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## Gender mainstreaming in watershed management programme: An exploratory study

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### Abstract

The initiatives of women participation and gender mainstreaming were assessed in three categories namely programme planning phase, social dimensions and technological dimension. Present study was carried out in two villages of *Badgoan* panchayat samittee of Udaipur district of Rajasthan. Data were collected from fifteen beneficiaries and fifteen non-beneficiaries women. The economy of the district was primarily based on agriculture and among the sample population it was found that all the respondents were engaged in agriculture activities. The representation of sample population in watershed areas covered almost all the castes/communities Sixty per cent respondents fully agreed that there was mutual trust and rapport between project team and women in watershed management committees about selection of convenient place for women's participation, ensuring gender equality in access to project resources, and sensitizing the agencies of watershed programmes about the needs and constraints of women. Among technological dimensions majority of beneficiary women fully agreed that regular training/technical guidance were given to women.

**Keywords:** Gender mainstreaming, Social Dimensions, Technical Dimensions, Women participation, Watershed management programme.

### Introduction

Gender mainstreaming is the process of assessing the implications for women and men of any planned action, including legislation, policies and programmes in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men can benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality. In the area of water resources management, an uncoordinated and sectorial approach has resulted in environmental degradation from overexploitation of water resources, inappropriate allocations among competing uses, inequitable distribution of benefits and burdens, and inadequate operation and maintenance of infrastructure. Inadequate involvement of both women and men has hindered programmes and projects aimed at addressing sustainability in water resources management. Community participation and management approaches have failed to address these issues, largely because communities are often seen as a collection of people with a common purpose.

Watershed management programmes have emerged as an appropriate strategy to manage natural resources (land, water and forests) and to provide sustainable livelihood to the rural poor. It is a holistic concept which tries to integrate several components like soil and water conservation, forestry development, agriculture, horticulture, livestock development etc. It has led to several dimensions of sustainable development, e.g. ecological sustainability (check in soil erosion, check in rate of silting, groundwater recharge etc.), economic sustainability (increase in crop intensity and crop productivity, milk production, etc.) and social sustainability, (equitable distribution of common property resources like water, forest produce and ensuring peoples' participation. Mittal and Aggarwal (2005) <sup>[1]</sup>, the principal reasons to take watershed management as a holistic task for the development of mankind. The watershed approach to natural resource management connects all the components economy, society, and

Environment forms a comprehensive approach to management of agriculture, forestry and allied activities in the proposed watershed. These programs were inducted to improve productivity and the production potential of the dry and semi-arid regions through the adoption of appropriate production and conservation techniques. With a focus on checking run-off reduction, soil and water conservation measures, watershed development seeks to develop all types of lands government, forest, community and private lands that fall within a particular watershed. Present investigation was undertaken with an objective to study the initiatives of women participation and gender mainstreaming in watershed management programme of government in Udaipur district of Rajasthan.

### Methodology

Data were collected from the head of each household through a specially designed interview schedule supplied by the ICAR-CIWA, using focused group discussion, in depth interview etc. Besides primary data collection, block level and district level officials involved in the project were also contacted for detailed information in connection with the implementation of the programme. From two selected villages thirty respondents were selected, fifteen beneficiaries and fifteen non beneficiaries Local dialect was used as and when

required. Suitable statistical techniques were used to analysis the data.

### Results and Discussions

#### The demographic information of the respondents

Table 1 provides information about the demographic personal variables of the respondents from the beneficiaries and non-beneficiaries group. In both the groups' majority of them were from the age group of 18-35 years of age with 40% and 67% respectively. In case of beneficiaries 33% were in age group 35-50yrs followed by 27% in age group of above 50yrs. Regarding their counterparts it can be stated that same trend was followed with 20% and 13% respectively. In case of marital status it's clearly evident from the table that all (100%) subjects were married. With regard to educational qualification two third (10 subjects) beneficiaries were illiterate with 67% followed by 13% in the category of can read and write. Only one (7%) of them was educated up to higher secondary and one (7%) was post graduate. It was observed that in the group of non-beneficiaries 53% were illiterate, 20% can read and write, 13% were educated up to middle class. Equal number of respondents (1) were in the categories of primary, graduate and post graduate level respectively.

**Table 1:** Distribution of the respondents by their personal variables n = 30

S. No.	Particulars	Beneficiaries (n=15)		Non-beneficiaries (n=15)	
		f	%	f	%
1.	Age (years)				
	a) 18 - 35	6	40	10	66.67
	b) 35- 50	5	33.33	3	20.00
	50 above	4	26.67	2	13.33
2.	Marital status				
	a) Unmarried	0	0	0	0
	b) Married	15	100	15	100
3.	Education				
	a) Illiterate	10	66.67	8	53.32
	b) Can read and write	2	13.33	3	20.00
	c) Primary	1	6.67	1	6.67
	d) Middle	0	0	2	13.33
	f) Higher secondary	1	6.67	0	0
	g) Graduate	0	0	1	6.67
	h) Post graduate	1	6.67	0	0

Table 2 envisages the information regarding distribution of the respondents on the basis of social variables. It was found that in both the group majority of them were belonging to ST with 47% and 33% respectively, followed by OBC with 30% and 20% respectively. Among remaining subjects of beneficiaries group 26.67 per cent was SC and only 6.67 per cent was upper caste. With respect to non-beneficiaries 20 per cent were OBC and 6.67 per cent was SC. Looking into the family structure aspect, it was observed regarding type of family the ratio were 33:67 and 40:60 for nuclear and joint families belonging to beneficiaries and non-beneficiaries

group respectively. It can be stated about size of family that two third (10) of beneficiaries were having 5-8 members in their family, followed by small family. Only one of them was belonging to large family that is living with more than 8 members. With regard to non-beneficiaries sample, they were 48% and 52% for medium and small families respectively. The results related to decision making envisaged about decision making pattern, it was found that in beneficiaries group the two third subjects (10) male members were decision makers, followed by 13% females.

**Table 2:** Distribution of the respondents on the basis of social variables n = 30

S. No	Particulars	Beneficiaries (n=15)		Non-beneficiaries (n=15)	
		f	%	f	%
1.	Caste				
	a) SC	4	8	1	6.67
	b) ST	7	46.67	11	73.33
	c) OBC	3	30	3	20.0
	d) Upper caste	1	6.67	0	0

2.	Occupation				
	a) Farming	13	86.67	12	80
	b) Business	0	0	0	0
	c) Service	1	6.67	1	6.67
	d) Daily wage earner	1	6.67	2	13.33
3.	Family Structure				
(i).	Family type				
	(a) Nuclear	5	33.33	6	40.00
	(b) Joint	10	66.67	9	60.00
(ii)	Family size				
	(a) Small (up to 4 members)	4	26.67	8	52.66
	(b) Medium (up to 5-8 members)	10	66.7	7	46.67
	(c) Large (8 and above)	1	6.67	0	0
4.	Decision making pattern				
	a) Male Head	10	66.67	7	46.66
	b) Female	2	13.33	0	0
	c) Both	3	20.00	8	53.33

Only 20 per cent were involved in joint decision making. In case on non-beneficiaries, 53.33% were indulge in joint decision making followed by 40 % male decision makers. No one female amongst them was decision maker.

### Gender Mainstreaming

The initiatives of women participation and gender mainstreaming were assessed in three categories namely programme planning phase, social dimensions and technological dimension.

While comparing the programme planning phase between watershed management available women and not available women group it was found that majority of the women benefitted through water shed management programme reported that they partially agreed to the effects taken up by the programme to emphasize the needs of women (66.67%) while women without water shed management disagreed (6.67%) for the importance of women based activities due to lack of the programme in their locality.

**Table 3:** Distribution of beneficiaries and non-beneficiaries by participation in watershed programme

S. No.	Measures	Degree of Agreement					
		Beneficiaries			Non beneficiaries		
		Fully agreed	Partially agreed	Not agreed	Fully agreed	Partially agreed	Not agreed
1.	The watershed programme were based on women's needs and demand-driven	9 (66.67)	6 (40)	0 (0)	9 (66.67)	6 (40)	0 (0)
2.	Involving women in identification of field problems	8 (53.32)	7 (46.67)	0 (0)	2 (13.33)	7 (46.67)	6 (40)
3.	Felt needs of women were taken into consideration in project planning and implementation	8 (53.32)	6 (40)	1 (6.67)	1 (6.67)	5 (33.33)	9 (66.67)
4.	Women were involved in preparation of action plan	7 (46.67)	6 (40)	2 (13.33)	2 (13.33)	8 (53.32)	5 (33.33)
5.	Ensuring women's involvement in prioritizing the project activities	7 (46.67)	6 (40)	2 (13.33)	3 (20)	7 (46.67)	5 (33.33)
6.	Information dissemination well in time	8 (53.32)	6 (40)	1 (6.67)	0 (0)	7 (46.67)	8 (53.32)

This showed that the programme planning phase was better in water shed management areas. Identification of field problems through women was agreed by nearly fifty three percent of the women in watershed areas while only thirteen percent agreed to the same in non-water shed programme areas. Seventy eight percent of the women in watershed areas felt that women's needs were taken into consideration while planning and sixty five percent. Slightly less than half of beneficiaries fully agreed that women were involved in preparation of action plan. In areas of water shed programme the women were informed on time as reported by 53.32% and fifty percent agreed completely about the information dissemination in time for them.

### Social Dimensions

It includes alleviation of poverty, awareness generation, improving skills of the local community, capacity building activities, women's participation in decision-making process, empowerment of the community, etc.

Results related to social dimensions in table 3.2 stated that amongst all 9 respondents (60 %) were fully agreed that developing mutual trust and rapport between project team and women in watersheds should be there followed by 33.33% and 6.67% who were partially and not agreed correspondingly and fifty three percent had reported that the timings were according to their schedule and comfort. While in non-water shed areas only 6.67 percent reported that they had good rapport with people but they lacked any group or project.

**Table 4:** Distribution of beneficiaries and non-beneficiaries by Social dimensions n=30

S. No.	Measures	Degree of Agreement					
		Beneficiaries			Non beneficiaries		
		Fully agreed	Partially agreed	Not agreed	Fully agreed	Partially agreed	Not agreed
1.	Developing mutual trust and rapport between project team and women in watersheds	9 (60)	5 (33.33)	1 (6.67)	1 (6.67)	6 (40)	8 (53.32)
2.	Maintaining the time schedule as preferred by women	8 (53.32)	7 (46.67)	0 (0)	2 (13.33)	4 (26.67)	9 (60)
3.	Selection of convenient place for women's participation	9 (60)	6 (40)	0 (0)	4 (26.67)	6 (40)	5 (33.33)
4.	Women's voices were encouraged in group meetings and avoiding criticism	12 (80)	3 (20)	0 (0)	3 (20)	6 (40)	6 (40)
5.	Including measures to avoid conflicts among men and women or among women, due to social strata	9 (60)	5 (33.33)	1 (6.67)	2 (13.33)	6 (40)	7 (46.67)
6.	Including women in the resource management committees	5 (33.33)	8 (53.32)	2 (13.33)	5 (33.33)	7 (46.67)	3 (20)
7.	Ensuring gender equality in access to project resources	9 (60)	6 (40)	0 (0)	5 (33.33)	8 (53.32)	2 (13.33)
8.	Sensitizing the agencies of watershed programmes about the needs and constraints of women	9 (60)	6 (40)	0 (0)	2 (13.33)	8 (53.32)	5 (33.33)
9.	Sensitizing the villagers about gender mainstreaming in agriculture	7 (46.67)	8 (53.32)	0 (0)	2 (13.33)	5 (33.33)	8 (53.32)

Though the water shed management areas had a project planning team they were lacking in areas such as convenience in places (60%), conflict resubmission (60%), gender equality (46.67%), and sensitization (60%). This showed that still forty percent of the women in water shed areas were lacking the social dimensions which might be due lack of management in the project. Such social dimensions were completely not agreed and accepted by the women in non-water shed areas. 60% respondents were fully agreed that sensitizing the agencies of watershed programmes about the needs and constraints of women followed by 40% who were partially. Among all 53.32% respondents were partially agreed for sensitizing the villagers about gender mainstreaming in agriculture followed by 46.67% who were fully agreed.

### Technological dimensions

Results associated with technological dimensions are presented in table stated that amongst all nine respondents (60%) were fully agreed that regular awareness creation among women on the avenues for livelihood in watersheds should be there followed by 40% who were partially agreed. 62% respondents were fully agreed that regular training/technical guidance were given to women followed by 36% and 2% who were partially and not agreed. Sixty two percent completely accepted that they receive training, forty seven percent reported that they agree on traditional knowledge new technologies and initiatives were partially agreed by 53.32 percent and they reported that communication channels was completely good for them.

**Table 5:** Distribution of beneficiaries and non-beneficiaries by Technological dimensions n=30

S. No.	Measures	Degree of Agreement					
		Beneficiaries			Non beneficiaries		
		Fully agreed	Partially agreed	Not agreed	Fully agreed	Partially agreed	Not agreed
1.	Regular awareness creation among women on the avenues for livelihood in watersheds	9 (60)	6 (40)	0 (0)	1 (6.67)	5 (33.33)	7 (46.67)
2.	Regular training/ technical guidance were given to women	12 (80)	2 (13.33)	1 (6.67)	2 (13.33)	8 (53.32)	5 (33.33)
3.	Making use of women's traditional knowledge of resource management	7 (46.67)	8 (53.32)	0 (0)	5 (33.33)	8 (53.32)	2 (13.33)
4.	Looking for ways in which inputs and new technologies can be channelled effectively to reach women	5 (33.33)	8 (53.32)	2 (13.33)	1 (2)	7 (46.67)	7 (46.67)
5.	Awareness creation and capacity building in watershed area with women friendly technologies	8 (53.32)	7 (46.67)	0 (0)	3 (20)	7 (46.67)	5 (33.33)
6.	Use of appropriate communication channels	12 (80)	3 (2)	0 (0)	1 (6.67)	2 (13.33)	12 (80)
7.	Proper documentation of feedback from women	7 (46.67)	7 (46.67)	1 (6.67)	2 (13.33)	9 (60)	4 (26.67)

Documentation and feedback was done as reported by seventy two percent (partially agreed). While comparing the results with non-water shed areas they had reported that they lack in communication channels (87%), awareness on new technologies and training was low for them and they

disagreed about the women emphatic programme due to various reserve problems and they need such development on technological dimensions for their development.

### Gender mainstreaming checklist

**Table 6:** Per cent distribution of respondents according to gender mainstreaming checklist (n=15)

S. No.	Checklist	Yes		No	
		f	%	f	%
1.	Had gender disaggregated data been collected and considered in project planning and implementation?	14	93.33	1	6.67
2.	Had specific needs of women and men been identified, considered and integrated in designing the programme?	5	33.33	10	66.67
3.	Had resources been allocated to address the identified needs of women?	14	93.33	1	6.67
4.	Did the programme facilitate leadership development among women?	15	100	0	0
5.	Did the programme increase the process of women to agricultural information and extension services?	13	86.67	2	13.33
6.	Did the programme provide visibility and recognition to women?	15	100	0	0
7.	Did the programme address poverty and unemployment of women?	13	86.67	2	13.33
8.	Did the programme address health and nutrition of women?	14	93.33	1	6.67
9.	Was there any restrictions/limitations, imposed on women by the programmes?	5	33.33	10	66.67
10.	Had the promotional contents of the project (printed material, folders, and mass media) were presented in a gender sensitive manner?	13	86.67	2	13.33
11.	Was the medium of promotion (e.g. venues, channels or time slots) effective in reaching the target women group?	14	93.33	1	6.67
12.	Was gender sensitive language used throughout the programme, or in the related official documents?	7	46.67	8	53.32
13.	Weather the extension agent (male/female) was compatible with farm women as per their preference?	14	93.33	1	6.67
14.	Did the program provide any opportunity for development of women entrepreneurship?	14	93.33	1	6.67
15.	Was the budget for the programme, gender responsive?	13	86.67	2	13.33

Table 6 presented the findings for per cent distribution of respondents according to gender mainstreaming. Results revealed that all of them (15) were said Yes that the programme facilitate leadership development among women and the programme provide visibility and recognition to women. Further 14 subjects said Yes that gender disaggregated data been collected and considered in project planning and implementation, resources been allocated to address the identified needs of women, programme should address health and nutrition of women, the medium of promotion (e.g. venues, channels or time slots) effective in reaching the target women group, gender sensitive language used throughout the programme, or in the related official documents, the extension agent (male/female) was compatible with farm women as per their preference, the program provide any opportunity for development of women entrepreneurship. Questions about programme increase the process of women to agricultural information and extension services, the programme address poverty and unemployment of women, the promotional contents of the project (printed material, folders, mass media) were presented in a gender sensitive manner and the budget for the programme, gender responsive 13 subjects(86.67%) were responded as Yes by them. In case of the query related to the specific needs of women and men been identified, considered and integrated in designing the programme and any restrictions/limitations, imposed on women by the programmes 66.67% were responded as No whereas remaining 33.33% said Yes.

Respondents were also asked about the formation of self-help group in the area, it was found that the participation of respondents in watershed areas was satisfactory. However, the formation of Self Help Groups (SHGs) among the beneficiary households was not encouraging. This may be due to lack of knowledge of respondents about self-help group or lack of efforts by the officials. The SHGs could have been promoted among the beneficiaries for empowering especially the women.

### Conclusion

Based on the study it can be concluded that the impact watershed activities among the beneficiary households was quite positive. The results related to decision making envisaged about decision making pattern, it was found that in Only 20 per cent were involved in joint decision making. In

case on non-beneficiaries, 53.33% were indulge in joint decision making followed by 40 % male decision makers. It was revealed that majority of the women benefitted through water shed management programme reported that they partially agreed to the effects taken up by the programme to emphasize the needs of women (66.67%) while women without water shed management disagreed (6.67%) for the importance of women based activities. Among all slightly more than half of the respondents were partially agreed for sensitizing the villagers about gender mainstreaming in agriculture followed by 46.67% who were fully agreed. While comparing the results with non-water shed areas majority of women reported that they lack in communication channels, awareness on new technologies and training was low for them and they disagreed about the women emphatic programme due to various reserve problems and they need such development on technological dimensions for their development.

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