

# Knowledge of Beneficiary Farmers about *Jalyukta Shivar Abhiyan*

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**Abstract:** *The present study was conducted in Latur district of Marathwada region of Maharashtra state. For the study of Jalyukta Shivar Abhiyan, exploratory research design was used. After completion of one year of Jalyukta Shivar Abhiyan it was studied for its knowledge. After analysis it was observed that 63.34 per cent of the respondents had high level of knowledge regarding Jalyukta Shivar Abhiyan. In implementation of Jalyukta Shivar Abhiyan beneficiaries were facing problems such as soil material which hold and percolate water get scrapped (60.83%), followed by procedural delays in approvals, sanctions and fund disbursal (56.67%), activities not carried out timely (51.67%) and high rate of evaporation in summer season (48.33%) etc.*

**Keywords:** Jalyukta Shivar, Drought, Water, Restoration, Knowledge

## 1. Introduction

In the state of Maharashtra, inconsistency of rains in the very times of crop growth and discontinuity of rains create drought like situation. Nearly, 82 per cent area of the state falls in rainfed sector and 52 per cent area is drought prone, due to which agriculture field is heavily affected. Heavy ups and downs have been observed in the production of crops on dry land in the state. Less availability of water is a major factor responsible for this situation. To permanently overcome internal drought situation and to increase water availability, in December 2014, Maharashtra government has launched a new programme named Jalyukta Shivar (water full surrounding) programme to make Maharashtra a drought-free state by 2019. There is convergence of various schemes related to water conservation. This programme focused on restoration, repair, rejuvenation and construction of local water bodies, where possible, it also linked to nearby rivers, allowing a continuous, uninterrupted flow of water for local irrigation requirements. Success of any development programme depends on degree of involvement of the people and at what level of knowledge they have about it. Keeping in view a study of knowledge of beneficiary farmers about *Jalyukta Shivar Abhiyan* in Latur district of Maharashtra state was under taken.

## 2. Objectives

- 1) To study knowledge of beneficiary farmers about *Jalyukta Shivar Abhiyan*.
  - 2) To Study Constraints faced by beneficiary while participating in *Jalyukta Shivar Abhiyan*.
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## 3. Methodology

The investigation was carried out in Latur district of Maharashtra state during 2017- 2019. For the study of *Jalyukta Shivar Abhiyan* exploratory research design was used. Out of ten talukas of the district under *Jalyukta Shivar Abhiyan*, three talukas namely Latur, Ausa and Renapur were selected for the study and four villages were selected from each selected talukas by proportionate random sampling method.

Thus a total of 12 villages were selected for study. In total a sample of 120 beneficiary farmers from selected villages was drawn with the help of proportionate random sampling method. The data were collected with the help of schedule developed for this purpose contained questions related to knowledge of beneficiary farmers about *Jalyukta Shivar Abhiyan* by personally interviewing them.

## 4. Findings

It was evident from Table 1 that, per cent of beneficiary farmers had knowledge about villages with high scarcity of water are selected (100.00%), maximum rain water is harvested in surroundings of village itself (100.00%), outcomes of the Abhiyan (100.00%), followed by decentralized water bodies are created (72.50%), *Jalyukta Shivar Abhiyan* is five year plan (63.33%), funds are available under various schemes (60.00%), before implementation of activities water balance sheet of village is prepared (51.67%), whereas, majority of the respondents had no knowledge about implementation of ground water act is a part of Abhiyan (68.33%) and every year 5000 villages will make free of water scarcity (51.67%).

In case of activities taken under *Jalyukta Shivar Abhiyan*, cent per cent of respondents had knowledge about watershed development work namely, canal deepening (100.00%) and tree plantation (100.00%), followed by majority of the respondents had knowledge about watershed development work namely, farm pond (86.67%), extraction of sludge from various existing water bodies (86.67%), watershed development work like water absorption trenches (79.17%), repairing of existing micro irrigation structures (KT Weir/Storage dam) (77.50%), strengthening of drinking water sources (77.50%), chain cement concrete canal dam

works (76.67%), resurrection of old water structures (72.50%), efficient use of available water (72.50%), small river/canal joining (70.83%), watershed development work namely, graded bunding (68.33%), well/bore well refilling (67.50%), and repairing, renovating and reinstating of percolation tank and micro irrigation tank (57.17%). While majority of the respondents had no knowledge about strengthening of water usage organizations (81.67%). Above findings regarding farm pond and tree plantation were in accordance with the findings of Kulshrestha *et al.*, (2015) and Rathod Trupti and Rathod(2016).

From above data it shows that, beneficiary farmers were very well known about *Jalyukta Shivar Abhiyan* activities, probable reason for this might be water is important factor in their personal life and for farming, also now-a- days state

government creating awareness about various water conservation activities to overcome water scarcity problem of Maharashtra, as it is major trait to development of state.

The data in Table 2 indicates that, 63.34 per cent of the respondents were having high knowledge level followed by 30.83 per cent were having medium level knowledge and 05.83 per cent were found in low level of knowledge.

It was observed from Table 3 that, majority of beneficiary farmers (60.83%) of *Jalyukta Shivar Abhiyan* faced major constraint soil material which hold and percolate water get scrapped, followed by procedural delays in approvals, sanctions and fund disbursal (56.67%) and activities not carried out timely (51.67%), respectively.

**Table 1:** Distribution of the respondents according to their knowledge about *Jalyukta Shivar Abhiyan*

Sr. No.	Statements	Knowledge	
		Yes	No
1	<i>Jalyukta Shivar Abhiyan</i> is five year plan.	76 (63.33)	44 (36.67)
2	Every year 5000 villages will make free of water scarcity.	58 (48.33)	62 (51.67)
3	Villages with high scarcity of water are selected.	120 (100.00)	00 (00.00)
4	Maximum rain water is harvested in surroundings of village itself.	120 (100.00)	00 (00.00)
5	Decentralized water bodies are created.	87 (72.50)	33 (27.50)
6	Implementation of groundwater act is a part of Abhiyan.	38 (31.67)	82 (68.33)
7	Before implementation of activities water balance sheet of village is prepared.	62 (51.67)	58 (48.33)
8	Funds are available under various schemes.	72 (60.00)	48 (40.00)
9	Outcomes of the Abhiyan.	120 (100.00)	00 (00.00)
10	Activities taken up under the Abhiyan.		
	A) Watershed development works		
	a) Graded bunding	82 (68.33)	38 (31.67)
	b) Water absorption trenches	95 (79.17)	25 (20.83)
	c) Farm pond	104 (86.67)	16 (13.33)
	d) Canal deepening	120 (100.00)	00 (00.00)
	B) Chain cement concrete canal dam works	92 (76.67)	28 (23.33)
	C) Resurrection of old water structures	87 (72.50)	33 (27.50)
	D) Repairing of existing micro irrigation structures (KT Weir/storage dam)	93 (77.50)	27 (22.50)
	E) Repairing, renovating and reinstating of percolation tank and micro irrigation tank	65 (54.17)	55 (45.83)
	F) Extraction of sludge from various existing water bodies	104 (86.67)	16 (13.33)
	G) Small river/canal joining	85 (70.83)	35 (29.17)
	H) Well/bore well refilling	81 (67.50)	39 (32.50)
	I) Efficient use of available water	87 (72.50)	33 (27.50)
	J) Strengthening of drinking water sources	93 (77.50)	27 (22.50)
	K) Strengthening of water usage organizations	22 (18.33)	98 (81.67)
	L) Tree plantation	120 (100.00)	00 (00.00)

**Table 2:** Distribution of the respondents according to their overall knowledge about *Jalyukta Shivar Abhiyan*

Sr. No.	Knowledge index	Respondents (n=120)	
		Frequency	Percentage
1	Low (Up to 33.33)	07	05.83
2	Medium (33.34 to 66.67)	37	30.83
3	High (Above 66.67)	76	63.34
	Total	120	100.00

**Table 3:** Constraints faced by beneficiary farmers in implementation of *Jalyukta Shivar Abhiyan*

Sr. No.	Constraints	Respondents (n=120) Frequency	Percentage (%)
1	Improper site selection	38	31.67
2	Beneficiaries were not taken in confidence before starting the Programme	32	26.67
3	Unscientific implementation	46	38.33
4	Lack of transparency	45	37.50
5	Soil conservation key to ground water recharge but get Neglected	42	35.00
6	Abhiyan appeared to hold water but would not recharge it	48	40.00
7	Soil material which hold and percolate water get scrapped	73	60.83
8	High rate of evaporation in summer season	58	48.33
9	Productive land goes under the construction of farm pond	11	09.17
10	Activities not carried out timely	62	51.67
11	Procedural delays in approvals, sanctions and fund disbursal	68	56.67

The other constraints followed by the respondents were high rate of evaporation in summer season (48.33%), Abhiyan appeared to hold water but would not recharge it (40.00%), unscientific implementation (38.33%), lack of transparency (37.50%), soil conservation key to ground water recharge but get neglected (35.00%), improper site selection (31.67%), beneficiaries were not taken in confidence before starting the programme (26.67%) and productive land goes under the construction of farm pond (09.17%), respectively.

The major constraint faced by beneficiary farmers of *Jalyukta Shivar Abhiyan* was soil material which hold and percolate water get scrapped which results in only holding of water not recharging of ground water table in some areas of study, followed by this contradicting other constraint were procedural delays in approvals, sanctions and fund disbursal and activities not carried out timely by concerning agencies. The findings were supported by Athare *et al.*, (2013) and Chavai *et al.*, (2015).

From the results of the present study it could be concluded that majority of the beneficiary farmers had high level of knowledge about *Jalyukta Shivar Abhiyan*, it was because of water nourish and support plant and animal life, also prosperity and welfare of humanity depends on water which is irreplaceable resource. Major constraint identified through study was soil material which hold and percolate water get scrapped therefore focus should be on scientific implementation of *Jalyukta Shivar Abhiyan*.

## 5. Conclusions

On the basis of above findings of the present study it could be concluded that the majority of farmers had show high level of knowledge about 63.34 per cent followed by medium level of knowledge about 30.83 per cent and low level of knowledge is 05.83 per cent of *Jalyukta Shivar Abhiyan*. It is clear from the study that there is need to transfer the new technology and to increase the knowledge of respondents. It is thus suggested that the extension agencies of agriculture and related departments should provide necessary guidance in respect of *Jalyukta Shivar Abhiyan*.

## References

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