**Drainage Network Characterisation of Idukki District**

I am Sumesh Kumar M Y, Team Soil Conservation, Idukki District. Official of Department of Soil Survey and Soil Conservation, Govt. of Kerala, includes only one member, and I am very glad, enthusiastic and proud to participating in this Map India Project.

I have prepared the map showing the Drainage network characterisation of Idukkii District in Kerala. Out of 44 rivers in Kerala, Idukki district has 5 river basins as Periyar, Moovattupuzha Ar, Manimala, Pamba and Pambar drained by the respective rivers. The major Hydro electric project in India named as Idukki Hydro electric Power projects were constructed in Periyar River. This Drainage map with the major infrastructure for effective use of water resources are very useful for the natural resource management and Watershed planning for sustainable development and budgeting of the resources.

**Map preparation Procedure:**

We have downloaded two *Cartodemversion -3R1* file from Bhuvan site for Idukki District and re-project the dem file in QGIS. Using q.gis deskop with grass software the reprojected dem is merged and resampled. Then the file is masked to the required boundary area of Idukki district. The file is then processed with fill sink options in GRASS GIS for filling the depressions in the DEM. The filled DEM is further processed for channel network and drainage characateristaion to derive the drainage systems and the drainage basins within the boundary of Idukki district. Through open street map services in Open layers plugin in QGIS we draw places, roadsand then further categorize drains and rivers under the boundary of the Idukki district. After the database preparation, map is Composed through map composition option in QGIS with layout size fixed as A3 sheet and necessary map attributes were also shown frame scale as 1:375000

I am submitting my drawing before the Project Team Management of IITB - ISRO- AICTE Mapathone through Moodle Account and looking forward for cooperation with the Project Team.

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