

# Country status report - Cambodia

## APFORGEN National Coordinators (SEA) Meeting

Kuala Lumpur, 29-30 November 2004

### ***Introduction***

Cambodian forests have been, and continue to be, under heavy pressure from a range of forces through encroachment, land conversion, logging and indirect human activities. The rapid and ongoing degradation of the natural forest has led to the erosion of the gene pools of several species and populations. The potential for tree improvement, as well as sources for good seed from desired mother trees, is therefore, dwindling.

Forest gene resource conservation and management (FGR C&M) is a relatively new concept within Cambodia. The establishment of the Tree Seed Sector within the Forestry Administration has been supported by the Danida supported Cambodia Tree Seed Project, which has focused around capacity building activities in order to upgrade skills to enable the implementation of FGR C&M.

Ongoing FGR C&M activities include seed source establishment and management, the establishment and maintenance of demonstrations, provenance trials and seed orchards, and piloting community participation in the management of seed sources. A National Forest Gene Conservation Strategy, Action Plan, and Gene Ecological-Zoning Model have been developed and adopted, and a range of extension activities continue to be conducted to raise awareness of the importance of using good genetic and physiological seed.

### ***National capacity in FGR conservation and management***

#### **Organisation**

The lead institution for forest gene conservation and management within Cambodia is the Forestry Administration, of the Ministry of Agriculture, Forestry and Fisheries. The Department of Nature Conservation and Protection, of the Ministry of Environment has responsibility for forest gene conservation and management falling within protected areas under its jurisdiction.

Major organisations involved in FGR activities include:

- Forestry Administration – with technical and financial assistance from the Danida supported Cambodia Tree Seed Project. 7 forestry officials are involved in FGR C&M on a full-time basis.
- Royal University of Agriculture – provenance trials.

#### **Capacity building models**

Capacity building has been a major focus of forest gene conservation activities. Methods that have proven to be successful are:

- Teaching/lecturing
- On-the-job training/learning by doing
- Study tours and field visits
- Workshops and seminars

Generally, a mix of approaches is the most effective means of capacity building, and is supported by a wide range of extension materials, including field manuals, guidelines, and species monographs. It is now an opportune time to supplement these achievements with an increase in analytical skills, and specialist expertise in areas such as botany.

However, outside of the tree seed sector, there remains a need for a general upgrading of capacity to broaden the understanding of forest gene conservation, which is still in its infancy in Cambodia.

### **Public awareness**

A broad range of extension materials have been produced and distributed via different channels to diverse target groups. Examples include:

- TV and radio spots
- Articles in forestry magazines
- Manuals and field guides
- Leaflets, posters, seed calendars
- Presentations in workshops and meetings
- Membership of the Community Forestry Network

In general, relevant extension materials are distributed through the many opportunities presented by forest gene conservation activities. However, there is still a strong need to further address this issue, and although it is an ongoing activity within current work plans, it has been allocated a lower priority than in the past, due to more pressing commitments.

### ***Institutional and political setting for FGR conservation and management***

#### **National Policies**

National policies are barely existent in relation to forest gene conservation. The Royal Government of Cambodia issued a Statement on National Forest Sector Policy (2002), which will be further detailed in accordance with the development of the National Forest Programme. Forest gene conservation is, however, addressed in a number of legislation, strategies and plans, as outlined below.

- Forestry Law (2002)
- National Biodiversity Strategy and Action Plan (2002)
- National Forest Gene Conservation Strategy and Action Plan (2003)
- 5-year Forestry Action Plan (2004-2008, draft)

### **National FGR task force**

National task force has not yet been established for forest gene conservation and management in Cambodia.

An institutional framework for the implementation of the Forest Gene Conservation Strategy has yet to be established, a process which may consider the need for a national level body to oversee forest gene conservation.

### ***FGR conservation strategies and practices***

#### **National strategies or plans for FGR C&M**

The National Forest Gene Conservation Strategy and Action Plan were launched in December 2003. Whilst some activities are currently ongoing, as listed below, its broader implementation requires additional funding, and is allocated high priority within the Forestry Administration.

- In-situ seed source establishment and management
  - 12 seed stands/conservation stands have been established, including 23 species
  - 5 ministerial declarations protect 9 conservation stands
  - piloting of community participation in seed source management is showing promising initial results
- Ex-situ conservation plots
  - management of a 10ha seed orchard containing 6 species
  - provenance trials established for 2 species
- Networking with other countries active in gene conservation
  - for information and experience exchange
- Capacity building
  - forest gene conservation and management
  - use of the GIS based Gene-Ecological Zoning Model

A GIS based Gene-Ecological Zoning Model has been developed as an extremely useful tool in planning conservation activities and for matching species to sites.

Currently FGR C&M activities are undertaken by the Forestry Administration, and are coordinated in collaboration with the Cambodia Tree Seed Project. Together with the Centre for Forest Landscape and Planning (Denmark) an agreement is under formulation including pilot activities aiming to propose an appropriate institutional framework for the implementation of the National Forest Gene Conservation Strategy.

### **Priority species update**

The Forestry Administration assesses conservation needs and priorities for forest species in reflection of the changing conditions of the forest resource base, and in response to local people's requirements.

Some species have been identified for inclusion in the conservation strategy and an update to the national priority species list is planned in 2005.

### **National conservation strategies**

The Forest Gene Conservation Strategy includes the 34 priority species referred to in the 2003 Country Report. The strategy is not binding, but the seed sources/conservation zones are protected by ministerial declarations or community forestry agreements. The strategy was developed by a multi-institutional working group representing the forestry, environment, and health sectors, universities and non-governmental organisations.

### **National budget for FGR activities**

A budgetary allowance for forest gene conservation and management, is provided through the Danida supported Cambodia Tree Seed Project. In view of the lack of national budget allocations to this sector, the Forestry Administration will seek external funding for future forest gene conservation activities.

### **Challenges in FGR C&M**

The main challenges for FGR C&M are related to ongoing forest degradation and encroachment. However, this is a national scale problem that requires multi-sectoral solutions towards land use planning and improved livelihoods. Forest management is limited by capacity and budgetary constraints.

### **FGR management at the community level**

FA/CTSP is piloting this idea as an approach to FGR C&M. An organisational structure has been developed, and is currently being tested in Siem Reap (with the triage level of the Forestry Administration), and under establishment in Koh Kong (in collaboration with American Friends Service Committee).

Forest gene conservation/seed source management in itself, is unlikely to provide a large monetary benefit to communities, and needs to be integrated into wider forestry related activities, for example, through the establishment of community forests. At the same time as providing a wider buffer for the protection of the FGR, this can secure access to a wide range of non-timber forest products for communities. In terms of management plans, special provision is made for FGR areas within the broader community forestry management plan.

### ***Updates since the last workshop***

#### **Recent policy/legislative development**

- Adoption of the Forest Gene Conservation Strategy and Action Plan (2003)
- Proposed 5-Year Action Plan for the Forestry Sector (2004-2008)
- Independent Forest Sector Review (2004)

#### **Institutional changes**

- Restructuring of the Forestry Administration for decentralisation of activities (2004)

### **New large national FGR conservation and management projects**

- Collaboration with the Centre of Forests, Landscape and Planning (Denmark) in piloting the Forest Gene Conservation Strategy in order to propose an appropriate institutional framework for its full implementation (2005-6)

### **Other**

- Development and distribution of a GIS based Gene-Ecological Zonation Model for (2003)
- Piloting of participatory approaches to forest gene conservation.

### ***Regional collaboration on FGR C&M***

- information/germplasm exchange
- training (*in situ* and *ex situ* conservation, tree improvement, botany)

### ***References***

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