

The focus of the paper was to use an ethnobotanical approach to identify for conservation, priority medicinal plants used for respiratory diseases in Lake Victoria region of Tanzania. Recent incidences of respiratory diseases profoundly affect plant diversity as they lead to selective consumerism of plant species. Trend of respiratory diseases in Lake Victoria region is alarming due to highest HIV prevalence. Likewise, a trend in exploitation of medicinal plants for management of respiratory diseases is alarming. Open ended questionnaires and focus group discussions were used for collecting ethnobotanical information from 37 traditional health practitioners on the use of herbal remedies against various respiratory diseases. Guideline by the international union for conservation of nature (IUCN) medicinal plant specialist group was used to assess qualitative distribution of indicator species through ethnographic methods. A protocol for conservation assessment management plan was used to prioritize limited number of species for *ex-situ* conservation. Ethnobotanical parameters, *value – index* and *legislation-index* were used for scoring in two-dimensional manner. Scoring analysis highly prioritized non-timber plants including *Rubia cordifolia*, *Crassocephalum manii* and *Pavetta crassipes* for conservation over timber species. From the findings, it was recommended that conservation assessment of medicinal plants could be appropriately achieved by considering local uses of plants in participatory manner.