

Brief on

Conservation of Forest Genetic Resources



How to re-establish the forest after it has disappeared? It can not be done without planting material. Therefore conservation of forest genetic resources is needed now.

Have you conserved your forest genes?



HIGHLIGHTS

Many different interests, and conflicting concerns

The Cambodian Case

Components of a National Forest Gene Conservation Programme

The decentralised, participatory and poverty reduction oriented approach

The Forestry Administration in Cambodia has embarked on a very successful conservation programme of forest genetic resources. The programme is implemented in a decentralised, participatory and poverty reduction oriented way.

Many different interests, and conflicting concerns

Everybody wants something from tropical forests. Forest dwellers wish to continue their traditional way of life based on hunting and gathering. They are losing their land to migrant smallholders, who clear small areas of forests to earn a living by raising crops and livestock. Both these groups tend to lose out to larger, more powerful interests – plantation owners, large scale farmers or logging concerns – whose aim is to convert large areas of forest into big money. Outside the forests is the international community, who wishes to see forests preserved for the carbon they store, and for the wealth of biological diversity they harbour.

History proves that deforestation will not stop before almost all trees in the forests are cut! Rather it will continue in the developing world, as it did in Europe 200 years ago, because converting forests to other uses is almost always very profitable for the individual. Around 1800 many countries in Europe had forest covers of 2-5% only. However, society as a whole bears the costs of lost biodiversity, global warming, smoke pollution, and the degradation of soil and water resources.

Please contact the Forestry Administration:

Homepage: www.treeseedfa.org E-mail: ctsp@online.com.kh

A main problem in achieving conservation goals is the lack of adequate institutional and political frameworks under which land-use and operational management choices, fair to all stakeholders, can be assessed and implemented.

The key to success will lie in the development of programmes that harmonise conservation and sustainable utilisation of biological diversity within a mosaic of land – use options. Sustainability of action over time will be based on genuine efforts to meet the needs and aspirations of all interested parties. It will require close and continued collaboration, dialogue and involvement of stakeholders in the planning and implementation of forest gene conservation programmes.

The Cambodian Case

The more forest left, when a conservation programme is started the better, - or in other words: The sooner a conservation programme is started the better!

The Forestry Administration in Cambodia realised that and embarked on a forest gene conservation programme in 2001, when still more than 60% of its total land cover was forest. Despite this a number of the indigenous trees in Cambodia are listed as vulnerable or endangered. The situation in Cambodia is not unique – many other developing countries are in similar situations with a profound need for starting conservation of forest tree genes.

Components of a National Forest Gene Conservation Programme

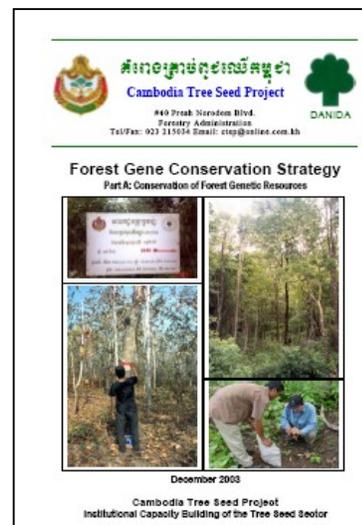
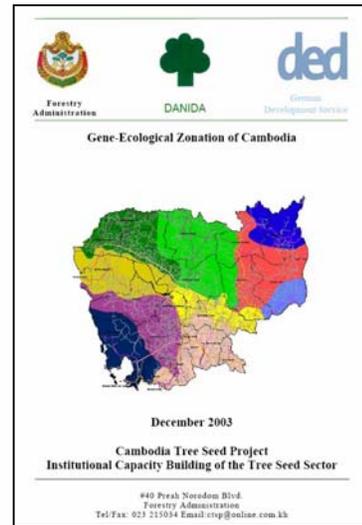
The Forestry Administration facilitated a systematic planning approach including the following sequence of activities:

- Selection of priority species
- Assessment of their genetic variation
- Assessment of their conservation status
- Identification of conservation method
- Organisation and planning of conservation activities
- Preparation of management guidelines for the conservation areas
- Preparation of management agreements with stakeholders
- Institutionalisation of the activities in the government structure

The following cornerstones in the conservation programme were produced as results of the activities: A gene-ecological zonation, a forest gene conservation strategy, monographs and species distribution maps.

A gene ecological zonation system, including maps were produced. It is generally assumed that similarity of agro ecological conditions (growth condition) in a given geographical area implies similarity in genetic

constitution of flora in the same geographical area. In other words the establishment of an agro ecological map of Cambodia will be identical to the establishment of a gene ecological map of Cambodia.



An example of a species distribution map.

It is important to emphasise that participatory approaches to forest gene conservation can only be sustained if the participants themselves perceive clear benefits for their efforts, like: ownership, immediate economic benefit, status and cultural/spiritual significance.

However, without government support, in the forms of law enforcement and co-operation between different government agencies, improvement in local forest management is unlikely to be sustained. Therefore, attention must be paid to the crucial role of government action for the outcome of participatory conservation processes.

A government can support participatory forest conservation through:

- Decentralisation of political, fiscal and administrative power
- Provision of land-tenure security and user rights for involved stakeholders
- Education, awareness raising and other forms of capacity building



A local villager assessing the quality of a *Dalbergia bariensis* tree.

In Cambodia the local levels of Forestry Administration were asked to identify potential forest gene conservation areas based on criteria defined within the Forest Gene Conservation Strategy. Following this, the proposed sites were visited and assessed by members from central Forestry Administration, and discussions began with communities near by. Specific agreements outlining the stakeholders' roles and responsibilities were prepared for each conservation area. Management plans were made and Ministerial Decrees issued for most conservation stands.

In the case that there are no communities within the immediate vicinity or no interest demonstrated in forest

gene conservation, sites are established under the management of decentralised levels of Forestry Administration.



Participatory planning of community based forest gene resource conservation

Current status of forest conservation in Cambodia

Thirty-five forest gene conservation stands, amounting to a total area of 691 hectares, comprising 20 endangered tree species (including 6 priority species) have been established to date. Five species are conserved in more than one gene ecological zone, whilst other priority species are not yet conserved anywhere.

The conservation activities undertaken in Cambodia since 2001 have been very much supported by Cambodia Tree Seed Project (CTSP) financed by Danida. CTSP terminates mid 2006 and the Forestry Administration has prepared for the continuation of the forest gene conservation activities by transferring the responsibilities to the Forest and Wildlife Science Research Institute under Forestry Administration. Most staff members from CTSP originate from this research institute and will return to the same institute, when CTSP ends.

The Forestry Administration has finalised a guide on the preparation of forest management plans at the decentralised level. All considerations related to forest gene conservation are included in this guide.

In this way forest gene conservation has been institutionalised in the existing organisational structure of the Forestry Administration and is forming part of standard forest management planning at decentralised levels in Cambodia.

**Conserve your forest genes.
Cambodia did it, you can do it.
Follow the Cambodian case!**