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Constraints faced by beneficiary farmers of Jalyukt Shivar campaign

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Abstract

In the Maharashtra state, inconsistency of rains in the very times of crop growth and discontinuity of rains create drought like situation. To mitigate drought in Maharashtra, state government specially launched Jalyukt Shivar Campaign in December, 2014 and ended after extension on March, 2020. The evaluation study was undertaken to know how this campaign is being implemented and what was done to improve this campaign. The present study was conducted in Vidarbha region of Maharashtra state where drought is the major challenge hence the research objective was formulated to study constraints faced by the beneficiary farmers of Jalyukt Shivar Campaign. An ex-post facto research design of social research was used for present investigation. The study was conducted in Nagpur and Yavatmal district in the year 2020, with 320 beneficiary farmers of Jalyukt Shivar Campaign. The findings revealed that in case of technical constraints, majority of beneficiary farmers (72.50%) faced major constraint deposition of clay and silt in structures, followed by lack of maintenance of structures (66.87%) and unscientific implementation (54.68%), respectively. Under institutional constraints, majority of the beneficiary farmers (54.68%) of Jalyukt Shivar Campaign faced major constraint lack of post implementation budget for maintenance of structures, followed by lack of technical knowledge among implementing functionaries (48.12%), respectively. The other constraints faced by majority of the beneficiary farmers were irregularities in rainfall (82.50%) and high rate of evaporation in summer season (66.56%), respectively. The findings revealed that ignorance of technical specifications while implementing activities of campaign and lack of post implementation maintenance of structures limiting beneficiaries to derive more benefits from activities.

Keywords: Jalyukt Shivar campaign, constraint, beneficiary farmers

Introduction

Drought is defined by the World Meteorological Organization as “a deficit of rainfall in respect to the long-term mean” affecting a large area for one or several seasons or years (Hounam *et al.*, 1975) [5]. On an average 55 million people around the world are affected by droughts every year. Drought threatens people’s livelihoods, increases the risk of disease and death, and fuels mass migration. The sector most affected by droughts and water scarcity is agriculture. Within the agricultural sector, marginal and small farmers are more vulnerable to drought because of their dependence on rain fed agriculture and related activities.

The Maharashtra has been in a constant state of drought since the year 2012. 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 (GoM, 2014) [4]. In December, 2014, Maharashtra government has launched a new programme named Jalyukt Shivar programme to make Maharashtra a drought-free state by 2019. This programme implemented as a campaign through government departments, voluntary organisations, public participation and funds available with private businessmen to ensure drought does not occur in future in drought like taluka and remaining area. The Jalyukt Shivar Campaign was ended after extension on March 2020. Between 2014 and 2019, over 6.41 lakh water conservation works were carried out in Maharashtra to make the state drought-free. According to the Comptroller and Auditor General (CAG) of India report, the scheme catered to 22,586 villages and 6.41 lakh works were undertaken in all. Of these, 98 per cent or 6.3 lakh works were completed at a cost of Rs. 9,633.75 crore (Ashar, 2020) [1].

The present study focused on constraints faced by the beneficiary farmers while deriving benefits from activities of Jalyukt Shivar Campaign. There is huge scope under this campaign to increase production, productivity and income of farmers. The effective implementation of campaign leads to overall development of targeted beneficiaries. The success of developmental programmes depends on satisfaction of intended group therefore the study was conducted with

objective to study constraints faced by beneficiaries of this campaign.

Materials and Methods

For the present study an ex-post-facto research design of social research was used. The present study was conducted in the Nagpur and Yavatmal district of Vidarbha region in Maharashtra state. There were number of works under taken, under the 13 major activities of Jalyukt Shivar Campaign all over the state as well as in study area. Out of these, cement nala bund (CNB) deepening was one of the major activities undertaken in selected districts. It is listed as one of the activities among the total 13 activities promoted by Jalyukt Shivar to improve the availability of water. It is one of the promising droughts proofing measure. Therefore, after discussion with subject experts, officials of Jalyukt Shivar Campaign implementing agencies, beneficiaries of this activity were selected purposively as respondents for present study.

Total 320 beneficiary farmers were selected purposively by proportionate random sampling method from 40 villages of four talukas namely; Katol, Narkhed from Nagpur district and Darwha, Digras from Yavatmal district. The purposively selected beneficiary farmers were personally interviewed with help of structured interview schedule. For ascertaining the

constraints, respondents were asked to respond to the stated difficulties faced by them while utilization of Jalyukt Shivar activity. The responses were recorded on two continuums as, yes and no. The frequency and percentage of each constraint was worked out for interpretation. The ranks were assigned to the maximum frequencies for each constraint. The data were filled in excel and basic statistical tools like frequency, percentage were used for data analysis.

Results and Discussion

The constraints are the circumstances or cause which prohibit or restraint the performance of an individual. Constraints play vital role in adoption of technology. To obtain the better result of any extension activity, it is very essential to minimize the constraints related to these activities. Satisfaction of the intended beneficiaries is more important. Therefore, it is very important to study difficulties faced by beneficiaries while deriving the benefits from implemented Jalyukt Shivar Campaign activities.

In the present study, constraints faced by Jalyukt Shivar Campaign beneficiaries while adopting activities and deriving benefits from it were grouped into three categories namely; technical constraints, institutional constraints and other constraints and has been presented in Table 1.

Table 1: Distribution of the respondents according to constraints

Sr. No.	Constraints	Respondents (n=320) Frequency (%)	Rank
A) Technical constraints			
1	Unscientific implementation	175 (54.68)	III
2	Undue reliance on machinery	146 (45.62)	IV
3	Deposition of clay and silt in structures	232 (72.50)	I
4	Lack of maintenance of structures	214 (66.87)	II
B) Institutional constraints			
1	Non establishment of rapport with beneficiaries	108 (33.75)	VI
2	Activities were not carried out timely	130 (40.62)	IV
3	Lack of technical knowledge among implementing functionaries	154 (48.12)	II
4	Lack of transparency	122 (38.12)	V
5	Lack of post implementation budget for maintenance of structures	175 (54.68)	I
6	Follow up of activities was poor	144 (45.00)	III
C) Other constraints			
1	High rate of evaporation in summer season	213 (66.56)	II
2	Irregularities in rainfall	245 (82.50)	I

(Figures in parentheses indicate percentage)

The cursory look at the Table 1 has been revealed that, the constraints are presented in three sections. These are discussed below,

It has been observed from Table 1 that, in case of technical constraints, majority of beneficiary farmers (72.50%) of Jalyukt Shivar Campaign faced major constraint deposition of clay and silt in structures, followed by lack of maintenance of structures (66.87%), unscientific implementation (54.68%)

and undue reliance on machinery (45.62%), respectively.

Deposition of clay and silt in structures: Nearly five years has been completed to water harvesting structures in the study area. Many structures were filled with clay and silt material. Water storage capacity of structures and groundwater table recharge process was got hampered. Therefore, it can be seen as a major constraint as it limiting farmers to taken advantage

from Jalyukt Shivar Campaign on their farm.

Lack of maintenance of structures: The major drawback of this campaign is lack of post implementation maintenance of structures. After implementation of activities, implementation agencies have not looked after to these water harvesting structures. The structures were in poor condition as filled with clay, silt and grasses. So, the beneficiary farmers reported it as a one of the major constraints.

Unscientific implementation: In some cases, the negligence of technical specifications, design parameters, depth of structures, site selection at some place and unnecessary scrapping of soil, silts i.e., water holding medium was reported as one of the major constraints.

Undue reliance on machinery: The heavy machineries were used for implementation of canal deepening activities. It has disturbed natural percolation system and sometimes surrounding farmers fields. This was positive constraint reported by respondents.

Under institutional constraints, majority of the beneficiary farmers (54.68%) of Jalyukt Shivar Campaign faced major constraint lack of post implementation budget for maintenance of structures, followed by lack of technical knowledge among implementing functionaries (48.12%), follow up of activities was poor (45.00%), activities were not carried out timely (40.62%), lack of transparency (38.12%) and non-establishment of rapport with beneficiaries (33.75%), respectively.

Lack of post implementation budget for maintenance of structure: There is no provision under Jalyukt Shivar Campaign for maintenance of structures. Once the construction works were completed, no provision was made to have some funding for further maintenance of the works. After certain period structures started accumulating sand, silt etc. It was one of the major constraints in sustainable development of the beneficiary farmers.

Lack of technical knowledge among implementing functionaries: It was observed that, at some places the activities were implemented without following technical specifications. Lack of technical knowhow among the implementing functionaries might be the probable reason behind it.

Follow up of activities was poor: It was seen that; activities of this campaign were not properly controlled monitor and evaluated for its effective implementation. Follow up of schedule, performance and other critical factors at some places were not taken on time. Therefore, it impedes the success of project at some places.

Activities not carried out timely: According to government resolution activities of Jalyukt Shivar Campaign should be carried out before starting of monsoon to reap maximum benefit from rain. It was seen that, in the study area works were not completed in given time frame at some places. Many works were delayed because of lack of funds, procedural delays etc.

Lack of transparency: Participation of people in implementation of activities was one of the objectives of this

programme. But it was seen that, participation of public was less. Majority of the activities were carried out by contractor. Therefore, project became money driven at some places in the study area.

Non establishment of rapport with beneficiaries: Before starting of any programme rapport is established with intended beneficiaries of project. But implementing agencies, local government has not established good rapport with farmers of study area, possible benefits were not discussed at some places of this project amongst the beneficiaries.

The other constraints faced by majority of the beneficiary farmers were irregularities in rainfall (82.50%) and high rate of evaporation in summer season (66.56%), respectively. Along with some technical and institutional constraints beneficiaries faced other constraints i.e., natural, which create obstacles while deriving benefits from JSC activities.

Irregularities in rainfall: Climate change is one of the major constraints faced by farmers all over world. Uneven, irregular and unexpected rainfall destroys crops from sowing to harvesting stage. Beneficiaries from the study area were experienced the same. It affects crop production. Mainly cotton and soybean were the major crops affected by rains in study area.

High rate of evaporation in summer season: In study area, hot summer was experienced due to this water harvesting structures were dried up earlier in this season. Therefore, farmers could not take benefit in summer season. The area under irrigation in summer season was seen to be less.

The findings were supported by findings of Athare *et al.* (2013) ^[2], Chavai *et al.* (2015) ^[3], Neeta Deokate (2018) ^[7], Pranali Thakare *et al.* (2018) ^[8] and Jakkawad *et al.* (2020) ^[6].

Conclusion

From the findings of technical, institutional and other constraints it is concluded that ignorance of technical specification at some places, lack of post implementation budget and lack of monitoring and evaluation while implementing activities in the study area caused difficulties to beneficiaries in deriving cent per cent benefits from Jalyukt Shivar Campaign activities. Even though the beneficiary farmers were quite satisfied with the scheme but we need to wait long as we want to prove results for sustainable development of beneficiary farmers.

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