

## Executive Summary

This second 10-Year Forest Management Plan (FMP) is prepared as a further guide on forest management in Deramakot Forest Reserve (DFR) from January 1, 2005 to December 31, 2014. The plan is an adaptation and continuation of planning processes that have been in place since the first FMP. The DFR FMP 2 is divided into seven (7) parts. Part I is the introduction, Part II prescribes the general information of DFR, Part III describes the forest resource base, whereas, Part IV provides the medium-term direction for forest protection, harvesting, timber stand improvement, continuous forest inventory (on selected compartments only), forest restoration, forest recreation and ecotourism, community forestry, Research and Development, and managing high conservation value forests. Part V highlights the budget and cost projection of managing DFR during the plan period. Part VI prescribes the EIA and forest management standards, while the last part, which is Part VII, prescribes the responsibility, as well as, monitoring and auditing of sustainable forest management implementation in DFR.

The total number of compartments in DFR is 135, that is, 17 compartments have been set aside for conservation/protection (3,473 ha) and 118 compartments (51,610 ha) for natural forest management (NFM). However, the net production area is approximately 42,789 ha, whereas, the total protection area has increased to 11,355 ha or 21% of the total area of DFR. Forest harvesting is confined to the net production area of 42,789 ha. There are 2 small sub-compartments (18 ha) within the NFM area, which have been designated for the local communities. These areas are to be developed under the community forestry program, which is prescribed in Chapter 4.5.

The long-term objective of natural forest management (NFM) in general, is to sustain production of high value timber based on the AAC limit while maintaining a high degree of species and structural diversity. For this planning period, the annual allowable cut (AAC) is set at 17,600 m<sup>3</sup>, and the total harvest for the entire planning period should not exceed 176,000 m<sup>3</sup>. It is also anticipated that 1,600 m<sup>3</sup> (or 9% of the AAC) can be obtained from the logging residues annually. Twenty-five (25) compartments covering an area of about 11,026 ha are scheduled for harvesting during the planning period. Forest harvesting will be carried out based on reduced impact logging (RIL), which is eco-friendly.

Efforts will be focused on improving the growing stock through timber stand improvement (TSI) and forest restoration programs. During the planning period, TSI treatments will be maintained at 10,000 ha, that is, an average of 1,000 ha

per year, while 2,000 ha involving 5 compartments in the southern part of DFR are to be restored within 5 years through a forest restoration program using indigenous species subject to the availability of funds.

An essential part of yield regulation is the permanent monitoring of the growing stock by repeated inventories or by the use of permanent plots. A permanent monitoring and control system will be established during this management planning period, and repeated inventories will be carried out as a routine management activity. The target is to resample 5 compartments every year.

Given that the original purpose of applying sustainable forest management in DFR was to create a model for multiple-use forestry, there is potential within this management plan period to expand the present functions of the DFR to develop alternative forest uses, such as, forest based recreation and tourism. Therefore, the key step to be undertaken within this management period is to develop recreation and tourism within DFR and maximise economic, social and environmental benefits from this area. To commence forest recreational activities in DFR, there are many basic requirements, which also need to be taken into consideration and/or put in place for these activities to function. Within the FMP period, these requirements will either need to be planned in detail separately or planned for in combination with the various proposed forest recreational activities respectively. This includes roads and access, accommodation, food and beverage provision, transport services, water and electricity supply, telecommunications, waste disposal, safety regulations and emergency procedures, information and interpretive services, and promotions.

High conservation value forests are also prescribed in the plan. There will be a need to focus on the implications for management, to ensure that the high conservation values that have been identified in DFR (biological and ecological category, areas sensitive to disturbance, and cultural, ecological, and economic significance) are maintained or enhanced. This process also needs to be closely integrated with a monitoring program.

At present, the main and secondary roads within DFR are still usable. However, sections of these roads require regular maintenance and/or the upgrading of problem sections. For this reason, road maintenance and upgrading problem sections (such as log-culverts, log-bridges and steep sections) are highlighted as the number one long-term priority infrastructure strategy to be put in place, in order to have good access to DFR and to facilitate the development of forest recreation and tourism in DFR. Similarly, the development of appropriate office space and accommodation will be necessary in DFR due

to its remoteness from urban populations. Also, the provision of adequate and good quality water supply and electricity will be some of the fundamental steps to be put in place for the development of expanded facilities for DFR.

Many commitments in the Sabah Forestry Department strategic directions outline the need for greater scientific knowledge and technological innovation in the forestry sector. Structuring Research and Development enables experts from diverse disciplines, to focus on complex problems and supports the development of more integrated techniques and approaches to resource management. The Forest Research Centre (FRC) in Sepilok will combine their expertise and resources to look at a wider spectrum of issues associated with sustainable development in DFR especially those of the forest itself. In this DFR FMP 2, various research projects have been prescribed, which are to be carried out during the plan period.

A proper long term budgeting plan can help to alleviate an unnecessary escalation of expenses and not to erode potential revenue from a given resource annually. It also allows operational planning to be made in the least costly way and to ensure the project's operations remain viable. For this purpose, a budget plan and estimated revenue which consider the various cost centres and the main activities of the DFR operations and new investments that are considered necessary for the next 10 years, has been prepared. A total of RM 64.33 million is estimated to be required to run the operations of DFR for the next 10 years, while generated revenue is projected to be at RM 83.32 million. The estimated net revenue is RM 18.98 million at current prices.