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Groundwater in Dharmapuri District

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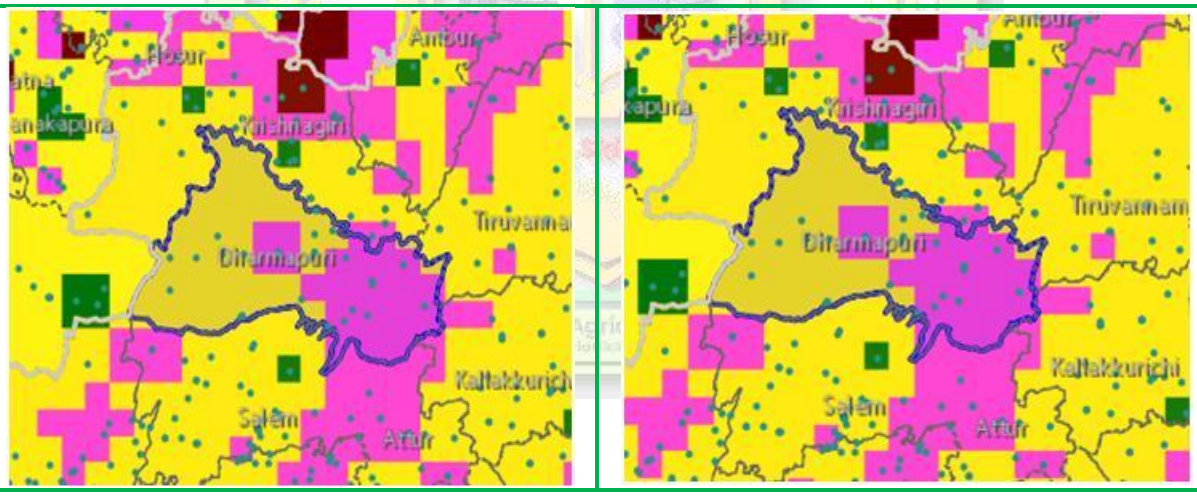
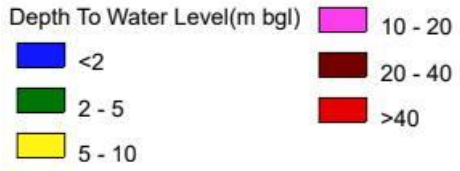
Many people are concerned about what happens to rainwater when it rains. If the land is silty, all the rainwater that falls flows towards the ditch and gets wasted. All the water that flows together turns the rivers into floodplains. When this much water flows, it is not possible to build dams everywhere to control it. If the land is ploughed and cultivated, the land will absorb the rainwater when it rains. The water absorbed in this way will go to the bottom of the land little by little and become groundwater. This article explores the various groundwater sources and its level in DHARMAPURI district.

Study Area: Dharmapuri is situated 12.12° N 78.26° E, which is bounded by Tiruvannamalai and Villupuram Districts on the east, Salem District on the South, Krishnagiri District on the north and Kaveri river on the west. The famous Hogenakkal water falls is in Dharmapuri district.

Ground Water: According to a survey taken by the INDIAN WATER INFORMATION SYSTEM(INDIA-WRIS) the groundwater level in Dharmapuri district is studied. By comparing the groundwater level in 2004-2005 , the present day GW level is drastically decreased due to heavy consumption of water for both domestic and industrial uses.



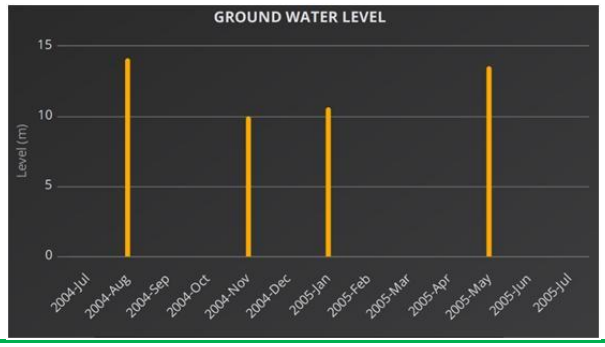
This pictures represent the ground water in Dharmapuri ground water level depth in 2004 to 2005 and 2021 to 2022.



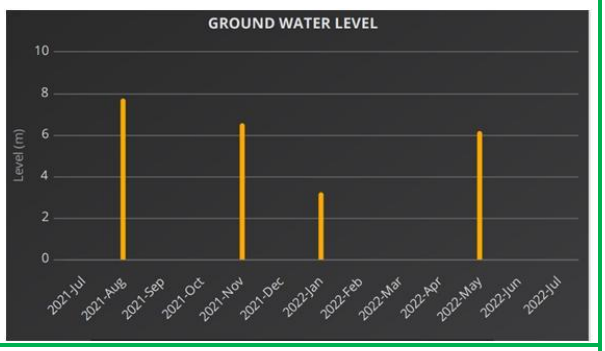
The colours represent the depth of ground water level

- Blue colour is less than 2 meters below the ground level
- Green colour is 2 to 5 meters below the ground level
- Yellow colour is 5 to 10 meters below the ground level
- Pink colour is 10 to 20 meters below the ground level
- Brown colour is 20 to 40 meters below the ground level
- Red colour is greater than 40 meters below the ground level

In Dharmapuri district the maximum colours repersent are yellow and pink. The depth of ground water in Dharmapuri 5 meters to 10 meter represent yellow colour and 10 meter to 20 meter represent pink colour.



Graphical represent of ground water level in 2004 to 2005



Graphical represent of ground water level in 2021 to 2022

Ground Water for Irrigation Purpose Suitable or Not?

To test whether the ground water is suitable for irrigation or not ,an analysis on the sodium absorption ratio (SAR) is done. The SAR value less than 10 indicates that the water is excellent for irrigation and the range of 10 to 18 is good for irrigation. But the range of 18 to 26 is doubtful for irrigation and above 26 the value is unfit for irrigation.

In Dharmapuri district the measured sodium absorption ratio is 30 % which is good for irrigation the SAR ranges between 10 to 18. Remaining 70% is doubtful for irrigation where the SAR ranges from 18 to 26, which is mainly due to the disposal of domestic waste and rock formation in nature.

Conclusion

GROUNDWATER plays a critical role in our day to day life. In Dharmapuri district TWAD measure the ground water level in 37 wells of post-monsoon and pre- monsoon .2017 to 2021 between 5 years the ground water level in pre- monsoon is12.4 and post monsoon is 10.2.so we can note that the groundwater level is drastically decreased. People should be aware that the amount of water which is consumed should be restored .That should be the mandatory goal of the mankind.

THINK WISE; ACT WISE

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