



## A GROUND - WATER LEVEL OF YAVALI VILLAGE IN MOHOL TAHSIL : A GEOGRAPHICAL STUDY

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On the surface of earth & under there is huge water repertory but out this 1.35 million ghan km water repertory 97.20% pure water 2.15 % water in the form of ice & 0.64% water is under the earth means only 0.01% water out total repertory is usable math present condition. It is make lees re-soirée . Rain is the main source & water. On earth annual rain average is 999 m.m but there is maximum dissimilarity in its distribution. On the 25 % part of earth scale rain fall is less than 250 mm so this area is identified as a dry area. On 30% part rain falls 250 to 500m.m. means on 55% ground part there is water problem due to less rainfall. water is excellent resources and it is used for drinking, industrilization & agriculture & animals. From the middle of 20<sup>th</sup> cw. There is 10% growth in use of water large population. changed life style, modern agriculture, technology & growing industrialization the need of water grows usually from the worlds water usage 70% water is used for farming, 22% water for industrialization & 8% water is used for drinking & other reasons. Do to health & environment awareness water quality is heightened.

The importance of water-management is grown but with the speed of development limitless usage of soil water & civilized industrial pollution of water-sources become a serious & new problem so there needs to research in the planning water. It's meaning is that water is the gift to us from nature but there is no planning & its so in this Research easy we try study the Ground-water level of Yavali village in Mohol Taluka in solapur dist .

**Objectives:** 1) To study the rain-fall distribution in solapur district. 2) To achieve the information of ground –water level in solapur district. 3) To explain the relationship between ground-water level & rain-fall. 4) To check the geographical area for re-creation of ground-water & planning it.

**Study Area :** The Geographical location of Yavali Village in Mohol Taluka Solapur District (Maharashtra) in on 17° 45' North latitude & 75° 38' East latitude &

form this village on the East-North side there is place of Mohol Taluka. Yavali village is situated on the North –West side of Mohol a dry area. It was on the N.H.9 North side but is undeveloped. This village height form sea-level is 473 m.

**Data Collection and Methodology :** For the present research easy the needed primary data collection is collected through direct observation, area study, interviews & with the help of questionaries & secondary data was collected through Grampanchayat , Talathi office, Tahsil Office of Mohol, Agriculture department and it is displayed through chart & maps.

**Geographical Situation of Solapur District :** Solapur district is know as drought prone area in district in Maharashtra with it the middle-east part is a dangerous drought prone part . Solapur district is a drought prone area in it rain-fall is 548 mm It is not equal in all part. We take 10 example measure centers registers for study. Last 50 years average data Table is given below. On this table it is seen that the rain-fall in Solapur District is not equal in all . so in Solapur, Barshi, Pandharpur, Malshiras & Akklokot there is more than average rain-fall & center east middle Madha, Mohol, Karmala, Sagola & Mangalwedha there is a rain-fall between average (450m.m to 550 m.m) & the reaming part there is better rain. On this central middle part of solapur district rain-fall is more less & the Mohol Taluka is drought prone area means less quantity soil, less rain-fall but more over with the help of 1972's human efforts through Ujani canal & its left canal water-conservation area is grown. Out of total cultivation 35% area is water-conserved . Yet the Yavali village is depend on nature.

### Ground- Water Level in Solapur District.

In the present research project we take into consideration the Talukawise Ground-water level in solapur district. Last Five years soil-water levels distribution given in Table No. 2 On the above table it is seen that Barshi, Mohol, Sangola, these three Taluka's ground-water level down much below. The

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ground-water level of these Talukas is -4.55 m, -5.38 m, -6.79 m serially bellows. On this it is seen that last 5 years soil water level bellow down in solapur district In take to the consideration of the districts Barshi, Mohol & songola Taluka's soil water level down most below of the average. It we study table 1 & 2 it is seen that in solapur district west sides (Malshiras, Karmala) ground- water level is less then average comparison e.g Mohol, Barshi, Madha, Taluka's ground-water level is more lessed than average. On this the telling rain & ground- water level has opposed relations because the water & rain on surface is not useful for heightening ground- water level or the water of chart part is blown away so it we study the total blowing water in Solapur it is more in Mohol, Barshi, Sangola Taluka. In this Taluka there are some ways of growing water level e.g water conservation, water tanks etc.

On the available table it is seen that rain scale in Solapur district facilities of water conservation & water we has not complimentary relations because the rain scale in east part of district more than average & soil water level is much below for taken register & west side's ground-water level is more than Solapur district average means it is need to study the wastage of water & geographical water level so we steel Yavali as a sample a geographical place of less rain-fall area &

limited water conservation facilities form north west side & Mohal Taluka. While selecting it we think about its geographical things. Yavali village is situated in north –west side of Mohol Talukas droughtpone area. The reason & its selection is that it is situated in drought pone area & also north side of N.H.9 but it is undeveloped. Its agri production capacity is not gowned. Its height form sea-level is 473 m The annual rain-fall average of this village is 410 m.m. The north-west side & this village there is water thank built m 1986. The water comes mailroom surrounding area. Its area is 15.47 sq.k.m Its water storing capacity is 42.37 million ghan ft. The water – conservation capacity of this tanks is beneficial for is 35.40 million ghan foot. This tank is beneficial for maintaining ground- water level & useful for village water conservation facilities. It was studied through the soil water level & their was As Pointed in the present table below the water tank we see the present water level & the summer water level & register it on this register it is seen that there is no difference bet wells water level in summer & present . The wells water level condition is good though the water is it is out tree queenly on this it is says that it u.e. develop the soil water level of village like Yavali there is need to do the water conservation world in naturally imported area.

**Table No.1 Rain-fall measure center & rain-fall**

Sr.No.	Center Name	Rain –fall
1.	Solapur	677.7 m.m
2.	Barshi	657.4 m.m
3.	Madha	514.6 m.m
4.	Pandharpur	610.8 m.m
5.	Malshiras	581.4 m.m
6.	Sangola	536.5 m.m
7.	Karmala	540.3 m.m
8.	Mohol	447.9 m.m
9.	Akklkot	689.4 m.m
10.	Mangalwedha	448.3 m.m
	<b>Average</b>	<b>538.3 m.m</b>

**Source :** Senior Geologist, Ground water Survey & Development Agency (2009)Solapur

**Conclusion :** 1)While doing the geographical study of solapur district the scale of rainfall is lessed form west to east 2)Though the average of rain fall is high in east side in district the water level was in bad condition in middle east part of Barshi, Mohol, Sangola. 3)As according to the geographical departments numbering though the west side part is less rain fall its

soil water level (except sangola) is not had condition comparatively. 4)For developing ground water level it needs to do the experiment of refill It is easy way so for it selecting the geographical place like Yavali village there needs of refill. 5) It is need to take the works of water conservation & refill for developing the ground water level.



**Register of well-water level in Talukawise in solapur district. (Table No. 2)**

District	Taluka	Total of observed wells	Nov. 2009 average water level (mts)	Last 5 years Nov. average water level (mts)	Last 5 Years compare to Nov. 2009 water level (-/+)
Solapur	N.Solapur	09	7.83	5.59	-2.27
	S.Solapur	18	7.81	5.63	-2.18
	Barshi	26	10.26	5.71	-4.55*
	Madha	18	10.47	7.40	-3.07
	Pandharpur	24	7.85	5.79	-2.07
	Malshiras	20	6.30	4.54	-1.76
	Sangola	19	14.23	7.44	-6.79*
	Karmala	26	5.54	5.80	-2.74
	Mohol	18	10.67	5.29	-5.38*
	Akkalkot	23	8.24	7.15	-1.09
	Manglwedha	11	7.36	4.88	-2.38
		<b>Total</b>	<b>212</b>		
	<b>Average</b>		<b>9.13</b>	<b>4.92</b>	<b>-3.12</b>

Source : Senior Geologist, Ground Water Survey & Development Agency, Solapur (2009)

**Ground- water level and wells in Yavali Taluka Mohol**

Sr.No.	Farmers Name	No. of Wells	Depth of wells	water level of wells (m)	water level in summer (m)
1	Shri Baban Mahadev Raut .	1	13.50	9.40	6.87
2	Shri Anil Tukaram Mali	1	18.65	12.35	9.66
3	Shri Bhagavan Kisan Dalavi	1	12.20	8.97	6.10
4	Shri Rajendra Dagadu Mule	1	11.00	8.23	6.91
5	Shri Anil Shivram Karande	1	10.24	7.61	5.32
6	Shri Balasheb D. Shirsat	1	9.75	6.20	4.27
7	Shri Lahu Baban Jadhav	1	15.25	11.44	8.32
8	Shri Bharat Shivaji Shinde	1	13.12	10.22	7.73
9	Shri Mohon Kisan Dalvi	1	8.85	5.67	3.55
10	Grampanchayt Yavali	1	19.70	6.43	13.20

Source : Complied by Authors (2009)

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