

AAINews

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Report from a Training Course in Tsukuba for Southern African Countries

From May 10 to 15 in 2004, the seven trainees from six countries attending the Special Course on Vegetable Cultivation Techniques for the Southern African Region went on a study trip to Kyushu. This trip was of course an important part of the course, but at the same time it was a fun program for the trainees being away from their daily routine in Tsukuba. They had been participating in lectures and practical work since March 2, 2004. During this trip, trainees visited the following locations:

Teruha Otsuribashi (suspension bridge) in Aya Town, Miyazaki Prefecture: Our bus went along the green river side in the Laurel Forest Nature Park in Aya Town to the Teruha Suspension Bridge. On the bus, our staff member explained the fact that trees such as oak, chinquapin and camphor compete to grow and form ecosystem of natural laurel forest -. A participant from Namibia said "This is heavenly!" as she enjoyed the beautiful view of the gorge. At the "country report" session held at the beginning of this course, she introduced her country with photos of uninterrupted desert. She must have been very impressed by the green broadleaved woodland, comparing it with her dry home country.



Organic Farm in Aya Town: Aya Town is located in the center of Miyazaki Prefecture. We visited organic farmers here. In 1985, Aya Town formulated an ordinance regarding the "Promotion of Natural Ecosystem Agriculture". The town has been actively promoting organic farming around the Aya Town Organic Farming Development Center. (Refer to AAI News Vol. 33.) The trainees' interest in organic farming grew as they met with organic farmers for the first time. This course includes some practical work related to organic farming such as compost, bokashi (fermented organic fertilizer), and carbonized rice husks. It is necessary to further refine the way we can integrate organic farming in the training course curriculum. However, we must ensure that trainees will have the right understanding that organic farming in Japan is still a very minor part of agriculture here.

Cabbage cultivation in Namino Village, Kumamoto Prefecture: We visited Mr. S, a cabbage farmer of Namino Village who received an award from the Ministry of Agriculture, Forestry and Fisheries, for his excellent running of his production activities. Mr. S and his wife work on their 3 ha of field. They deal with all nursery management and quality control of the crops after planting. For labor-intensive work such as planting and harvesting, they rely on laborers other than their family members. Mr. S taught the trainees that the nursing phase is the most important part of farming. He answered many questions from the trainees, stressing the need for eliminating off-type seedlings and planting uniform seedlings in the main field. In order to do this, he explained that it is necessary to observe seedlings extremely carefully during the nursing period. He explained, using actual seedlings in the nursery, and pointed out the different colors and shapes of seedlings. His explanation has made the trainees realize the meaning of "nursing of seedlings takes you half way to successful cultivation".



Potato cultivation in Aino Town in Nagasaki Prefecture: Here we had a meeting with young successors of farming. We learned about the existence of young people who are positively trying to protect their areas, and about the work of the Nagasaki Experiment Station and extension center which work in collaboration with the young generation. Why are there many young successors here, while we always hear about lack of successors? Our visit was too short to fully understand this phenomenon. The difficulty of planning field visits is that one tends to include too many items because one wishes to expose trainees to as many places as possible. If there are too many items in the itinerary one cannot spend enough time in each place. As it was the first time for the potato farmers in Aino Town to receive trainees, the young farmers seemed to have been somewhat hesitant. It is our job as trainers to break the ice in a situation like this.



Nagasaki Peace Park: In the Peace Park, the trainees were in a jolly sightseeing mood and interacted with students on a school trip. However, as soon as they entered the Nagasaki Atomic Bomb Museum, they fell silent. After two hours of going around in the museum they became exhausted. This visit may have been a little far from our objectives of the field trip. Nonetheless, we saw their earnest desire for learning about Japan's history and comparing it with the history of their own countries.

(By Hasegawa and Ono during the Kyushu Field visit, August 2004)

"Human Resource Development"- Our Challenges in Training Activities

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.

Lessons Learned from Mangrove Ecosystems

Part 5: Efforts for conserving mangrove ecosystems in other areas

Previously, we introduced expert dispatch activities and a development study for mangrove ecosystem conservation in Oman. In addition, JICA has conducted similar studies in the same field in Myanmar and Senegal with the aim of conserving natural brackish water ecosystems.

	The master plan study on restoration, conservation and management of mangroves in the Sultanate of Oman	The study on integrated mangrove management through community participation in the Ayerwarwady Delta in the Union of Myanmar	The study on sustainable management of the mangrove in the Petit-Côte and Saloum Delta in the Republic of Senegal
Current situation and background	Cutting down of mangroves by local residents, overgrazing by livestock, decreasing mangrove habitat due to development activities, need for conservation as an integral part of the coastal area management plan.	Mangrove deforestation due to harvesting of firewood and charcoal materials and paddy field development, need to formulate of participatory management plan as an integral part of the forestry policy	Decreasing mangrove forests due to lower rainfall and felling, need for a sustainable management plan as an integral part of the Senegal's forest action plan.
Project objectives	Formulation of a master plan for reforestation, conservation and management of mangrove forests	Formulation of the comprehensive mangrove management plan, technology transfer for sustainable utilization of mangrove	Formulation of a sustainable management plan for sustainable use of mangrove
Project content	Formulation of mangrove reforestation, conservation and management plan, selection of appropriate areas for afforestation and transfer of afforestation techniques.	Formulation of the comprehensive mangrove management plan, transfer of participatory natural resource management methods and mangrove afforestation and nursery	Formulation of a sustainable mangrove management plan, implementation of experimental projects at village level, technology transfer regarding sustainable utilization methods
Project size	Existing forests cover 1,088 ha in over 24 locations. The study area is 600ha in 7 locations.	Study area covers approximately 224,000 ha in 5 conservation areas.	Study area includes approximately 50,000 ha of mangrove forest
Project period	June 2002 – August 2004	February 2002 – January 2005	December 2001 – March 2005
Implementing agency	Dep. of Environment, DG of Environmental Affairs, Ministry of Regional Municipalities, Environment and Water Resources	Forest Department, Ministry of Forest	Dep. of Water, Forest, Hunting and Soil Conservation, Ministry of Environment and Nature Protection

All these projects share similar backgrounds although the size of the target mangrove area varies greatly between the different locations. In all the three countries, mangrove forests are decreasing because of natural or man-made causes, and formulation of a management plan for sustainable use of the natural resources is ranked as a priority in the central government's planning. Moreover, all activities share a participatory approach involving local residents, place emphasis on technology transfer activities such as management capacity building and involve awareness raising programs.

In Myanmar, standards for selecting appropriate afforestation areas are not clear, and the growth rates of afforested mangroves vary greatly. Therefore, it is considered necessary to implement monitoring activities in order to clarify the correlation between the growth rates and various conditions of the afforestation areas. Moreover, use of GIS to consolidate information on natural conditions is also a basic approach of the study. In Senegal, there is a great expectation for planting *Avicennia marina* as this species can grow well in water with high salinity. However, in practice, nursery and afforestation techniques are not really advanced. In the master plan study in Oman, in order to establish a baseline for monitoring planted mangroves all the results obtained in the study were inputted in the GIS database. Nursery and planting techniques of *Avicennia marina* have already been established under the cooperation of JICA expert. In addition to the master plan study introduced here, since the 1980s, the UAE has been experimenting with mangrove afforestation as part of its aquaculture programs. Based on the achievement of successful direct sowing of *Avicennia marina*, UAE has been expanding such projects. Along the section of the Red Sea coast that lies in the territory of Sudan detailed researches exist on the intricate relationship between mangrove ecosystems and camel herders in the area. In Zanzibar, boardwalks for mangrove observation have been constructed with the participation of local residents and the development of participatory ecotourism ventures is foreseen.

Mangrove vegetation is established in the brackish water between seawater and the land, therefore generally this ecosystem is vulnerable to environmental changes and human activities. At the same time, mangroves offer important natural resources for local residents and also are recognized as having high potential as tourism resources. In the effort to conserve and utilize mangrove vegetation, it is an important task to promote information exchange and technology transfer. In Oman, an information center for coastal environmental conservation including mangrove vegetation is about to be established. I sincerely hope that mangrove ecosystems will be conserved by halting the decrease and degradation of mangrove forests in different parts of the world through appropriate information exchange and technology transfer at the center.

Herders in Mongolia and the market economy (1)

As we mentioned in AAI News Volume 45, in the early 1990s Mongolia saw the end of the socialist era, which had lasted for nearly 70 years, and joined the world of the market economy. However, the economy of the country has been unstable due to reasons such as over-concentration of wealth in the capital Ulaanbaatar, increasing poverty and natural disasters. Therefore, the most important challenge in international cooperation for Mongolia is regional development that is in balance with development in urban areas; i.e. the revitalization of nomadic pastoral system. Nomadic pastoral system is the traditional land use in Mongolia and has long maintained the vast highlands of Mongolia in a sustainable fashion. Nomadic pastoral system has a very different dimension to it compared to the modern civilizations based on agricultural farming. Due to this reason it is still largely unknown how a nomadic pastoral society will sail through the mighty ocean that is called the market economy. For example, for nomadic pastoral system, it is desirable

to keep a low population density, and for the population to disperse into a large area of land rather than live close together. By contrast, the market economy tends to favour markets with high population densities and therefore tends to thrive in large cities and their suburbs. Long-term stays in one place would degrade pasture and therefore would go against the basic principle of natural resource conservation that is inherent in the nomadic pastoral lifestyle. What is needed now is a brave challenge to achieve integration and co-existence of two very different principles; i.e. traditional nomadic pastoral system and market principles.

The current development study in Mongolia is exploring a number of possible interventions, ranging from improvement of production and processing of livestock products and joint shipments of the products to various possibilities for distribution and sales. These activities aim primarily to expand and stabilize cash income for people. At the same time, it is essential to ensure ecological sustainability of pasture utilization and nomadic pastoral system. This mini-serial essay will introduce two examples of dairy products shipment and sales projects which have been implemented with due care for environmental management in order not to over-utilize grassland resources.

The first example is the attempt to create a shipment and sales base in remote and low-impacted pasture in the Erdene County of the Dornogobi Prefecture that borders China. The central western part of Erdene is called Burdene, and is an area of supreme beauty with wetland valleys among small hills dotted with a bush called Zag (*Haloxylon ammodendron*). There is a retreat for those suffering from kidney ailments, and every year from June to August, many patients gather from all over Mongolia for treatment and recuperation. At this retreat, Mongolia's traditional treatment is offered, promoting perspiration by covering one's body with sands from dunes that are scorched by the sun. After that, water in the body is replenished using sour milk from camels called Botsalgaa. This increases demand for camel milk during the summer months and therefore creates a business opportunity for nomadic pastoral herders around the area to sell camel milk.

Study team was fielded and it aimed at distribution and sales of milk and dairy products at the retreat. In collaboration with the Mongolian authorities, the study team contributed to multi-dimensional improvement of resort management, assisting with improvement of water supply by digging wells, and with the reexamination of administration of the retreat including the wholesale price of milk and price setting for the facility's use. It also offered suggestions, guidance and advice regarding other aspects of the running of the retreat. However, they are still in the stage of trial and error, and not everything is moving as desired. Moreover, certain vulnerabilities such as condition of plant growth, which is influenced by the climatic conditions of each particular year, inevitably exist. Within these constraints, they are aiming to establish a management system for the vibrant retreat which can satisfy both retreat users and nomadic farmers. Furthermore, our ultimate goal is balanced pasture utilization.

An artificial structure, be it a retreat or a city, are only small dots within vast pastures. However, if seasonal livestock markets are established in remote areas, rather than around cities and convenient road and railway stations, it will not only lead to effective utilization of unused pastures, but also will alleviate the concentration of nomadic pastoral herders in particular pasture areas. There are some similar retreats for kidney ailments other than the Burdene in Mongolia. On the other hand, there is an increasing interest in ecotourism development such as setting up camping sites with Ger tents (traditional tents made of felt), and there is a growing expectation for economic development in the regions. If these facilities attracting tourists and patients for retreats are to be consolidated in future, it is highly likely that opportunities to sell livestock products in remote low-use pasture areas will grow dramatically, in contrast with the business as usual scenario of these opportunities concentrated in urban areas. This is what is in the root of our interventions to promote milk and dairy products sales and distribution at the Burdene retreat.

¹ The term nomadic pastoral system has a certain connotation and is often used confusingly. Pastoral system is defined as a type of livelihood activity in which people keep social hoofed livestock and rely on livestock products for their housing, clothing and food. It is one of the four most basic livelihood activities, along with gathering, hunting (including fishing) and farming, which have been sustaining human kind for a long time. However, pastoral system- has taken various forms depending on the region and time period. The term nomadic pastoral system in this article is used as a form of pastoral system. In principle regardless of the regularity of movement of people and livestock, it refers to pastoral system with seasonal movement of herders who do not own land.

