Environmental issues in the Gulf oil producing states

In the last few years, we have been thinking what kinds of projects we can start which only AAI can do. Since its establishment, AAI has been consistently working for agricultural development in arid regions. We would like to start something effective and useful using our experiences and contacts. In order to explore future possibilities, we visited the UAE, with which we have a long-standing relationship, holding discussions with old friends and feeling the local air.

UAE recently changed the name of the Ministry of Agriculture and Fisheries to the Ministry of Environment and Water. This indicates that the country is placing increasing importance on environmental protection and sustainable development of resources over agricultural production. In particular, the water resource crisis is keenly felt, given the lowering of the ground water table and the increase in salinity which is happening around the country. Farms of the Mirak Company with large scale horticulture farms desalinize ground water reducing salt concentrations of 5,000 ppm to 100 ppm for use in irrigation and air conditioning of green houses. For this, people seem to be very much interested in horticulture (hydroponics), and wherever we visited discussions turned to hydroponics. Despite the serious situation of the country's water resource base and the level of high interest in hydroponics, the research institutes we visited did not conduct any experiments on hydroponics. This is because there is a lack of expertise in this field. On the other hand, AAI has a good amount of experience and knowledge of this subject, with staff who provide technical training at JICA Tsukuba on vegetable cultivation, who have studied horticulture for university degrees, and who supported horticulture in UAE in the 1980s. At an agricultural experiment station we visited, staff were extremely interested in our discussion on Japan's horticulture, and requested us to make a presentation to the relevant staff in the central government. Regrettably, we could not do much this time, but we felt AAI could make meaningful contributions in developing horticulture in UAE. In Japan, research in horticulture is being conducted for product quality enhancement and energy saving. However, there are many techniques that could be applied in the UAE, including environmental control, and irrigation water and fertilizer management. It may be possible to develop a business to foster cultivation systems that are suitable for the country and their wide extension, in collaboration with the experiment stations we visited this time and university experimental farms and companies that are interested in coming into the agricultural field.

In Dubai, excessive water front development has been promoted to the extent that it totally changes the natural geographical features of the coastal area. Oceanic pollution is becoming a serious issue and red tides have become frequent in recent years. At the fisheries experiment station established with support from JICA in the 1980s, active research work was conducted to find out reasons for red tide outbreaks and on coral multiplication and replanting technology, in addition to the traditional research areas dealing with development and extension of aquaculture techniques. In addition, at this research station, experiments are conducted on mangrove planting. There are impressive mangrove forests around the drainage channels, which were planted 30 years ago, and which sustain abundant fish populations. Seedlings are also produced continuously and are distributed to reforestation sites around the country every year. When we visited this experiment station, an environmental education program was being conducted targeting primary school students. In the UAE which is undergoing an unprecedented rate of development, it is extremely important to continue to pursue environmental education activities targeting young people who will be the next generation. AAI has experience in mangrove regeneration and conservation in Oman. The primary school students who participated in the reforestation activities said "trees have been growing lately and there are more birds and fishes." This kind of experience itself is environmental education. Moreover, AAI has also developed training programs identifying training needs in many developing countries. By utilizing these experiences, it may be possible to develop environmental education program which are rooted in the needs from the field, in collaboration with the UAE government or by establishing an NGO.

In this way, the business AAI seeks is not profit making. Our work is founded on the idea that we would contribute to solving problems in different parts of the world through the provision of long-term support. Would it be possible to make use of our past experience in developing organizations and activities to tackle environmental issues that emerge from the distortion in society and environment which fast and large scale development creates? This visit is the first step towards the effort and we hope to connect it to the next step.



Mangroves planted 30 years ago

Environmental education program at the experimentation station

