

## 120

**Present status of mangroves in three different water bodies associated sites in Thirukkivil and Pottuvil, Ampara district**

P Manoharan and T Shripathy  
Faculty of Science, Eastern University, Sri Lanka

Thirukkivil and Pottuvil villages in Ampara district are well known for Ecotourism. Village ecotourism is based on the beauty of the coastal belt and its surrounds which is decorated by flora and fauna within its geographical sites. A predominant flora of the coastal villages, along the water bodies are mangroves and this was either fully or partially devastated by tsunami tidal waves in 2004. Studying the present status of mangroves is important for the ecotourism since it enables the present plant forms and by replanting the appropriate species. The aim of the study was to evaluate the present status of mangroves, in the three selected water bodies associated sites namely Maranakandy River in Thirukkivil, Kudakali Lagoon & Dhua Lagoon in Pottuvil, Ampara district, which was carried out in July 2006.

An impact of tidal waves on mangroves and its associates was not clearly evident in Maranakandy River, where an impact was clearly seen in Kudakali lagoon, but least was noted in Dhua lagoon, at the time of study. This impact difference possibly by the distances of sea point's from the sites and the types of mangrove vegetation the sites had at that time. Maranakandy River was under continuous exploitation by local communities compared to Kudakali lagoon and Dhua lagoon, which located next to each other, but at a distance and an undisturbed state. Both true and associated mangroves species were naturally segregated in all three sites. Predominant species was *Rhizophora* sp, except in Dhua lagoon. In Dhua lagoon, along the sites, but opposite to the sea, root stumps and prop roots were left out as evident destructive parts of *Rhizophora* sp. by tidal waves impact and no species were seen in the premises. *Rhizophora* sp. was grown adjacent and along the sites in Maranakandy River and Kudakali lagoon, where *Excoecaria agallocha* and *Bruguiera gymnorhiza* were at its immediate right backyard, respectively. *R. mucronata* showed a stunted growth in Maranakandy River, where as *R. apiculata* recorded in Kudakali lagoon was overgrown to a height of 6 m. As such, a morphological habit of *R. apiculata* possibly served as a colliding object for the impact of tidal waves in Kudakali lagoon and thus impact of tidal waves was greater on *R. apiculata*, mainly at the entry point of sea water. Tall grown *B. gymnorhiza* was only recorded in Kudakali lagoon and impact of tidal waves were negligible, since *R. apiculata* was in the frontier line and sacrificed first while safeguarded the *B. gymnorhiza*. Natural regenerations by numerous *B. gymnorhiza* seedlings were seen and being occupied in the devastated sites of *R. apiculata* in Kudakali lagoon. Replantation of *R. mucronata* seedlings were noted in Maranakandy River, except in Dhua lagoon. Thus, on site basis, a planned replantation of mangroves is necessary to uplift the socio-economic life of three sites in the district, perhaps ecotourism.