

Toward sustainable forest conservation <Part 4>

Conservation of mangrove forests with the participation of local residents

Our past issues “Lessons learned from mangrove ecosystems” (No.43-48) have already reported the significance of mangrove forests, which are especially important in arid lands as a source of valuable green resources and conservation of local ecosystems. Development study and technical cooperation projects were carried out in Oman as shown in the table below, in order to implement planting and conserving mangrove forests properly.

“The master plan study on restoration, conservation and management of mangroves in Oman” conducted surveys of the natural environment (geography, soil, water quality, etc.) as well as socio-economic surveys of the study area. Investigation activities in the wetlands were extremely difficult, but with the cooperation of local residents, the surveys revealed multi-purpose usage of mangrove forests by communities, such as not only sources for direct use in the form of fuel, construction materials and animal feed, but also as nurseries for shrimps and fish as well as a beekeeping site. In addition, environmental education can be provided to school children, through conducting planting of seedlings and removal of seaweed with them. The master plan formulated through the surveys proposed establishment of a Mangrove Information Center to carry out continuous surveys on mangrove forest ecology, human resource development for the surveys, and dissemination activities / environmental education for local residents.

Based on the results of the study, the “Qurm Environmental Information Center (QEIC) development project” was implemented as a technical cooperation for establishing a core center of mangrove forest conservation in Oman and its surrounding areas as well as developing human resources. The project activities included mangrove reforestation, monitoring of mangrove ecosystems, environmental education and training of

expected QEIC staff, in order to functionalize the future QEIC.

It is anticipated that QEIC will be a base for environmental education and dissemination activities after establishing the center and building capacity of center staff. It is desirable QEIC will be a visitor center for nature and bird observation, like the ones commonly established in various places in Japan, which perform exhibition events and observation gatherings for visitors and local residents, in addition to implementing environmental education programs and other dissemination activities for conservation of mangrove forests.



Soil survey in a muddy mangrove forest



Distributing mangrove seedlings to school children

Various activities were carried out in the technical cooperation project, such as formulating exhibition plans at the center, developing environmental education programs, and preparing education materials for each program. Through these activities, providing information on mangrove forests and their ecosystems will lead to a better understanding of the recipients. In addition, different environmental education programs were implemented involving inviting school children and their parents as well as hotel employees, or by visiting schools. These activities are effective in raising awareness and strengthening capacity with the participation of residents. Although it is rather difficult to have tangible results through these efforts in terms of changes in people's awareness, it is deemed that well-planned and continuous activities will lead to sustainable conservation of mangrove ecosystems.

Title	Master plan study on restoration, conservation and management of mangroves in Oman	Qurm Environmental Information Center (QEIC) development project
Objectives	Formulating a master plan of mangrove forest conservation of each site, including capacity building programs for relevant persons and dissemination programs for local residents.	Organizational and human resource development for QEIC, so as to establish a core center for national and regional mangrove forest conservation.
Major activities	<ul style="list-style-type: none"> - Survey of the natural conditions of existing mangrove forests along with socio-economic factors - Evaluation and classification of the value of each mangrove ecosystem - Preparing technical guidelines of mangrove plantation - Formulating a master plan of mangrove forest conservation 	<ul style="list-style-type: none"> - Preparation of training materials and guidelines for capacity building of QEIC staff, and implementation of training for them - Studying monitoring methods of mangrove ecosystem - Preparing guidelines of mangrove plantation - Implementation of environmental education programs and preparation of education materials - Establishing database of mangrove forest/ecosystems