilities	Visit to water intake and conveyance facilities and irrigation facilities in the Ooigawa River basin in Shizuoka Prefecture; visit to various activities by MAFF Local Agricultural Bureaus

From the viewpoint of the development study member or expert, it is very important that the counterparts get motivation to work on their project through this sort of training. Also, we feel it is very meaningful that the training can complement the task of technical transfer which may end up being incomplete if done only during the project implementation in the host country. In most cases those who participate in a counterpart training in Japan go home with a good impression of this country. Then, those trainees would play a significant role in ‘activating’ the development study work or expert dispatch activities back in their own countries. On the other hand, in the process of planning and arranging the training programs, the organizers can establish new networking relationships with various institutes that the trainees would visit for their study, and such networking often proves to be useful later for other training courses or for expanding the opportunities for further technical exchange. We also feel that with the counterparts who went through the training in Japan we can build up better teamwork than with those who did not.

Therefore, the counterpart training has positive side effects elsewhere in addition to the obvious learning benefit for the trainees themselves. In practice we have been able to carry out field activities smoothly in Syria and Tanzania as a result of teaming up with the local counterparts who had completed training courses at Tsukuba International Center. Therefore, AAI considers the counterpart training as a crucial pillar for exchanging various techniques, gathering information and expanding communication/interaction, and we have been making efforts to understand local training needs and plan appropriate training programs. What is most important in this process is communication between the local counterpart and the Japanese staff who will plan and implement the training programs. Often official papers do not convey the real training needs in detail, so we try to communicate additional requests which do not appear in such documents to the training organizer. While in Japan we not only carry out the training as our job, but also we organize recreational activities and have interaction in daily life (such as going shopping together), so that the trainees can enjoy the training and feel at ease. We shall continue these efforts to realize effective and meaningful training courses.

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Part5: Acquiring agricultural technologies through the Third Country Training and the Technical Exchange Programs

As a scheme of the training program, JICA has overseas training programs. This type of training is organized by those who have been trained within Japanese technical cooperation programs in developing countries, or by organizations that have benefited from Japanese assistance. The training targets people in their countries (training on site) and from neighboring nations (third country training). JICA also has a technical exchange program, which is a type of training through visiting and learning about similar activities in neighboring countries. The advantage of these types of training is that the number of trainees can be maximized and that they can learn in the similar therefore comfortable environment in terms of language, culture and climate to their own homes.

As part of expert dispatch scheme in Syria, we organized a technical exchange program in neighboring Turkey, visiting an experimental farm to which JICA was rendering technical support. Through this project, our counterparts in Syria had an opportunity to see at first hand what a JICA's project type of technical cooperation entails. Simultaneously, they could learn various cultivation methods experimented within the farm, as well as witness agricultural extension activities conducted by the Turkish Government. Because of the similar climate in the two countries, there were many target crops that are common. It was also impressive that there were heated discussions about the cultivation of various fruits and vegetables.

In the Master Plan Study in Mauritania we dispatched our counterparts to neighboring Morocco. The counterpart trainees visited arid agricultural areas that spread to the south of the Atlas Mountains, and learned about irrigated vegetable and grain cultivation in the areas. They also collected information on the current situation regarding insect damage to date palms and the measures taken to combat the problem, which was also a major concern in Mauritania. Furthermore, the participants exchanged information with the local Moroccan NGO that had been assisting oasis development in Mauritania. This NGO had been transferring skills and technologies of fruit and vegetable cultivation and bread making, and our exchange project had materialized in collaboration with this NGO. In addition to the training benefits, counterpart trainees could obtain a number of technical documents written in French, their common official language.



Visiting experimental farm



Exchanging information at the farm

Japan has been offering technical and economic assistance to many developing countries. However, the natural and social environments of those countries are often very different from those in Japan. Training activities in Japan are very suited for learning cultivation techniques using special machinery and materials, for exposing trainees to various experimental research activities, and for learning about organized activities such as agricultural cooperatives. In the field of experimental cultivation, however, the climatic difference often makes it difficult to plan training curricula which are applicable to the environment of the trainees' own countries. Training on site can be very effective as training activities take place in similar environmental conditions as the trainees' home countries. It has an added advantage in that it is easier for trainees to fit into the society and living environment during training, as they are in a country with a similar language and environment.

We would like to make the following suggestions in order to improve third country training and technical exchange programs outside Japan. Facilities in developing countries that are established/run with Japanese Government's cooperation should be better utilized for many different purposes. Use of such facilities for training would not only nurture human resources in developing countries, but also promote exchange between the people in the country and Japanese technical experts who are working abroad. This would provide opportunities for exchanging opinions and technologies/skills. Furthermore, it should be possible for such facilities to host Japanese Overseas Cooperation Volunteers, NGO technicians and young researchers from Japan, as a means of nurturing future talents in the international cooperation field, and include joint projects between these Japanese researchers and technicians and trainees. This kind of training modality, technical assistance and exchange activity would be well understood by many as Japan's peaceful and tangible contribution to the developing world, at the same time fostering friendship between Japan and the rest of the world.

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Epilogue: Challenges of Training Activities and Future Directions

In this, the last report of this series, we would like to sum up lessons we have learned through our past training activities, as well as offer our suggestions for future activities. In this series we have discussed some cases of training that we have been involved in. The expected outcomes and challenges of these cases can be summarized as below.

Training type	Expected outcomes/benefits	Main challenges
In-country training (cases at the Tsukuba International Centre)	<ul style="list-style-type: none"> - Improved knowledge and skills through lectures, practical work and field visits - Acceptance of many trainees - Promotion of Japanese techniques and cultural understanding - Active interaction among trainees 	<ul style="list-style-type: none"> - Matching the training contents with trainees' expertise and capability - Further consideration of actual situations in trainees' home countries - Gaps in pre-acquired knowledge and language skills among trainees - Limitations due to climate and seasonal changes (e.g. for vegetable cultivation training)
C/P training (cases of C/P training as part of development study and expert dispatch)	<ul style="list-style-type: none"> - Possibility of judging the training needs properly through information and requests from experts - Improvement of techniques as a result of technology transfer and complementary training - Positive contribution to on-going projects 	<ul style="list-style-type: none"> - Short training periods - Consequently, training schedule tends to be tight and intensive
Third country training / technology exchange projects	<ul style="list-style-type: none"> - Better possibility of making full use of the lessons from the training in similar environments - Possible to obtain most updated information from the field - When the "third country" is a neighbouring state where the languages are shared, communication tends to be easier 	<ul style="list-style-type: none"> - Sometimes difficult negotiation with host countries prior to training - Training themes may be limited
Common to all the above training	<ul style="list-style-type: none"> - Spreading of activities by trainees back home - Personal interaction between trainers and trainees 	<ul style="list-style-type: none"> - Effective follow-up of training projects - Local support for trainees back home - Collaboration between training and other schemes

Selection of trainees, i.e. the very 'entrance' to the training process, is one of the most important things in considering improvement of training activities. In order to realize effective training, mismatching of trainees with training contents should be avoided. For this purpose, we (organizers of training) need to be actively involved in the process of trainee selection. It would be ideal if trainers themselves can travel to interview applicants / candidates, but in reality that is rather difficult. Instead, if somebody who is in the country and knows both the training contents and (the competency and expertise of) candidates could be involved in the selection process. This would help select appropriate trainees from there. Conducting benchmark tests to determine the candidates' competency, purposes and needs for training, or job report (or country report) drafting tests might be effective in selecting trainees. It is also necessary for the host country / organization to screen the candidates who are selected by their home countries rather than accept them without questioning.

Regarding the training contents, so far Japanese techniques and case studies have been the main materials for training. This cannot be helped if training is conducted in Japan. Needless to say, the organizers and trainers know that it is important to teach techniques which the trainees can make most of in their respective countries, and they (we) have been making such efforts. Still, there are cases where what was learned in Japan could not be applied in trainees' home countries due to the large gap between Japan and their countries in various respects, or due to the socio-economic conditions in their countries. To alleviate this problem, it is necessary for trainees to be able to determine whether the techniques they are learning are really applicable back in their own countries. Also, trainees should be able to build up specific follow-up activities which would be needed to apply and extend the lessons from training in the field. For this purpose, it might be useful to have a sort of excursion to give trainees a chance to observe how ex-trainees are making use of techniques learned from the training back in their countries, or to conduct some complementary training in a third country with similar environmental and social conditions. Also, it might be possible to invite ex-trainees as lecturers during the training to share their post-training experience with the trainees.

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(Continued from P.2)

Needless to say, the main purpose of training is human resource development, by providing skills and knowledge needed for certain activities. In the case of developing countries, however, provision of new skills and knowledge alone is often not enough. Also the importance is how trainees make use of what they learned from the training back home, or how and what sort of new development projects they will be able to form afterwards. In other words, in addition to skills and knowledge, it is important to monitor what can actually be started on the ground as a consequence of the training, and also to provide support if and as necessary in order to realize that. Therefore, development training should play a role not only as a place to provide skills and knowledge for trainees, but also as a sort of catalyst to promote development activities in the trainees' home countries. For instance, we may expect to see some new projects coming up in trainees' countries making use of lessons from the training at the Tsukuba International Center. We could also modify our training programmes so as to take into account the potential project activities to be started in the trainees' home countries upon completion of the training. We should put more effort to consider and realize such active application of training activities in the future.

AAI's New Management Structure and Homepage

AAI celebrates its 20th anniversary on 14th December 2004. For the past two decades AAI has been working mostly in arid areas of the Middle East and Africa, providing technical assistance for developing countries in the fields of agriculture, forestry, rural development, regional development planning and environmental conservation. We are very grateful to those who have been supporting and encouraging our activities.

On this occasion, AAI will start afresh with a new management structure, which has been adopted at the shareholders' meeting and executive meeting this August as below:

Representative Director:	Hiroyasu Onuma
Managing Director:	Yoshihisa Zaitso
Managing Director:	Akira Koto
Auditor:	Nobuko Yonekura

Our recent news includes our participation in the Master Plan Study on Restoration, Conservation and Management of Mangrove in the Sultanate of Oman. In Syria we have long been involved in water saving and irrigation projects. Based on this experience we are participating in development project identification activities in the same area in Pakistan and Tajikistan. Furthermore we have put lots of effort into training activities. We participated in the training courses in the Tsukuba International Center such as Country focused group training course on vegetable cultivation for the republic of Tajikistan and Regional focused group training course on vegetable and upland crops cultivation techniques for southern African countries. In addition we carried out lectures on animal fodder production and utilization techniques at the National Livestock Breeding Center. Upon request we have delivered lectures in universities in Japan on arid land agriculture and resource management in order to introduce our activities and to nurture new young technicians who will shoulder the future responsibility for overseas technical assistance.

Also we have established a new homepage, in which you can read the past issues of AAI News from its first issue in 1995. The address is as below. Please have a look.

<http://www.koushu.co.jp>