

— Rehabilitation of forests degraded by — disasters

Although forests provide multiple benefits to human society, deforestation and forest degradation have been progressing at an alarming rate. Human-created and natural disasters have depleted major swathes of tropical forests, resulting in large and expanding areas of degraded forest ecosystems. The 2004 tsunami off the coast of Sumatra worsened the situation. There is thus a growing need for forest rehabilitation in the Asia-Pacific region. Japan has rehabilitated its forests successfully, and to examine how it has done so the APO, in cooperation with the Japan Association for International Collaboration of Agriculture and Forestry and Japanese Ministry of Agriculture, Forestry and Fisheries, organized a multi-country study mission on “Rehabilitation of Forests Degraded by Disasters” in Japan, 4–11 October. Nineteen individuals from 12 APO member countries participated in the mission.

Three resource speakers, one from the Food and Agriculture Organization in Bangkok and two from Japan, spoke on: 1) Rehabilitation of forests degraded by disasters in the Asia-Pacific: issues and challenges; 2) Policies and systems for restoration of disaster-devastated forests in Japan; and 3) Modern technologies and approaches to the rehabilitation of forests degraded by natural disasters. Participants visited rehabilitated forest sites in Tochigi and Akita prefectures. In Ashio and Kosaka, they observed forests previously damaged by smoke from copper-mining and -processing operations, while in Noshiro and Obiraki they examined forests recovered from 1983 tsunami damage.

The participants drew useful lessons from Japan’s experience in forest rehabilitation, including effective policy and institutional arrangements; modern technologies and techniques; need for awareness of the importance of reforestation and rehabilitation and private- and public-sector partnerships; and commitment of resources to forest rehabilitation. Such lessons can be applied in efforts for forest rehabilitation in other countries in the region. Another lasting lesson was that preparation for disasters is 10 times more important than cleaning up after them. The former is also usually less costly. The Japanese proverb “disasters occur as soon as we forget them” was aptly quoted.

Some of the future directions of disaster preparedness and rehabilitation of forests damaged by man-made disasters and natural calamities could be:

1. A nationwide review of disaster assessment and mapping of forests (and woodlands) in member countries is strongly recommended.
2. Information collection, analysis, and dissemination systems (including disaster-related statistics) should be enhanced under national forest management systems.
3. The use of remote sensing (RS) and geographic information system (GIS) technologies is known to be cost-effective in monitoring, assessment, and planning. It was recommended that RS/GIS facilities be made available at provincial or district level.
4. National and provincial government agencies should be prepared for disasters under integrated programs.
5. Participatory approaches, public awareness raising, and training including evacuation drills are useful measures to prepare local people for disasters.
6. Learning from experiences in other countries is encouraged, but with some caution. Any changes in socioeconomic systems need careful screening and adaptation to local conditions. It is easier to transfer technical know-how but this still requires screening and adaptation.



Participants visiting a rehabilitated forest site in Akita prefecture

7. There are two technical options in forest rehabilitation work: natural regeneration and planting. Both have advantages and disadvantages, although overall rehabilitation costs for the first five years of natural regeneration is about one-tenth of those in plantations.

Developing countries may experience shortages of information, technology, funding, manpower, etc., although constraints and limitations are often the mother of creative approaches. A forest rehabilitation plan must have a place in the national policy framework with legal, institutional, and budgetary provisions. 🌱