ABSTRACT

RIDAHATI RAMBEY. Local Knowledge Agroforestry System for Mindi (Melia azedarach L. (Case Study in Selaawi Village, Talegong Subdistrict, Garut, West Java). Under supervision of NURHENI WIJAYANTO and ISKANDAR Z. SIREGAR

Melia azedarach L. is one of the fast growing species which is potential to be developed in community forests. This species is found to occupy most agroforestry lands in Selaawi village (Garut, West Java). Research was conducted in three stand types, namely: (i) pine stand (as reference), (ii) old growth mindi stand, (iii) young growth mindi stand with objectives to: (1) determine site quality of mindi agroforestry, (2) explore the local knowledge on silvicultural techniques of mindi agroforestry, (3) formulate the strategies for development of mindi agroforestry and determine the genetic and morphology diversity of mindi in Selaawi Village. It was found that site quality in young growth mindi stand was better than that of pine stand and old growth mindi stand. There are several tree species dominating the sites, namely Melia azedarach L. (43.37%), Paraserianthes falcataria (23.20%), Maesopsis eminii (15.35%), Manglieta glauca (9.83%), Eucalyptus spp (4.68%), Anthocephalus cadamba (1.62%) and other wood species (1.96%). Local knowledge of mindi agroforestry includes seed procurement, plant propagation, land preparation techniques etc which may be practiced also in other regions. Information obtained from this research could be used to formulate appropriate strategies for sustainable agroforestry management. Microsatelit marker were used to assess the genetic variation. The results showed that the genetic variation of mindi in Selaawi Village was high ranging from He 0.379-0.439.

Keywords: Melia azedarach L., Local Ecological Knowledge, agroforestry, genetic variation