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Role of Jal Bhagirathi foundation in watershed development project to serve the farmers in Rajasthan's Jodhpur district

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Abstract

In the years 2021-2022, this study was conducted in Rajasthan's Luni Block of the Jodhpur district. 120 respondents were chosen using the random sample approach, and data were gathered through in-person interviews using a pre-tested interview schedule. Appropriate statistical analysis was then carried out to determine the meaningful outcome. The study design used was descriptive research design. From these settlements, two categories of respondent's beneficiaries and non-beneficiaries of the Watershed Project were chosen. The respondents cited time-consuming operations, land fragmentation into irregular shapes, water stagnation in banded areas, etc. as their main challenges. One of the most important recommendations made by the participants was to offer financial support for these activities.

Keywords: Constraints, watershed, Jal Bhagirathi foundation

Introduction

The modern developing nation's first priority is the growth of agriculture. Significant efforts are being made to boost productivity, and agriculture is being seen like a business. It is well known that better technologies developed by renowned agricultural experts do not always find their way to farmers at the appropriate time or in the appropriate way. India has an abundance of water resources. Agriculture is backbone of Indian economy. It provides livelihood to almost two-third of work force in the country and accounts for 18 percent of India's GDP and about 43 percent India's geographical area is used for agricultural activity.

A watershed is defined as a land surface area from which the runoff drain to common point in canal, stream, river or lake. A watershed refers in physical terms to the area lying above a given drainage point. The goals of watershed development include the preservation, renewal, and wise use of all natural resources including soil, water, and vegetation as well as the animals and people who live there. Because all living things and natural resources are interrelated, watershed management aims to achieve the best possible balance in the ecosystem. Thus, a watershed program can sustainably enhance the socioeconomic standing of residents in a rainfed ecoregion. Watershed development is a way of developing management natural resources to make most of the element particularly to get the most out of the land based portion to the water cycle, in sustainable manner. While both these dimension of livelihood should not be given less importance. One of the objectives of watershed development programme should be to maximum present and future wellbeing of the poor people, who depend on these resources.

The mission of the Jal Bhagirathi Foundation is to secure water resources via inclusive growth, responsive government, and sustainable development. By utilizing traditional knowledge and appropriate technology, the Jal Bhagirathi Foundation works to create an environment that allows the desert communities of the Marwar region to have access to clean drinking water for both humans and animals while maintaining environmental equilibrium. This is done by facilitating village institutions of collective wisdom and developing local capacities for community mobilization in an atmosphere of openness, accountability, and participation through networking and advocacy. Jal Bhagirathi Foundation organizational structure is a unique amalgam of village-level volunteers and a resource base of professionals. The team of 20,000 village-level volunteers is assisted by members of a professional and technical workforce in effectively adopting and implementing a rights-based approach by mobilizing communities, and in planning, implementing, and monitoring development interventions. More than 2,000 water collecting systems were restored in more than 500 communities in

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Western India's Thar Desert. Beneficiary community with over 50,000 residents and animals that benefits from year-round water availability. Villages now have the ability to collect over 4,000 million gallons of rainwater annually. The average amount of time that water is available has grown from four months to ten or twelve months annually, which has reduced poverty and improved quality of life. Participation of women and members of underrepresented groups in inclusive Jal Sabhas (water user organizations) facilitates and equips the community to manage the village's resources. Women and girls were spared the everyday arduous task of carrying water. Financing mechanism for water infrastructure that is distinct. A development fund known as Jal Kosh is established in each village, and residents contribute 30% of the cost of the water collecting systems to this fund. Every donation is made in cash, and a bank account is opened to legitimize it. Community organizations have developed techniques of collecting a user fee in order to build up pricing mechanisms for managing water harvesting installations. The processes are employed to maintain the water structures throughout time. This has been a significant highlight, particularly given the opposition governments in underdeveloped nations confront when trying to price water. According to an external assessment conducted by UNDP, there has been a decrease in water-stressed months, women are spared the arduous task of trekking 3–4 km each day, and most significantly, there has been a 140% decrease in the cost of purchasing water, which

has a significant influence on poverty reduction. 20,000 volunteers are recruited and mobilized to support project sustainability and upkeep. More than 2,100 homes have toilets thanks to the development of a creative three-pronged strategy focused on individual, group, and communal needs. JBF's sanitation initiative has led to village-wide sanitation and behavior change in around 34 communities, with beneficiary contributing 50% in the cost of the toilet. More than 100 hectares of land have been recovered via the effectively finished pasture improvement work in 25 communities; integrated models of land management are being developed through the promotion of local variety tree and fodder planting models.

Research Methodology

The present study was conducted in the Jodhpur District in Rajasthan State Luni block in Jodhpur district in Rajasthan is selected purposively for present study. In Luni block of Jodhpur District there are 81 Gram Panchayats. Out of which, four villages were selected through random sampling. The structured interview schedule was prepared for data collection. Descriptive research design was used for this study. The statistical tools like frequency, percentage, mean, standard deviation was used to interpret the data and for drawing logical conclusion.

Results and Discussions

Table 1: Constraints experienced by the beneficiary farmers in adoption of the programme:

(n=120)*

S. No.	Constraints	Response		
		Frequency	Percentage	Rank
1	Lack of co-ordination among the respondents	97	80.83	I
2	Lack of availability of improved implements	80	66.67	II
3	Easy breaking of bunds	77	64.17	III
4	Irregular supply of canal water for irrigation in cropping season	62	51.67	IV
5	Non-availability of credit in time	58	48.33	V
6	Water sewage problem	51	42.50	VI
7	High labour wages	50	41.67	VII
8	Poor resources	42	35.00	VIII
9	High cost inputs	40	33.33	IX
10	Timely non availability of quality input	37	30.83	X
11	Lack of leadership	24	20.00	XI
12	Lack of co-operation	23	19.17	XII
13	Inadequacy of capital	16	13.33	XIII

(* - Multiple responses recorded)

From table: 1., it was seen that lack of co-ordination among the respondents (80.83%) acts as a major constraint for the respondents secured 1st rank, followed by lack of availability of improved implements (66.67%), easy breaking of bunds (64.17%), irregular supply of canal water for irrigation in cropping area (51.67%), non-availability of credit in time (48.33%), water sewage problems (42.50%), high labour wages (41.67%), poor resources (35%), high cost inputs (33.33%), timely non-availability of quality input (30.83%),

lack of leadership (20%), lack of co-operation (19.17%), inadequacy of capital (13.33%) secured 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th and 13th rank respectively.

Suggestions for better adoption of the programme

The suggestions given by the respondent farmers for better adoption of the programme are presented in the table. 2. And fig 2.

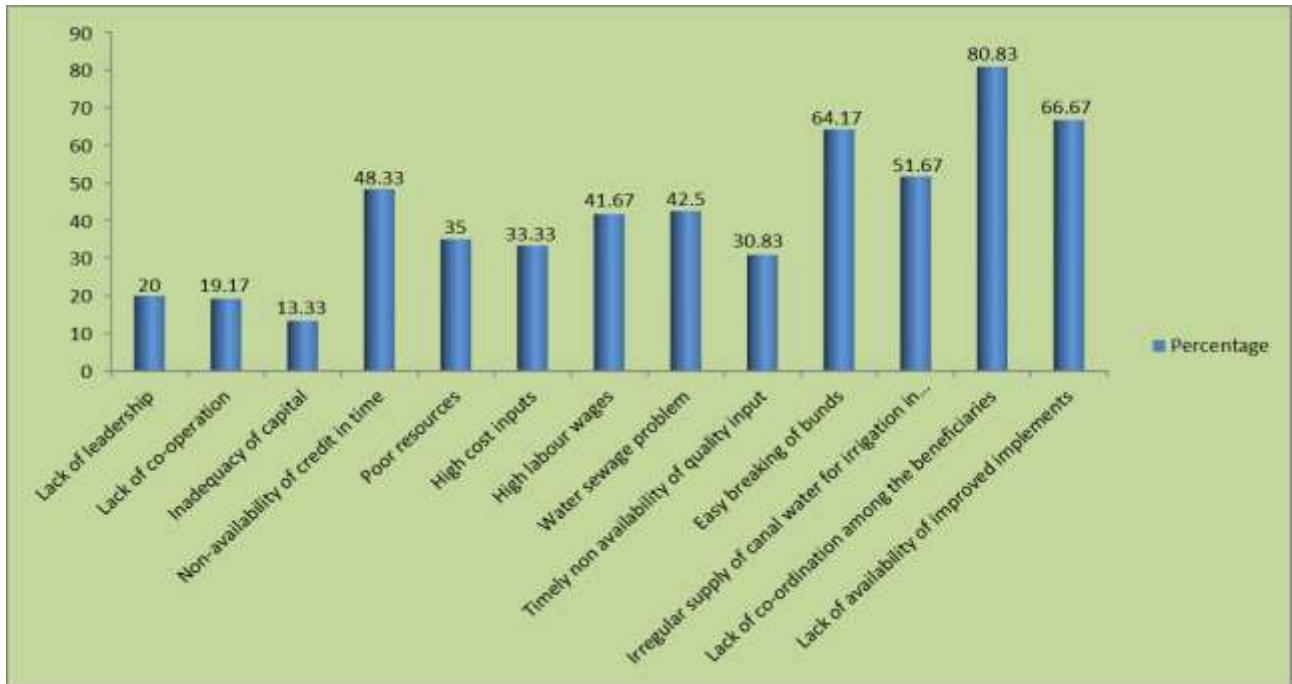


Fig 1: Constraints experienced by the respondents farmers in adoption of the programme

Table 2: Suggestions given by the respondent farmers for improvement of the programme (n=120)*

S. No.	Suggestions	Response		
		Frequency	Percentage	Rank
1	Providing regular supply of canal water for irrigation in cropping season	112	93.33	I
2	Availability of improved implements	104	86.67	II
3	Providing solution for water sewage problems	102	85.00	III
4	Providing credit for farmers	98	76.67	IV
5	Reduced labour wages and cost of inputs	80	66.67	V

(* - Multiple responses recorded)

From table.2, it was revealed that providing regular supply of canal water for irrigation in cropping season was the most suggested suggestions given by the respondents secured 1st rank (93.33%), followed by availability of improved implements (86.67%), providing solution for water sewage

problems (85%), providing credit for farmers (76.67%) and reduced labour wages and cost of inputs (66.67%) secured 2nd, 3rd, 4th and 5th rank respectively were the suggestions given by the beneficiary farmers for better adoption of the programme.

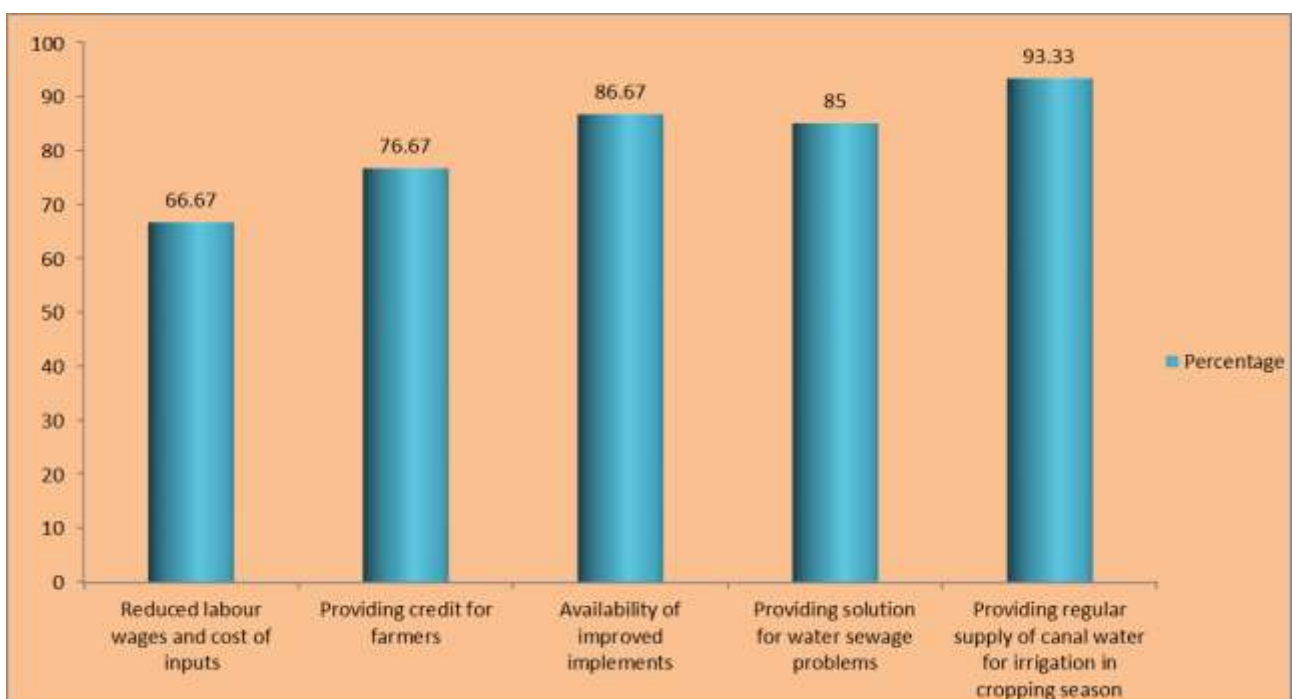


Fig 2: Suggestions given by the respondent farmers for improvement of the programme

Constraints of the Respondents

Lack of co-ordination among the respondents (80.83%) acts as a major constraint for the respondents secured 1st rank, followed by lack of availability of improved implements (66.67%), easy breaking of bunds (64.17%), irregular supply of canal water for irrigation in cropping area (51.67%), non-availability of credit in time (48.33%), water sewage problems (42.50%), high labour wages (41.67%), poor resources (35%), high cost inputs (33.33%), timely non-availability of quality input (30.83%), lack of leadership (20%), lack of co-operation (19.17%), inadequacy of capital (13.33%).

Conclusion

The beneficiaries' primary and most significant restraint was determined to be a lack of coordination among themselves, with insufficient capital serving as the least significant constraint. Providing a consistent supply of canal water for crop irrigation during the cropping season was ultimately the most recommended element by the program's beneficiary farmers for improved program uptake. The respondents cited time-consuming operations, land fragmentation into irregular shapes, water stagnation in banded areas, etc. as their main challenges. One of the most important recommendations made by the participants was to offer financial support for these activities. To get past these obstacles, the government can support cooperative farming, offer training on water conservation, and ensure that input is available when needed.

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