

Executive Summary

Maintenance of forest genetic resources is of crucial importance to sustainable development. However, global forest loss and degradation is resulting in a dramatic loss of biological diversity and options for utilisation and development. Cambodia is no exception, with several valuable indigenous tree species presently vulnerable to extinction at species, and in particular, at population level.

The Royal Government of Cambodia gives high priority to reforestation activities. A pre-requisite for success is the supply and use of quality seeds, which are only available through the conservation and wise use of forest genetic resources. As deforestation progresses, and logging and encroachment of the remaining primary forests continue, the genetic resources of many economically important indigenous species are disappearing, and the potential for establishing seed sources for reforestation of natural species is deteriorating.

Although the national tree seed sector is in its infancy, the Forestry Administration (FA), in collaboration with the Danida supported Cambodia Tree Seed Project (CTSP), has among other priorities, been working towards the conservation of forest genetic resources for some years. The favoured approach is to establish seed sources/conservation stands and to increase the planting of valuable endangered species. This is hoped to ease the pressure on natural populations and contribute to poverty alleviation and environmental conservation through economic and social development.

The Forest Gene Conservation Strategy is divided into two parts:

- Part A: Conservation of Forest Genetic Resources
- Part B: Action Plan for implementation.

Part A documents the process and accomplishments to date, and outlines methods for the conservation of forest genetic resources in Cambodia. The following points provide a few highlights.

Achievements

- establishment of a multi-disciplinary Working Group to develop the strategy and to identify future steps for action, its members have been officially confirmed and their terms of reference approved
- identification of 34 indigenous tree species as priority status for conservation (with 21 graded as higher priority), based on their socio-economic importance, level of within-species threat, and level of threat of risk
- preparation of monographs for each priority species, their known distribution assessed and digitally mapped
- identification of seven distinct gene-ecological zones on the basis of bio-climate, vegetation, physiography, and soil
- identification and establishment of 23 key seed source populations across 5 provinces, including 17 species
- establishment and maintenance of a seed source registration system
- initiation of community participation in forest gene conservation and tree seed source management

- completion of ministerial declarations for all seed sources situated on government-managed land, and agreements for the management of seed sources with local communities
- preparation of an action plan, outlining activities and timescales necessary to establish a number of tree seed sources for conservation

Considerations

- the 21 priority species have been, and are continuing to be, overexploited at several locations, especially through forest encroachment, logging, land conversion, and indirect human activities, leading to genetic degradation
- the favoured conservation option is *in situ*, to be complemented by *ex situ* activities, especially gene conservation stands
- *ex situ* is a more expensive, but effective approach for species located in remote areas, or those experiencing rapid forest loss and degradation
- a participatory approach is essential for *in situ* conservation, through the integration of conservation and local development efforts
- seed sources are selected in forest areas not subject to logging, where small areas are surrounded by buffer zones of secondary forest, which compensates for the lower number of trees in those areas
- stand level management plans will be developed through a consultative process involving all stakeholders
- roles and responsibilities of all stakeholders will be defined according to the forest management regime
- the biological and administrative scope for cross-border conservation is limited