

Declining trend of water inflow in the dams of rajasthan state

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Abstrak

Rajasthan is a semi arid state with the highest of the geographical area (343,000.00 square km) of the Indian subcontinent. Annual rainfall variation is very high over the state ranging from 100 mm to 1000 mm from west to south/east. Matter of water resources planning is of prime importance for the state. There are 237 blocks, out of which 200 blocks are declared as dark zone due to over exploitation of ground water. In these circumstances, it becomes necessary to plan the storage and uses of surface as well as subsurface water (conjunctive use) with maintaining the ecological sustainability. Surface water reservoirs are becoming dry year after year. It was observed from the annual storage data of the dams that water inflow is declining year after year due to various reasons like changes in land use and land pattern, change in hydro geological conditions, changes in environmental factors e.g. temporal and spatial distribution of rainfall, indiscriminate infrastructural development. Due to less water inflow in the dams and increase in the number of dark zone blocks, state is facing the water stress problem. With the increasing population, it will become more severe with the passage of time. Therefore, an effort is being made through this research to test the hypothesis whether there is an appreciable change in water inflow in the dams of Rajasthan state. A total of 115 nos of major & medium dams in the state have been selected by cluster sampling to test the hypothesis. Chi Square test has been conducted for testing the hypothesis and found that there is declining trend of water inflow in the dams and dependabilities of the river basins have been reduced.