

## Development of DNA gene bank in Sarawak

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Sarawak is among the richest in species estimated to harbour 9, 000 to 15, 000 species (Merrill, 1950; van Steenis 1950; Kiew 1984; Mat Salleh et al. 1992). It is also recorded as high in species endemism. About 40 to 50 % of total estimated vascular plant species are endemic to Borneo and out of this total up to 80% are occur in Sabah and Sarawak (Soepadmo 1995). Ashton, 1982 stated that from 291 known species of Dipterocarpaceae in Borneo 257 species are restricted to Sarawak and Sabah. Though most plant species in this state are well documented and most species are described but scarcely document on genetic information available. Genetic variation is essential for population to be able to adapt to their environment (Darwin 1859).

The establishment of DNA Gene Bank at Sarawak Forest Research Centre in 2,000 under collaborative project of Sarawak and Japanese government was a beginning to an effort to conserve and documenting the genetic variation from plant species throughout Sarawak. It is one of the suitable and efficient ways to preserve representative genetic information. Main activities carried out here are collecting leaves or bark samples, identifying leaves samples to at least vernacular name in the field and confirming the species name at the Sarawak herbarium, sorting leaves for dry sample collection, extracting DNA, storing and sending DNA isolated to collaborative partners, and entering and organize data in the DNA database. Until end of August 2005 the bank has more than 6, 000 DNA isolates extracted from a total of 135 species representing 29 families. These samples were collected from throughout Sarawak from several forest types. Currently the DNA bank involved and assist in three international collaborative projects and carry out one internal project.

Our strategy for near future will be on updating database, developing skill and knowledge, further develop international contacts and collaborations, and carry out more research that can benefit the government, private agencies and local people.

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