**MINOR RESEARCH PROJECT**

Assessment and Mapping of riparian forest vegetation of the

Kechery river basin, Kerala

2241-MRP/15-16/KLCA019/UGC-SWRO dated 31 March 2016

EXECUTIVE SUMMARY

Riparian zones are the interfaces between terrestrial and aquatic ecosystem. As ecotones, they encompass sharp gradients of environmental factors, ecological processes and plant communities. The Kechery Riveris a west flowing river which is also known as Aloorriver. It is originated from Machad hills in Western Ghats at an elevation of 365 m above msl and flows westward in Thrissur district of Kerala. The river is 51 kilometres in length and empties to Arabian Sea at Chettuva Lake. The study was conducted during 2016 – 2018. Plants were enumerated according to APGIII and nomenclature citations followed IPNI and The Plant List. Endemism, distribution, phytogeography and RET status were based on Red data book of Indian Plants and IUCN. Biological spectra, landform and functional vegetation type were analyzed from 22 transects (1km x 3m) by CCA with PC-ORD ver. 4.14. Location for RET species and elevation of transects were taken by using Garmin 72 GPS. The diversity, richness, phytosociology, were analyzed. The riparian flora of Kecheri river basin composed of 276 angiosperms belongs to 82 families and 13 Pteridophyte belongs to 7 families. In the present study recorded the dominant family is Fabaceae (33 species). The vegetation profile of Kecheri river basin includes 117 herbs, 40 shrubs, 40 climbers and 92 trees. The angiospermic flora of the Kecheri River basin has 8 endemic species, *Helicantheselasticus*, *Crotalariaclarkei*. Among the 8, 3 are endemic to Southern Western Ghat; *Artocarpushirsutus*, *Cinnamomummalabatrum*, *Ficusarnottiana* and 2 are endemic to peninsular India; *Canthiumrheedei*, *Chionanthus mala-elengi*. A total of 15 Least concern species observed from the region. From the species richness data, the riparian stretches has uniform diversity ranges from 3.5973 - 4.1064. The Simpson’s dominance index (D) of three stretches varies from 0.1957 - 0.1073. The riparian flora of Kecheririver is species rich. However the riparian forest stretch are highly fragmented due to antropogenic activities. Conservation and restoration of this threatened species ecosystem is an urgent need.