

**ACTIVITY PROPOSAL TO THE
INTERNATIONAL TROPICAL TIMBER ORGANISATION (ITTO)**

Submitted by the Government of Malaysia

TITLE Reproductive and Genetic Studies Towards the Conservation and Management of *Aquilaria malaccensis* in Peninsular Malaysia.

Summary

Results from a past study on *Aquilaria malaccensis* in Peninsular Malaysia indicated that demographic pattern of populations in several study sites did not fit the pattern expected of a viable regenerating tree population. This deviation from normality is likely due to both anthropogenic and biological factors. It is an established fact that adult *A. malaccensis* trees in Peninsular Malaysia suffer a high degree of damage that ranges from a complete loss of the main trunk to the extensive slashing of the trunk. The severe damage disrupts disproportionately the natural rhythms of growth and reproduction in the individual and population at large. The observed demographic pattern of populations under the study is perhaps not surprising as mortality rates are not matched by recruitment rates. Results of a current study suggest irregular reproductive activity at the population level. *A. malaccensis* is a highly out-crossed species; in populations that lack adult trees, this reproductive behavior will significantly affect population viability. This proposed activity aims to (i) document the flowering phenology and reproductive behavior of *A. malaccensis*; (ii) develop DNA profiling databases of *A. malaccensis* in Peninsular Malaysia; and (iii) develop a conservation action plan to reduce harvesting pressures on wild populations for the agarwood resin.

Executing Agency: Ministry of Natural Resources and Environment, Malaysia (MNRE).

Implementing Agency: Forest Research Institute Malaysia (FRIM).

Duration: 24 months.