



IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 7 Issue: IV Month of publication: April 2019 DOI: https://doi.org/10.22214/ijraset.2019.4667

www.ijraset.com

Call: 🕥 08813907089 🔰 E-mail ID: ijraset@gmail.com



# Case Study of Jalyukta Shivar Campaign of Darphal Village

Inamdar S.R.

Department of Civil Engineering, KSGB'S BIGCE, Solapur, India.

Abstract: Water is one of the earth's most precious resources. Though, 70% of Earth's surface is water a major 97.5% of this is salt water and only 2.5% is freshwater. Moreover, less than 1% out of this 2.5% amount of freshwater is accessible (the majority is frozen in ice caps or as soil moisture) with growing population this amount of water is becoming insufficient. Moreover, India and other developing countries are the worst affected by fresh water crisis mainly because of comparatively lack of better planning to manage their respective fresh water reserves both on surface and in the aquifers. Therefore, sometimes we can say that water crisis is manmade problem up to some extent. And this is a long term problem. A combination of measures is required to tackle the issue. Water related problems are not new to the state but there have been some rapid changes in recent years. Maharashtra government has launched the project "Jalyukta Shivar Campaign" in Maharashtra for drought-free state by 2016-2019. This project involves deepening and widening of streams, construction of cement and earthen stop dams, work on nallas and digging of farm pond. There is need to recharge ground water and create decentralized water bodies to overcome the water scarcity problems in rain fed areas. That's why Government has launched a new programme named Jalyukta shivar campaign if this scheme properly implemented then water scarcity will surely a thing of in Maharashtra.

Keywords: Jalyukta Shivar Campaign, Water Scarcity, Drought-free, Water Crisis.

I.

#### INTRODUCTION

Case study of Jalyukta shivar Yojana in Osmanabad district at Darphal Village. Fieldwork is the key process to understand ground scenario in a better way and that is why the theoretical and practical perspectives are different in their dimensions. Our field work was arranged in OSMANABAD district at Darphal village. It is an administrative district in Marathwada region of Maharashtra. From the point of disasters and hazards this particular district is mainly prone to Drought condition. And the district routinely experiencing scarcity of water (Drought) with an interval of some years. The reasons behind these types of conditions in the region can be manmade as well as natural. Some of the studies reasoned sugarcane cultivation for drought in this area.

Because already the area is suffering from limited water and sugarcane cultivation consumes more water which again affect the ground water table of the region. But it is not only the reason behind drought in Osmanabad district because still the district is facing drought even after reducing the sugarcane cultivation under "BEYOND SUGARCANE" campaign from 43,000 hector to 10,000 hectare. So the other practices plus low rainfall is also responsible for drought in the region.

One of the most important natural resources which are extremely crucial for our daily life is water. There are the two types of sources of this essential resource viz. surface water and ground water. Maharashtra, the second largest state in India, both in area as well as in population, has very limited assured irrigation. Considering drought-like situation occurring frequently in the state, Jalyukta Shivar Campaign is being taken up under 'water for all - drought-free Maharashtra 2019'. Capacity and around 84% of its agricultural land is rain fed. Around 159 lakhs hectares of area is drought-prone Water Conservation Program is one of the very important programs, the Govt. of Maharashtra has decided to implement with a view to improve the lifestyle of the people in rural areas and thereby achieve the rural development. In the state of Maharashtra, inconsistency of rains in the very times of crop growth and discontinuity of rains create drought-like situation and agriculture field is heavily impacted. Almost 82% area in the state is dry land while 52% area is drought-prone. There are 188 Talukas (2234 villages) where groundwater level dropped for more than 2 meter and drought situation were declared in 19059 villages from 22 districts in the year 2014-15. This 'Jalyukta Shivar' campaign needs to be implemented in these locations on priority. Also, provisions should be made to ensure water scarcity situation is not created in future in the remaining part of the state. Therefore, government is authorizing implementation of 'Jalyukta Shivar' campaign in all districts of the state, in order to permanently overcome drought situation by convergence of funds approved for schemes under various departments and through MNREGAS/MLA/MP Fund/District-level Fund/Nongovernmental Organizations/CSR and public participation. The scheme aimed at solving water woes of draught-prone regions is already a hit with farmers as many villages are inching towards becoming water-sufficient.



International Journal for Research in Applied Science & Engineering Technology (IJRASET)

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177

Volume 7 Issue IV, Apr 2019- Available at www.ijraset.com

### II. OBJECTIVES

Flagship program of The Government of Maharashtra to make 5000 Villages Water Scarcity Free every year.

- A. To arrest maximum runoff in the village area.
- B. To create decentralized water bodies.
- *C.* To increase the Groundwater Level in Drought areas.
- D. To create new structure of water conservations.
- *E.* Rejuvenation of the water storage capacity of various existing structure like village Tank, Percolation CNB through repairs and renovations.
- F. To increase storage capacity of water bodies by removing silt through people's Participations.
- G. To sensitize the concept of water Budgeting.
- H. To encourage Tree Plantation.
- *I.* To create awareness and encourage people of efficient use of water for farming.

#### III. THE NEED TO CONSERVE WATER

Factually, Maharashtra has been bestowed with adequate rainfall, perennial rivers, lakes and large streams. However, due to concretization in last few decades, natural resources in the State have endured huge losses, driving it to situations like drought. Any type of natural activity is in essence completely balanced. Natural streams are created as a cumulative result of various land strata such as hills and hillocks, slightly deeper stretches, plateaus and grounds as well as green cover and rainfall in the area. The water bodies, in the form of rivers, streams, nallas and smaller streams, decide the sustainability and future of the region. Urbanization in any part of the land requires changes in the natural landscape of the region. The speed of urbanization in the State too adversely affected the water bodies it had. Today, one cannot find a city, town or a village in Maharashtra where natural streams have not been encroached. One of the major responsibilities undertaken through Jalyukta Shivar Abhiyan is to rejuvenate these natural water sources. Ground water is a major source of water for meeting the year round requirement of both drinking water and irrigation. Since there is a limit to how much of water can be stored on the surface, it is important for us to understand ground water science in order to take effective measures to judiciously use ground water resources.

#### IV. DURATION OF CAMPAIGN

Since it is necessary to complete activities planned under campaign before rains, action plan should be prepared by December end. This should be approved by divisional committee and at least 5 activities should be started in each Taluka by first week of January. Actual implementation of this project should be done between January 2015 and January 2016 and after that, evaluation work should be conducted between January 2016 and March 2016. This campaign should be implemented till year 2019 in above manner.

#### V. EVALUATION OF THE CAMPAIGN

Concurrent evaluation will be carried out for schemes under this campaign. For this, a team should be formed within the district and other districts should be evaluated. Also, works taken up under this programme should be evaluated from third party agencies after completion.

#### VI. AWARD FOR EXCELLENT WORK

Under this campaign, Talukas doing excellent work are going to be honored by giving awards. For this, two Talukas doing excellent work under this campaign should be selected from each district. Similarly, two Talukas should be selected for awards at divisional level and three Talukas should be selected for awards at state level. Criteria for awards will be determined separately.

#### VII. SUMMARY OF DARPHAL VILLAGE

I arrived at Darphal for case study of jalyukt shivar yojana done in Osmanabad dist. After reaching their I meet some villegers and farmers and discus about their problems and need. Then I reach to the Gram-panachayat of darphal for collecting the preview data of schemes which are already done in Darphal. TRANSACT WALK, SOCIAL AND VILLAGE MAPPING and ABC (ATTITIDE, BEHAVIOU and CHANGE) OF PRA. After that I had one activity where I collected people are live in this village. There are 368 no of families are present. In this village to learn how to do mapping from the lenses of disaster manager. On the next day I had session with same faculty member regarding the Resource Mapping, Venn diagram and tool for understanding the needs and priority



International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177 Volume 7 Issue IV, Apr 2019- Available at www.ijraset.com

of the people. I had also discussed about how the villagers follow their seasonal calendar for their practices. In second half I went to OSMANABAD to meet Disaster Management officer at Collector office. I got some ideas of areal hazards and disasters by interacted with officer which helps us to understand the area which I am going to study for my fieldwork.



Figure 1 Emergency Exit Map For Darphal Village

I went to meet collector where collector sir had oriented us regarding how the area is suffering from Drought as a major issue of concern and how they handing the issue. There I had session regarding the physiographic aspects of the region and some issues like agricultural distress of the farmers in a region. We had also discussed the 05point Agendas of collector and his staff to mitigate drought in an area with upcoming schemes. By evening I reached village DHARPHAL were I welcomed by the Mr. Dharmaraj Jadhav who is respected UP-SURPANCH of the village. He gave me the full fill data of the darphal village and gives some idea about financial aspect of villagers and their needs.

|          | 1000          |                     |          |               |        |                  |                |       |        |        |                |            | -    |         |
|----------|---------------|---------------------|----------|---------------|--------|------------------|----------------|-------|--------|--------|----------------|------------|------|---------|
|          | सझा - इर्ला   |                     |          |               |        | ता.जि.उस्मानाबाद |                |       |        |        |                |            |      |         |
|          | लागवडयोग्य    |                     |          |               | ादया व | 1                |                | T     |        | 1      | 1              |            | 1    | 1       |
| क्षेत्र  |               | r                   | पोटखराब  | -             | नाले   | गावठाण           | तलाव           |       | रस्ते  | वर्ग-2 | 1              | वर्ग-3     |      | . 1     |
| इलो      | ला 891.70     |                     | 28.      | 42            | 4.55   | 6.69             | 0.0            | 00    | 8.8    | 5      | 0.00           |            | 0.00 | 940.21  |
| दाउतपूर  | ाउतपूर 820.16 |                     | 29.      | 30            | 0.00   | 3.87             | 0.0            | 00    | 8.6    | 1      | 0.00           |            | 6.54 | 868.48  |
| दारफळ    | रफळ 515.62    |                     | 5.72     |               | 1.15   | 7.39             | <b>∋•</b> • 1. | 64    | 2.6    | 4      | 0.00           |            | 0.00 | 534.16  |
| रामवाडी  |               | 675.10              | 4.       | 48            | 7.25   | 4.5              | 6 0.           | 00    | 1.0    | 8      | 4.96           |            | 0.00 | 697.43  |
|          |               | 2902.58             | 67.      | 92            | 12.95  | 22.5             | 1 1.           | .64   | 21.1   | 18     | 4.96           | 1          | 6.54 | 3040.28 |
|          |               |                     |          |               |        |                  |                |       |        |        |                |            |      |         |
|          |               |                     |          | 2             |        | लोक              | संरज्या        | (4)   |        |        |                |            | -    |         |
|          | कटंब          |                     | लोकसंख्य |               |        | म                | अनुसुचित जाती  |       |        | ft     | अनुसुचित जमाती |            |      |         |
| गाव      |               | <u>३.३</u><br>संख्य | ा एक्    | т             | पुरूष  | स्त्री           | एकुण           | पुर   | रूष रः | त्री   | एकुण           | T          | रूष  | स्त्री  |
| रामवादी  |               | • 3                 | 52 10    | 541           | 888    | 753              | 463            |       | 252    | 211    | 3              | 322        | 176  | 146     |
| हर्ता    |               | 5                   | 34 24    | 488           | 1322   | 1166             | 438            |       | 238    | 200    | 1              | 33         | 10   | 5 17    |
| . हाउतपर |               | 3                   | 56 1     | 727           | 892    | 835              | 242            |       | 118    | 124    | +              | 7          |      | 3 4     |
| ant -    |               | 3                   | 368 15   |               | 835    | 760              | 261            | -     | 139    | 122    | 0]             |            |      | 01      |
|          |               |                     |          |               |        |                  |                |       |        |        |                |            | !    |         |
|          |               | मरकारी व            | गायरान   |               |        |                  |                |       |        |        |                | •//•//•//• |      |         |
| .क्र.    | गा            | वाचे                | ग.नं.    | ग.नं. क्षेत्र |        |                  |                | • • • |        |        |                | • • • •    |      |         |
| 1        | दा            | हाउतपर —            |          | <u> ۱2.6</u>  |        |                  |                |       |        |        |                |            |      |         |
| 2        | दारफळ         |                     | 281      | 255 7         |        | ]                |                |       |        |        |                |            |      | ·       |

Figure 2 Document regarding information of darphal village.

This is the day I started my field work in the village. I first met Mr. Jadhav (UPSURPANCH) who is really very nice person and also he is the person who had looked after all my needs and accessibility in the village. From him I got the idea about the layout and many other things of the village. Other chain of events is mentioned below.



## International Journal for Research in Applied Science & Engineering Technology (IJRASET)

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177 Volume 7 Issue IV, Apr 2019- Available at www.ijraset.com

#### VIII. MEETING WITH AGANDWADI WORKERS

- A. Visit at ZILLA PARISHAD PRIMARY SCHOOL (Principal and Teaching Staff)
- B. Discussion with villagers at several sites (introduction and purpose of visit)
- C. Meeting with SURPANCH (in the evening at her home).

I went to meet GRAMSEVIKA Mrs. M.M. Lokhande who came to our allotted village regarding some work due to election. Then I met some of the Panchayat members at Panchayat. In second half of the day we took one person from the village (Mr. Samadhan) and had a Transact walk to understand village (Ward I, II and III). After finishing the walk many children invited us to school and joined them in some playing activities.

I choose random household survey to understand the village dynamics and capacity of the village people. First half we gave to Ward-1 which Bhimnagar dominated by DALIT community and second half with the Ward-3 dominated mainly by the OBC classes. I have finished these wards first because they are bigger in size than the Ward-2.

Like the previous day we started our random household survey with Ward-2 dominated by MARATHA community and located in the central part of the village. I took some samples from different households and then remaining time I gave to the interaction with villager.

I started to walk along the River bed (RADHAGAVI) to review the work of JALYUKT SHIVAR done one of the local political leaders who adopted the village Mr. ADITYA JIVANRAO GORE. Almost 4 hours I gave to this task to understand the work and I walk from its starting point to the end. After lunch I decided to do the resource mapping and I started visiting fields surrounded the village as the resource mapping is really a difficult task to finish and I gave almost two days to it. And what I got from here is the info regarding the number of wells and bore wells (year of digging and depths), farm size, cropping pattern etc. During evening time I had some conversations with village people regarding their farms and again what we are doing.

After visiting almost 70 to 80 farms in team of two we started the plotting of farms and information on the chart paper. By this I got the clear-cut pictures of intensive boring in the area which is also responsible for the Drought which area is facing. In second half I visited the Poly house near village where they are practice the varieties of JALBERA flowers which they export to Hyderabad market.

#### IX. CONCLUSIONS

- A. In Jalyukta shivar campaign, by Scientific Approach We can easily achieve our predetermined goals of a Campaign.
- *B.* We know that, when two or more peoples gather together and when working towards the same goal then there must be proper co-ordination in between different departments. Here is also same, we have to coordinate activities of JYS campaign properly.
- *C.* While making assessment in Village it is observed that, initially peoples are not giving permission for JYS activities in their Farms. In order to avoid this; we have to create public awareness with help of animation Video.

#### REFERENCES

- Zeeshan Adib Ahmed, R.T.Pachkor, Jalyukta Shivar-A combat to water stresses in Maharashtra, International Journal for Research in Applied Science & Engineering Technology (IJRASET), Vol.3, issue X, October 2015, 102-108.
- [2] A report on Watershed Interventions for Kurlod and Botoshi Phase-I, Technology and Development Solutions Cell (TDSC) Centre for Technology Alternatives for Rural Areas (CTARA), Indian Institute of Technology, Bombay (IITB), December-2014.
- [3] A report on Watershed Interventions for Kurlod and Botoshi Phase-II, Technology and Development Solutions Cell (TDSC) Centre for Technology Alternatives for Rural Areas (CTARA), Indian Institute of Technology, Bombay (IITB) ,July-2015.
- [4] Basavaraj Hutti, Nijagunappa. R ,Applications of Geo informatics in Water Resources Management of Semi-Arid Region, North Karnataka, India, International Journal of Geometrics And Geosciences, Vol. 2, No 2,2011,374-382
- [5] Samir Saran, Sonali Mittra, Sarah, Attitudes towards Water in India., Observer Research Foundation, June 2014.
- [6] Government of Maharashtra, Water Conservation Department, Government Resolution No. JaLaA-2014/Case No.203/JaLa-7, Mantralaya, and Mumbai 400 032, Date: 5 December, 2014.
- [7] Dr. Sampat Kale, Dr. Jitendra Kumar Gond presented paper on Drought in Marathwada: Water Scarcity Worsening Situation in Marathwada Faculty, School of Rural Development, Tata Institute of Social Sciences, Maharashtra, India Vol. 5, Issue 5, May 2016Copyright to IJIRSET DOI:10.15680/IJIRSET.2016.0505270 8376.
- [8] Prof. R. T. Pachkor, Dr. D. K. Parbat Presented Dissertation on Assessment of Works under Jalyukta Shivar Campaign Volume 5 Issue IV, and April 2017 IC Value: 45.98 ISSN: 2321-9653
- [9] Cover story: Water, The Real Saviour, Maharashtra Ahead, Vol.4 Issue 8, August 2015ES











45.98



IMPACT FACTOR: 7.129







# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 🕓 (24\*7 Support on Whatsapp)