GROUNDWATER RESOURCES MANAGEMENT IN MYSURU DISTRICT, INDIA

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Abstract

The Mysuru district covering an geographical extent of 6845 Sqkms with a population of over 3 million. The district consists of 7 taluks with 14 major and 4 minor watersheds in the Cauvery river catchment area. The Groundwater levels are being monitored once in a month since 1972 till today in 59 Observation bore wells in various parts of the district. The seasonal fluctuations are tabulated to know the rise and fall and the trend of the ground water levels. The rain fall data is monitored 39 stations and the average monthly rainfall is accounted. The various data are collected from the line government departments viz, agriculture, Horticulture, Major and minor irrigation departments, statistical department and RWS etc. Based on the groundwater resource estimation committee Report 1997, the groundwater resources in Mysuru district was estimated during the year 1999, 2004, 2009, 2011, 2013 and 2017 respectively. Both Rain fall infiltration method and Water table fluctuation methods were adopted. The ground water resource estimation was made on watershed as unit and the data apportioned to the taluk as administrative unit. Based on the percentage of groundwater extraction, the taluks were categorised as SAFE (0-70%), SEMI CRITICAL (>70%-90%), CRITICAL (>90-100%), OVER EXPLOITED (>100%).

As per the Dynamic Groundwater Resources of Karnataka as on March-2017, the net ground water availability is 73,122ham, the net ground water draft for all uses is 37,493ham, allocation for future domestic & industrial supply is 13,185ham, and the net ground water availability for the future irrigation purpose is 33,190ham. Mysuru taluk is categorized as a SEMI CRITICAL and remaining 6 taluks are categorized as SAFE. Further, the Government of Karnataka brought the Karnataka Ground Water (Regulation and control of Development and Management) Act 2011 & Rules 2012 to control the over exploitation of ground water in the state. The Geologists are selecting sites for the construction of Artificial Recharge Structures and rendering technical advice for roof top rain water harvesting & groundwater conservation methods.