



OVERVIEW ON " JALYUKTA SHIVAR ABHIYAN" AND MICRO IRRIGATION IN MAHARASHTRA STATE

Mr. U. P. Potekar- Research Student, Department of Geography, Shivaji University, Kolhapur

Dr. S.K. Pawar- Associate Professor, Department of Geography, Shivaji University, Kolhapur.

ABSTRACT

Water is important because it is essential to life on the earth. It is one of the most important natural resources and is vital for the Agricultural and Economical development. In Maharashtra state nearly 82% area of state falls in Rain-fed sector and 50% area is drought prone, uncertain, insufficient and irregular rainfall pattern adversely affects Agriculture. Drought occurs frequently resulting shortage of water for drinking and irrigation.

In view of this, the present paper based on secondary data intends, The state government's project 'Jalyukta Shivar Abhiyan' on January 26, 2015 setting targetting 25 lakh hectares of land under irrigation in three phases between 2015 to 2018. To look into the a long term measures to mitigate drought with help of integration and convergence of various schemes implemented by various departments and pulling funds from all resources like Central, State, NGO, People's participation etc. under the programme, Micro-irrigation system would be encouraged for proficient use of water, hence increased the irrigation area. It is found that due to Jalyukt Shivar Abhiyan rainfall run-off, soil erosion declined and recharge of ground water level and water storage capacity also increased under irrigation area. Improving productivity and socio- economic condition of farmers.

Key words - Jalyukta Shivar Abhiyan, Aim, Mitigation of Drought, Recharge of Ground water level, Outcome.

INTRODUCTION :-

Maharashtra government has launched a new programme named 'Jalyukta Shivar Abhiyan in a state on January 26, 2015. The programme aim to make 5000 villages free of water scarcity every year. This Abhiyan aims at initiating permanent measures to make the state drought free by 2019 and to harvest rain water within the village boundary thereby increasing ground water levels.

Under the programme, micro-irrigation systems would be encouraged for proficient use of water, hence increasing the irrigated area, government will be initially allocating Rs. 1000crore for the scheme.

BACKGROUND :-

Maharashtra is the third largest State in Union of India considering population as well as area. The population of the state is about 112 million. Nearly 58% of population lives in rural area which depend largely on agriculture for their livelihood. Geographical area of State is 30.7 Mha. out of which cultivable area is 22.5 Mha. The rainfall varies from 400 mm to 6000 mm. geographical area of Maharashtra has been divided into 36 districts & 358 Talukas for administrative purposes. The agriculture suffers due to varies of monsoon. Nearly 148 Talukas are drought prone. In Maharashtra state nearly 82% area under Maharashtra is a drought prone area, especially its region of vidharbha and Marathwada. In 2014 vidharbha was deficit by 14 percent, while Marathwada was deficit by 42% putting both the region in category of drought. Incidents of farmer's suicide have become very common in these regions. High dependency on Monsoon rain.

NECESSITY AND MAIN OBJECTIVES OF PROGRAMME :-

In Maharashtra state water scarcity was declared in 23811 villages in the year 2014-15 and 15747 water scarcity Villages in 2015-16. There is a need to recharge ground water and create decentralized water bodies to overcome the Water Scarcity problem in rain-fed area of the State.

Main Objectives of Programme :-

In this Programme main objectives as below.

- i) To arrest Maximum runoff in the Village area.
- ii) To create decentralized water bodies.
- iii) To increase ground water level in Drought prone areas.
- iv) To encourage people for Tree Plantation.

- v) To create new structures of Water conservation in the State.
- vi) To create awareness and encourage People for efficient use of water for farming.

DATA BASE AND METHODOLOGY :-

Present paper is based on the secondary sources data, The study contains analysis of the Reports submitted by various agencies to assess an overall impact of the Jalyukta Shivar Abhiyan in the Maharashtra State. In order to have better understanding about the issues, with regards to Jalyukta Shivar Abhiyan.

Thus, the Study is primarily a cross-comparison of indicators to provide a general overview of the Impact and Effectiveness of JSA in Maharashtra state.

Awareness for Public of Jalyukta Shivar Abhiyan:-

It is essential that not only government effort but also increase participation of local People for more involvement in this programme. Government increase awareness of this Programme through following channels.

- Gram Sabha, Meetings a villages.
- To arrange Morning Rallies, Essay Competition, Drawing competition, Elocution etc. for the creating awareness among students.
- Creation of awareness through Electronic Media.
- To Distribute booklets, Leaflets Regarding of Mission.

Jalyukt Shivar Work :-

On January 26, 2015 C.M. Devendra Fadnavis has launched the ‘Jalyukta Shivar Abhiyan’ setting targetting 25 lakh hectures of land under irrigation in three phases between 2015 and 2018. This Programme showing 60% achievement in just 15 months.

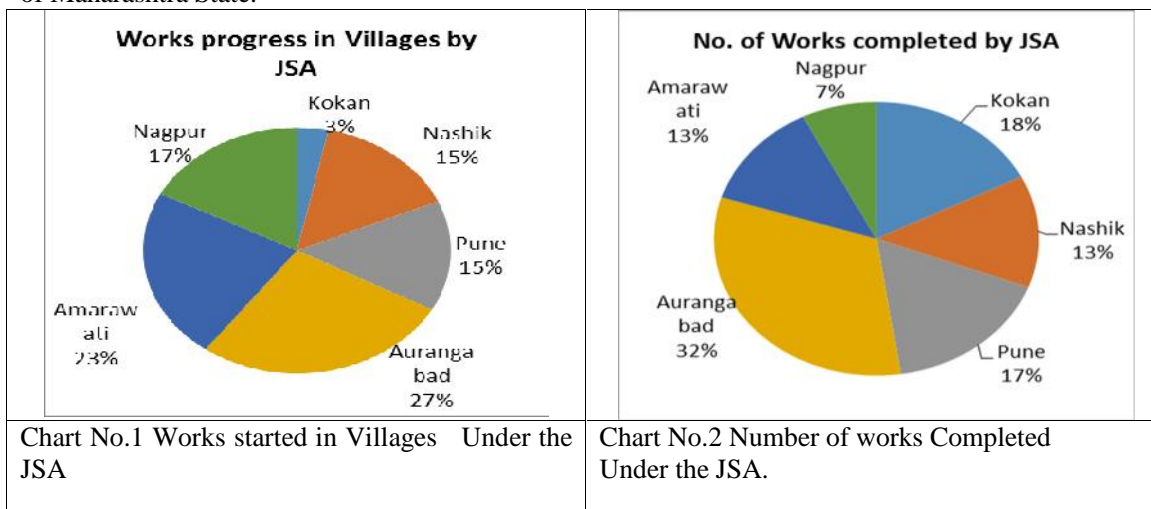
In the programme 25000 Villages out of 40000 Villages were shortlisted for Jalyukta Shivar in three phases. In first phase (2015-16) 6200 Villages saw 1.20 lakhs Project. In the Second phase (2016-17) 5500 Villages with 80000 Works were taken up by the state government along with various non-government organization.

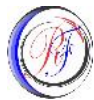
Table 1 Regionwise Jalyukta Shivar Abhiyan work Status

Division	No.Works started in village	No. of works.
Kokan	203	35396
Nashik	941	26764
Pune	903	34026
Aurangabad	1682	65263
Amarawati	1396	25579
Nagpur	1077	15062
Total	6202	170233

Source – Rural Development and Water Conservation Department.

In above Table No. 1 contains Regionwise status of work under the Jalyukta Shivar Abhiyan of Maharashtra State.



**Table 2 Compartment bunding and Deep CCT**

Sr. No.	Treatments	Works in Progress	Work completed	Total (Ha)
1.	Compartment Bunding (Ha)	105996.17	452384	578380
2.	CCT/Deep CCT (Ha)	5420	44591.10	50011.2
	Total	111416.17	516975.1	628391.2

Source :- Rural Development and Water Conservation Department

Above Table shows the compartment bunding and Deep CCT work specific status upto 2016 under the Jalyukta Shivar Abhiyan.

Table No. 3 Work of different Categories in JSA

Sr. No.	Treatments	Works in Progress (No.)	Work Completed (No)	Total (No.)
1.	MNBs (No.)	402	2491	2893
2.	CNB (No.)	1764	4316	6080
3.	CNB Repairs (No.)	558	943	1501
4.	KT Weirs Repairs (No.)	374	367	741
5.	Percolation Tank Repair (No.)	363	889	1252
6.	Gaon Tank/Percolation Tank (No.)	97	173	270
7.	KT Weirs No.	141	256	397
8.	Nala Stretning Deepening (No.)	1695	6402	8097
9.	Farm Pond (No.)	3104	4793	7897
10.	Nala connect Project Odha Jod (No.)	5	4	9
11.	Well / Bore Well Recharge (No.)	10217	23258	33475
12.	Recharge Shaft (No.)	4843	2161	7004
	Total	23563	46053	69616

Source :- Rural Development and Water Conservation Department.

In this article, for comparative study, We have selected various type of works in different regions of Maharashtra State, under the Jalyukta Shivar Abhiyan. In above table various 13 types of work status shown in details.

In this Scheme, water storage potential created is 688596 T.C.M and Protective Irrigation Potential created is i) One protective Irrigation – 610840 Ha.

ii) Two Protective Irrigation – 309325 Ha.

Maharashtra State gives the supportive Initiative of this Programme has follows.

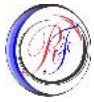
- 1) State Government has also been taken to grant the 'Farm Pond on Demand' by Farmers.
- 2) The decision has been taken to Provide funds under the newly launched Rives rejuvenation programme for the Construction of Cement Bandh where the desitation Works of Nala/River have been carried out in large scale with People's Participation.

Jalyukta Shivar and Micro Irrigation :-

Jalyukta Shivar Abhiyan is flagship program of Government of Maharashtra to Provide longterm and Sustainable Solution to the water Scarcity and unreliability problem faced by Rural communties. The program develops a planning based integrated framework to address both drinking water and irrigation water demands of communities. Large number of watershed inventions are Proposed by different agencies like Agriculture Department, Forest Department, Minor Irrigation, GSDA and RWS interventions include building and Repairing of Civil structures. (Concrete Nala bunds, earthen Nala bund, Pakka bunds, KT bund, Farm Ponds, Recharge Ponds, Gabion and Sub-Surface bunds, bore Casting, Jackwell, Tanks etc.) Continuous contours trenching CCT Agricultural interventions (e.g – Drip Irrigation, Horticulture, Plots, Terracing etc.)

Impact of Jalyukta Shivar Abhiyan

- 1) Increase in Ground Water level :- The Water harvesting structures play a key role by storing water and allow sufficient time for water to percolate into ground. Therefore, Increase in ground water table in Drought Prone area in measurable indicator of Successful of JSA.



- 2) Soil Erosion Reduction :- The Soil Erosion was reduced more than 50% in the Jalyukta Shivar Abhiyan Implanted Area Because of compartment bunding, CCT and Deep CCT and Graded Band.
- 3) Run Off Reduction :- With Regards to Run-off reduction it was observed that the Programme is successful in achieving this goal. According to the JSA Beneficiaries this has been possible because of the contour bunding or Field bunding which has also in checking the run-off of Rain water resulting in Soil Moisture Retention.
- 4) Land-use Pattern :- Better Land-use Pattern is one of the important objectives of Watershed Management with increase in surface Water conservation and increase in Availability of Water in the Watershed regions.
- 5) Cropping Pattern and Agriculture Productivity :- Since water is essential for agricultural Production, with Available water harvesting Structure Farmers are inclined to new cropping Pattern and Agricultural Diversification.
- 6) Cropping Intensity :- The Change in Cropping intensity is one of the major indicator to assess impact of the Jalyukta Shivar Abhiyan. Increase in residual moisture content due to contour bunding helping in crop growth and yield. Decrease in Soil Erosion and hence Protection of Fertile top Soil due to contour bunding.
- 7) Increase in Agriculture Productivity :- Result of JSA increase in Agriculture Productivity also Fodder production increased due to this milk Production also increased.
- 8) Employment Generation :- According to the Watershed Guidelines, the Under the Study, Additional employment is generated due to JSA. It was reported that during the implementation of JSA's Earthen Nalla, Bunding, K.T. Weirs Employment have been generated.

Conclusion :-

Jalyukta Shivar Abhiyan is one of the most popular development Programme implemented across the Maharashtra State. This Abhiyan has been directed towards the Promotion of overall economic and agricultural development. Improve Socio-Economic Status of the Farmers in the Drought-Prone area. Improvement of Environment Through Tree Plantation.

References :-

- 1) Rural Development and water conservation Department Report Department of Government of Maharashtra.(2016)
- 2) A Users Manual – Social Audit and the NREGA (n.d) : Centre for Equity Studies Sponsored by National Institute of Rural Development with the Support of Mazdoor Kisan Shakti Sangathan.
- 3) Anon (2001) : Study Report on Watershed Development Kalpataru Research Foundation.
- 4) Centre for Technology Alternatives for Rural areas Indian Institute of Technology Bombay Report on Evaluation of Jalyukta Shivar Abhiyan in Palghar district.
- 5) Centre for Rural Studies : National Institute of Administrative Research Lal Bhahadur Shastri National Academy of Administration, Mussoorie.
- 6) Technology and Department Solutions Cell (TDSC) : Mumbai.