Hydro-geo morphological and ecological studies of certain Lentic water bodies in the mid Western Ghats of Karnataka with special reference to Shimoga Taluk, Karnataka

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ABSTRACT

Mid Western ghat in Karnataka supported many west flowing rivers and river system. The river systems contribute large quantities of surface runoff especially during rainy season, from June to October due to heavy rainfall and varied conducive topography.

The river systems and reservoirs also supported minor and major water bodies called as tanks, reservoirs and small ponds. Shimoga Taluk is situated in semi malnad plain region and part of this Taluk lies in malnad area. Geologically Shimoga taluk comprises dominantly granites and covered with metabasalt, magmatite with gneisses and quartzite's of Achaean age (>3500milion years) to sub recent age. Four water bodies were selected to study the land use and land cover changes. All these are located gently and moderately sloping topographical area. These four water bodies fall under agricultural double cropland. Maps showing forest cover, drainage network, soil types, geology, erosion pattern, slope and drainage network with land use land cover pattern are presented in the text.

Physico-chemical data reveals that tank-1 &2 shows oligotrophic character and 3 & 4 represents mesotrophic condition. Despite Aquatic macrophyte diversity also studied. The aquatic plants comprises of 4 free floating, 7 floating, 5 submerged, and 20 semi aquatic plants were recorded.