



## WATER RESOURCES DEVELOPMENT IN SOLAPUR DISTRICT: A GEOGRAPHICAL STUDY

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### Abstract:

Water is a limiting factor for crop production and Water Management is key to development of sustainable agriculture for both irrigated as well as rain fed areas though there is prohibitive cost of irrigation development including high costs of reclamation of soils damaged through poor water management and its environmental consequences are seriously limiting the extension of irrigation.

discussion reveals that there are different water conservation projects are complied in Solapur district because many tanks of Solapur district have very low rainfall and water scarcity problem is found every year .so hence the water resources conservation is basic need for different purposes. Percolation tanks are plays important role in water conservation schemes.

### Introduction:

Water is important resource to our economy as an essential requirement for drinking, industry, agriculture and power generation. Many parts of India are facing the water scarcity problem. In their areas the water conservation and management is essential activity. Water conservation means the action taken to reduce water use by improving the efficiency of various uses of water.

Solapur district is located in drought prone area of Maharashtra, hence this district is facing drought problem every year .There fore need of water conservation and management is essential in Solapur district.

### Objectives of the Study

1. To study the water resources conservation and management projects adopted in Solapur district.
2. To give suggestion and recommendation for water conservation and management.

### Study Regions:

Solapur district is located between 17°10 to 18°32 north latitude and 74° 42 to 76° 15 east longitudes. It is bounded by Ahamdangar and Osmanabad districts on north. Osmanabad district and Andra Pradsh state in the east, Karanataka state and Sangli district in the south,Pune and Satara district in the west, it lies in basins of Nira , Bhima ,Sina and Man river .for administrative purpose the district is divided into eleven Tehshils. Solapur is one of the drought prone district of Maharashtra.



### Data Base and Methodology

To study the present status of Water Conservation and Management we collect the secondary data from Government Irrigation Department and Agricultural Department of Solapur district. Different cartographic techniques are used for analyzing and representation of statistical data.

### Need of Water Resource Conservation:

Water is a limiting factor for crop production and Water Management is key to development of sustainable agriculture for both irrigated as well as rain fed areas though there is prohibitive cost of irrigation development including high costs of reclamation of soils damaged through poor water management and its environmental consequences are seriously limiting the extension of irrigation.

Water conservation in irrigated agriculture can be achieved by

- I) Reducing conveyance losses.
- II) Rainfall conservation
- III) Efficient canal water management
- iv) Reducing water demand and reuse of waste water

Considerable savings in water [about 30to 40 percents recent} can be achieved by adoption of sprinkler drip /micro sprinkler irrigation in water scarcity areas having good conditions conducive to their application {Crabtree *et al.*,1985 aujlaet *et al.* 1991}

### Scheme of Water Conservation In Use Of Solapur District

Percolation tank, lift irrigation project, agro forestry, com part mental bHd+ng, nala aiding, farm pound, soil bilding, cement bilding, hariyali project, restorage of well and micro irrigation sprinkler, drip irrigation etc., these are main scheme of water conservation in Solapur District and following five scheme have been taken of the present study .

### Selected Water resources conservation 2010-2011 ongoing Schemes

#### Table no -1

\* Table no -1 show that the different water conservation schemes which are completed

up to April 2011 .According to this data percolation tanks are maximum in Solapur district There are 464 percolation tanks in Sangola taluka and only 44 tank in Pandharpur taluka .as well as village tank Kolhapur type Bandhars are also found in Solapur district up

to April 2011, 2224 Percolation tanks, 185 Village tank 735 Kolhapur type Bandhars and 36 Bhumi Bandhars, in Solapur district.

\* As per table -1 maximum water conservation projects are found is Sangola taluka and minimum in Pandharpur taluka.

**Table no -1.** Selected Water resources conservation scheme complied up to April 2011.

Sr. No.	Tahsil	Percolation tank	Village tank	Kolhapur type bandhare	Bhumi Bhandhare	Lift irrigation Scheme	Total
1	Akkalkot	24	-	1	-	-	25
2	Barshi	15	-	4	-	-	19
3	Karmala	1	-	5	-	-	6
4	Madha	13	-	10	-	-	23
5	Malshiras	5	7	4	-	-	16
6	Mangalwedha	10	—	1	-	-	11
7	Mohol	109	3	4	-	-	116
8	North Solapur	21	-	-	-	-	21
9	South Solapur-	18	-	-	-	-	18
10	Pandhar-pur	8	-	-	-	-	8
11	Sangola	-	4	-	-	-	4
Total		224	14	29	-	-	267

**Table no. 2.** Shows that the ongoing water conservation projects in Mohol taluka there are 116 ongoing projects and total 269 in Solapur district.

Sr. No.	Tahsil	Percolation tank	Village tank	Kolhapur type bandhare	Bhumi Bhandhare	Lift irrigation Scheme	Total
1	Akkalkot	213	8	77	-	3	301
2	Sarshi	255	12	103	-	-	370
3	Karmala	150	20	51	05	-	226
4	Madha	235	-	68	04	-	351
5	Malshiras	206	30	86	07	-	329
6	Mangalwedha	184	11	54	08	-	257
7	Mohol	317	07	66	-	01	391
8	North Solapur	69	02	53	-	-	124
9	South Solapur	87	01	62	-	-	150
10	Pandharpur	44	02	39	06	-	91
11	Sangola	464	48	76	06	-	594
Total		2224	185	735	36	04	3184

## Conclusion:

Above discussion reveals that there are different water conservation projects are complied in Solapur district because many tanks of Solapur district have very low rainfall and water scarcity problem is found every year .so hence the water resources conservation is basic need for different purposes. Percolation tanks are plays important role in water conservation schemes.

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