



RAMIN (*GONYSTYLUS BANCANUS*) IN MALAYSIA

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The phytogeographical region for *Gonystylus bancanus* comprises Sumatra, Peninsular Malaysia (Johore, Pahang, Selangor and Terengganu), Sabah, Sarawak (Malaysia), Brunei and Kalimantan (Indonesia) in the island of Borneo. The species occurs in tropical lowland peat swamp and freshwater swamp forests, with a well-known preference for peat swamps. *Gonystylus* in Malaysia is managed by the Selective Management System, a system designed to balance sustainability of harvesting with long-term conservation. The system also incorporates Reduced Impact Logging and independent third party certification of Permanent Reserved Forests. There are several restoration trials being undertaken for Peninsular Malaysia. The legal framework and law enforcement that affect the management and harvest of ramin in Peninsular Malaysia, Sabah and Sarawak are outlined in several policies, acts, enactments and ordinances.

The criteria, parameters and/or indicators used to make the non-detriment finding for *Gonystylus bancanus* are :-

- habitat preference to peat swamp forests;
- extent of the PSF areas and demarcation of PSF into areas belonging to State and areas under private ownership;
- density and demography of the population in various Permanent Sample Plots (PSPs), Growth and Yield Plots (GYPs) and plots laid out for national forest inventories (NFIs);
- flowering phenology and reproductive behaviour;
- germination, seedling and sapling establishment, growth rates in primary and logged-over areas;
- annual coupe and harvesting regimes/limits employed under the Selective Management System and Sustainable Forest Management;
- suitability of the Reduced Impact Logging (RIL) method; and
- pattern and level of exploitation for international trade.

The main sources of data for NDF are data from the Third and Fourth NFIs, PSPs, GYPs, academic research, pre- and post-felling inventories in targeted areas. These are sample-based and field-evaluated. For the plots established under PSP, GYP and NFI, the published data is data that has been analysed. National Forest Inventories are conducted only for Peninsular Malaysia.

The evaluation of data quantity and quality for the assessment of *G. bancanus* NDF is fairly good because data quantity, particularly with respect to growth and yield and management of harvest, is not lacking. Biological aspects such as reproductive capacity and natural regeneration patterns in primary and disturbed PSFs are however not sufficiently enumerated. Quality of current analysis and assessment may somewhat be compromised due to the loss of long-term data resulting from factors such as the loss of PSPs.

The elaboration of an NDF for *G. bancanus* in Malaysia, is a straightforward process. The taxonomy of the genus *Gonystylus* is well defined and morphological characters are reliable. What made this process complicated is that the trade in timber is undertaken by groupings and not by species. Apart from the use of sophisticated fingerprinting methods and resource-intensive tagging system and monitoring of harvest at sites, there is currently no method that allows quick and reliable identification of species used in any timber products.