ISSN
(Print) 2320 – 6446, (Online) 2320 – 8341

SUSTAINABLE WATER RESOURCE DEVELOPMENT IN SATARA DISTRICT: A GEOGRAPHICAL STUDAY

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ABSTRACT:

Water is important resource to our economy as an essential requirement for drinking, industry, and agriculture and power generation. Many parts of India facing the water scarcity problem In there areas the water conservation and management is essential activity. Water is essential for all life and used in many different ways, It is also a part of the larger Ecosystem in which the reproduction of the bio Diversity depends. Fresh water scarcity is not limited to the arid climate regions only, but in areas with Good supply the access of safe water is becoming Critical problem. Lack of water is caused by low Water storage capacity, low infiltration, larger inters Annual and annual fluctuations of precipitation (due to monsoonal rains) and high evaporation demand. Safe water supply and environmental sanitation are vital for protecting the environment, improving health and alleviating poverty. Water conservation means the action taken to reduce water use by improving the efficiency of various uses of Satara district is located in drought prone area of Maharashtra hence this district facing drought condition in every year .therefore need of water conservation and management is essential Satara district.

KEY WORDS:- water conservation, Agricultural Resources, water management

INTRODUCTION:

Water is important resource to our economy as an essential requirement for drinking, industry, and agriculture and power generation. Many parts of India facing the water scarcity problem. In there 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.

Satara district is located in drought prone area of Maharashtra hence this district facing drought condition in every year. There fore need of water conservation and management is essential in satara district

STUDAY AREA:

Satara district is situated in western part of Maharashtra state. There are the district lies between 17.5 degree and 18.11 degree North latitude and between 73.33 degree and 7 4.54 degree East longitudes. The district is completely landlocked being surrounded by Ratnagiri district on the West, Sangli district on the south, Solapur on the East, Pune on the north and Raigad on the North West. It covers 10,480 sq kms. Most of the central satara district's area falls in the river Krishna basin and limited area falls in the river Bhima basin.

Satara A east west extent of 135 km and a north south extent of 112 km. The district is divided into seven Sub Division and eleven administrative sub units (tahsils) - Satara, Wai, Khandala, Koregaon, Phaltan, Khatav, Man, Karad, Patan, Jawali and Mahabaleshwar.

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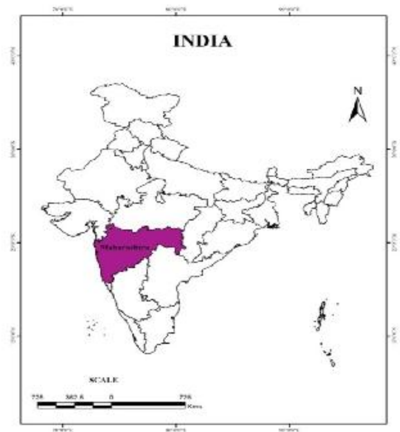

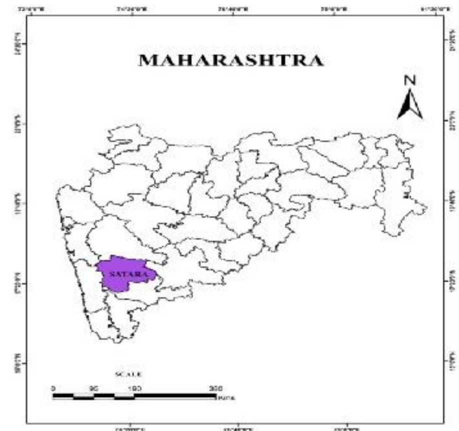

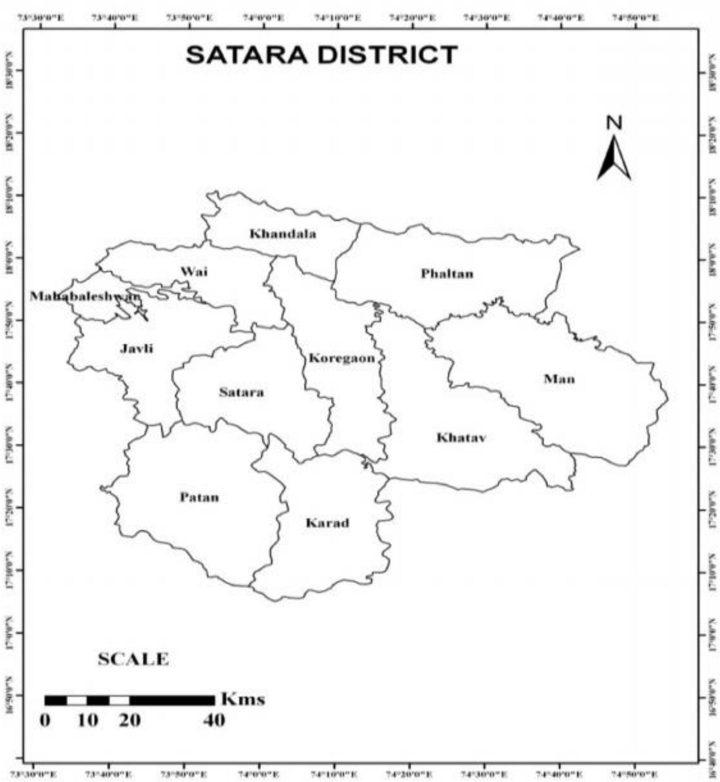

OBJECTIVES:

In view of the above, the specific objectives of the present study to.

1. To study the water conservation under various schemes in satara district.
2. To find out planned projected irrigation in drought prone area in satara district.

DATA BASE AND METHODOLOGY

The present study is based on the secondary data .To study the present status of Water Conservation and Management collect the secondary data from Government Irrigation

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Department and Agricultural Department of Satara 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 well condition conductive to their application {Crabtree et,al,,1985 aujlaet all991}

Scheme Of Water Conservation

Satara is leading district in agricultural point of of view. There are various schemes adopted in satara for conservation of water such as Percolation tank, lift irrigation project, agro forestry, compart mental bilding, nala bilding, 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 Satara District. In the Present research paper above mentioned schemes are considered.

Completed water conservation schemes and irrigated area in 2014

Explanations:

Sr. No.	Tahsil	Total irrigated area under various water conservation schemes	Water conserved under various schemes (tcm)	Total conserved Water. (tcm)
1	Satara	4149	15.96	15.64
2	Wai	NA	NA	NA
3	Khandala	982	6.88	5.80
4	Phaltan	3372	7.88	7.64
5	Man	2611	13.45	7.62
6	Khatav	2737	12.87	12.02
7	Korageon	2429	10.64	9.94
8	Javali	NA	NA	NA
9	Patan	5584	14.03	14.03
10	Karad	5122	14.76	14.60
11	M.shwar.	NA	NA	NA

Source:-Socio-Economic & Irrigation Department Abstract Of Satara District 2014

The above table is represents that the water conserved under various water conservation schemas. The highest water conserved in satara district while the lowest is recorded Khandal tahsil. The highest irrigated area under various water conservation schemes is recorded in Patan tahsil while lowest is recorded in khandal.

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Planned projected irrigated area in drought prone area.

Sr. No.	Tahsil	Total geographical area (in hect.)	Projected Irrigation area (in hect.)	Percentage
1	**Khandal**	53000	37857	71.42
2	**Phaltan**	118400	62989	53.19
3	**Man**	144000	29585	20.54
4	**Khatav**	132500	34770	26.24
5	**Koregaon**	84800	55153	58.17
	Total	542700	220344	40.60

Source:-Socio-Economic & Irrigation Department Abstract Of Satara District 2014.

EXPLANATIONS:

There are five tahsil in Satara district which categorized in to drought prone areas. As per above table represent that projected irrigated area in Khandal tahisl is largest while second largest is Koregaon. The proportionate lowest irrigated area is recorded in Man tahsil.

CONCLUSION:

Above discussion reveals that there are different water conservation projects are completed in Satara district. But in tahsil Khandal and man has recorded lowest water conservation due to less of rainfall. The proportion of water conserved in Satara tahsil is very high due to more in rainfall. There is more need to attention on Man and Khatav tahil for water conservation schemas and irrigation of water in drought prone areas of Satara district.

REFERENCES:

1. Socio-Economic Review of Satara District 2014.
2. Satara District –Census Of India 2011.
3. Majid Hussen, Systmatic Agricultural Geography, Ratwat Publication Pvt. Ltd. Delhi.
4. V. C. Srivastava; achieving sustainability in agriculture, issue challenges and opportunities,
5. Cabtree, R. J. Yashin A. A., Karangousou, I and Me New, R. W. 1985. Effects of alternate follow irrigation: Water Conservation on the yield of two soybean cultivars. Agriculture water management, 10, 253-264
6. R. C. Chandana, Environmental Geography (2006), Kalyani Publications New Delhi.
7. Internet facilities