

Theme 7: Lakes, rivers, estuaries: water quality, biotic resources, sustainable management

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SUSTAINABLE MANAGEMENT OF WATER RESOURCES: A STUDY OF BUDHA PUSHKAR LAKE NEAR AJMER, RAJASTHAN

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Water is a scarce commodity in arid and semi-arid regions where it can play a vital role in sustenance of life. Budha Pushkar is a holy, natural, freshwater lake situated in semi-arid regions of Rajasthan. It is situated about 13km in north west of Ajmer Rajasthan in a desolated sandy area. The geomorphology of the area is mainly comprised of hillocks and sand dunes. Budha Pushkar is some sort of seepage lake where water table is near about 10 feet deep. Sand fall is common phenomenon to the lake. Huge amount of sand, transported through winds from nearby sand dunes, gets deposited at the bottom of the lake making it shallower. The rate of evapo-transpiration is comparatively higher when temperature reaches upto 46^oC during hot and windy summers. The average annual rainfall in the state is below 500mm. Temperature far exceeds precipitation. Water table in catchment is around 40-50m deep. Lake is severely affected with natural as well as anthropogenic factors. The main causes of lake degradation are climatic factors, overgrazing, over drafting of water resources from lake and its catchment, siltation and agriculture runoff. Intensive agriculture in catchment of lake is another major cause of water pollution. The present communication deals with the status of water body situated in arid and semi-arid regions and assess the quality as well as the quantity which is of prime concern to the sustainability of livelihoods in desertic regions of the country.

Key Words: Budha Pushkar lake, Arid, Semi-arid, Rajasthan.