

**Preliminary assessment of forest changes in Sungai Rawog Conservation Area,
Sabah**

ABSTRACT

A forest health monitoring programme was established in Sungai Rawog Conservation Area (SRCA), KTS Plantation Sdn. Bhd., in 2018 to understand the significant ecosystem services contributing to ecological balance and human well-being. Eleven permanent sample plots (PSPs) of 0.13 ha each were established, and trees with a diameter at breast height (DBH) of ≥ 10 cm were enumerated and identified during the SRCA scientific expedition in 2018. The PSPs were revisited in 2023, and all the trees were re-enumerated and re-identified. The findings have delivered some evidence that two previously disturbed ecosystems, i.e. dipterocarp and dipterocarp-kerangas, are in various regenerative and successional stages. The eleven PSPs are spread over four distinct forest types: lowland mixed dipterocarp, Kapur Merah, Kerangas and secondary (previously mixed dipterocarp) forests. Over the past five years, there has been a noticeable upward trend in the forest (191.17 ha) followed by a significant decline in shrub cover. The forests are recovering from previous disturbances, a trend evident over the five-year monitoring period from 2018 to 2023. Positive indicators include overall tree growth, the recruitment of diverse species, and a favourable change in above-ground biomass or carbon. Following the statewide biodiversity monitoring programme, the findings derived from this study support the long-term conservation commitments of protecting the integrity and functionality of forest ecosystems in SRCA.