

## EXECUTIVE SUMMARY

### **Scope and management goals**

This revised Forest Management Plan defines the scope, direction, and prescribed activities for the management of FMU 17A over a 10-year period beginning from 1<sup>st</sup> January, 2006 to 31<sup>st</sup> December, 2015. It is a second revision. The first revision was in 2008 and approved by the Director of Forestry in February, 2009 from an earlier Plan that was approved in 2006. The primary long-term goal of the Plan provides for integrated multiple use of forest resources, including the sustainable production of timber, in compliance with FSC Principles and Criteria and all existing rules, regulations and prescribed constraints. The management of FMU 17A comes directly under the administration of the Sabah Forestry Department.

### **Management zones**

FMU 17A covers an area of approximately 50,070 ha. It is divided into 91 compartments, forming the basic unit of management. At the landscape level, the area is divided into two broad management zones as follows:

Conservation :	4,634 ha (10 %)
Production :	45,436 ha (90 %)

### **Timber resource management**

A large part of FMU 17A comprises of highly degraded and poorly stocked logged forests, with little prospect for natural regeneration. Growth projections for all production compartments show that only 228 ha may be harvested after the 10-year planning period, and a total of 11,556 ha (24 %) may be harvested within one cutting cycle of 40 years. All other production compartments amounting to an area of 36,327 ha (76 %) are not expected to yield an economic cut within one cutting cycle. Such areas will require some form of assisted regeneration or restoration.

From growth projections, it is apparent that commercial harvesting cannot be sustained over the planning period. Therefore, in the current planning period, there will be no commercial harvesting. Emphasis for this planning period will be placed on the restoration of degraded forests to improve their capacity for timber production. This will take the form of either refinement and liberation treatments or forest plantations. Silvicultural activities and operations prescribed for the planning period are as follows

1) Liberation and refinement treatments:	30,000 ha
2) Forest plantation:	2,000 ha
3) Enrichment planting:	2,200 ha

### **Conservation and environmental impact mitigation**

The Plan emphasizes proper environmental management. An Environmental Impact Assessment was conducted in 2005 to evaluate the potential impacts of forest management. Since commercial logging is not a prescribed activity during this planning period, its environmental impacts are not considered in this Plan. Forest plantation involves some forest clearing based on a mosaic system. However, such operations strictly follow established guidelines, such as the maintenance of 30m riparian buffer strips along streams and aesthetic buffers in selected areas. Logging and plantation establishment are not allowed on slopes greater than 25 degrees. In addition, mixed species plantings are adopted for all forest plantation initiatives. Some 'High Conservation Value Forests' as defined by the Forest Stewardship Council are identified and assessed in FMU 17A and the management and mitigation measures have been prescribed in the Plan.

### **Wildlife**

Despite being heavily disturbed and poorly stocked in terms of commercial trees, FMU 17A still supports diverse wildlife, including the endangered orangutan, pygmy elephants, and proboscis monkeys. The orangutan population density is about 1 individual/km<sup>2</sup>, and this is monitored by aerial assessments every six months. Wildlife populations are also being monitored by extensive camera-trapping. Habitat improvement through enrichment planting is one of the measures being taken during the planning period. Hunting is not permitted in FMU 17A and poaching has not been an issue of concern since active field management commenced in 2006. As wildlife related research intensifies, more information will be available in the near future to improve wildlife management in FMU 17A.

### **Social environment**

There are no settlements or communities living within FMU 17A. However, 6 villages have been identified, which are located adjacent to FMU 17A. These communities do not depend on the use of the forest for their livelihood. A population census shows an increase in village populations for all villages over the last 10 years. These communities are largely engaged in the cultivation of rice, oil palm, rubber, and farm produce within their respective lots, which is under land application. About 30 % of the population is employed outside the villages. Villages suffer from poor infrastructure, particularly good road access and piped water, and have made specific requests to the Forestry Department to assist. Lack of land for cultivation may be a problem in the future as the population grows.

Generally, forestry activities within FMU 17A have benefitted the local communities. Operations, such as tree planting and vine cutting, have provided alternative employment to the local communities. Since these communities do not use the forest, they pose no negative impact on the integrity of FMU 17A.

**Budget requirement**

A budget of RM36.958 million is required to fund the entire plan implementation over the 10-year planning period. Expenditure will largely go towards timber stand improvement (41%), salaries and wages (21 %) and infrastructure (17 %). Other cost items are machinery (12%) and forest protection (4%). This new additional funding is required to implement the various activities as prescribed in this FMP. The Forestry Department continues to explore opportunities for external funding, including payment of ecosystem services such as carbon.