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“Development on the margin”

## Natural Dry Forests: Towards Combating Desert Like Formation in the Central Dry Zone Area, Myanmar

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### Abstract

Dry forests in Myanmar play an important role for the local communities by providing basic needs as well as assuring the stability of microclimate, land productivity and combating desert like formation in the dry zone area of Myanmar. The study was conducted with the main objective of specifying current situation of natural dry forest in terms of tree species composition, horizontal and vertical stand structure and natural regeneration. The measurements (diameter at breast height, total height, and species) were done in the three different site conditions (*i.e.*, primary forest, secondary forest, and degraded forest) of the same forest type located in the central dry zone area of Myanmar. The data from a 0.4 ha cluster sample plot were analysed using species-area curves approach, important value index (IVI), diversity indices, Weibull 2- and 3- parameters function for diameter distribution and IUFRO classification scheme for height distribution. Species-area curves revealed the sampling area was enough for vegetation analysis. The two most dominant species (*Terminalia oliveri* and *Tectona hamiltoniana*) were denoted by the important value index and they have a regular horizontal distribution. The diversity indices indicated that the species diversity and heterogeneity were mainly depended on nearness to the adjacent forest stands. The natural regeneration of the two most dominant species as well as some associated species was sufficient for the sustainability of dry forests in the long term. Natural dry forests are going under a sustainable way and they play an important role in combating desert like formation in the central dry zone area of Myanmar.

**Keywords:** Dry forests, important value index, species diversity, species-area curves, stand structure