## Mangrove Forest in Kudat, Sabah Malaysia: Challenges of The Mangrove Conservation

## **ABSTRACT**

Kudat is located in the North part of the island of Borneo, with land area of 1,287.2 km<sup>2</sup> or 130,787 ha. Out of the overall total area, 25% or 33,307 ha of area are gazetted under Forest Reserve. Most of the Kudat coastline area is patches of mangrove forest. A total of 19,507 hectares of the total mangroves in the Kudat district have been gazetted as permanent forest reserve under class-V Mangrove Forest Reserve. Mangroves play many important functions such as physical protection to the coastline, important breeding ground of marine life and nurseries, source of socio-economy activity to the local people, natural habitat for the living organisms, home to wide range of flora and fauna. Another function is they provide opportunities for the development for eco-tourism. Some locations in Kudat, which are of high potential for tourism development, are Kg. Sikuati, Simpang Mangayau, Sg. Ranggu, Pulau Banggi, Pulau Malawali and Pulau Balembangan. In 2005, about 2,440 ha or 0.8% of the Mangrove forest reserve in Sabah has been lost mainly due to land conversion for people's settlement. As for Kudat, exploited area recorded are as follow; settlement/urban development (500 ha), aquaculture (15 ha), agriculture and infrastructure (13 ha) - power supply way leave, pipeline, and common tower. Illegal squatters involved about 2 ha and land use conflict of mangrove forest reserve in Kudat were lost to agricultural conversion due to uncoordinated and technical discrepancies of boundaries on the ground. Some challenges in mangrove conservation are, currently there is no management plan prepared for the management of mangroves in Kudat. The management of mangrove area thus far is focusing on protecting the gazetted area under permanent forest reserve under Class V mangrove forest, gradually by the forest district. Apart from mangroves in PFR, there are also some scattered Stateland mangroves which are not quantified, monitored and protected under any legislation. Considering their locations, roles and functions, steps must be taken to gazette existing mangroves inside estuaries and lagoons as Permanent Forest Reserve (PFR). The apparent of boundaries between state land and Mangrove Forest on the ground are vital to be carried out by the authority. Important effort to better manage the Kudat mangroves is carrying out nourishment and planting activities in existing mangroves. Other challenges are to involve

the local communities to conserve mangroves areas, especially thus living nearby the mangrove forest. This paper highlights the status of mangrove, to emphasize the important function of mangrove, and to distinguish the threat and challenge of mangrove conservation in Kudat district.