Extent of Participation of Beneficiaries in the Different Micro-Agro Eco Systems of Ghorbae Watershed Area in Shahdol District, Madhya Pradesh

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ABSTRACT

Present study was conducted in Ghorbe micro watershed of Shahdol district of Madhya Pradesh. Ghorbe watershed was a people centered effort to develop natural, social as well as human resources. In spite of efforts made, empowerment of the people was low to moderate. Participation of the communities were in various forms viz., donation of land, materials, man power, social fencing and decision making in mobilization of resources within the watershed area. The few indicators of participation and empowerment were visible in Ghorbe watershed area. The age, gender and size of farm holding had non significant relationship with the extent of participation while it was significant with education, family composition, caste, occupation, annual income, infrastructure facility, land topography, type of soil, irrigation facility and cropping pattern of the respondents. Majority of the people on the upstream side exhibited a low level of participation while those along the downstream side of watershed area participated more.

Key words: *Micro watershed; Empowerment; Participation;*

In India, Watershed management projects are designed to harmonize the use of water, soil forest and pasture resources in a way that conserves these resources while raising agricultural productivity, both through in-situ moisture conservation and increased irrigation through tank and aquifer based water harvesting. The unit managed in the project is a micro watershed of 500 hectares. A village may contain one or more micro watershed and, or a micro watershed may contain part of two or more villages. Many watershed management projects have performed poorly because they failed to take in to account the needs, constraints and practices of local people. In participatory watershed management the users help to define problems, set priorities, select policies, technologies, monitor and evaluate impacts are expected to improve performance.

People's participation is an essential process to the development. It encompasses the institutional structure, and socio psychological factors. Greater awareness towards local infrastructures and its functioning, transparent policies with broader perspective increases people's participation. Group cohesiveness and motivational factors increase the power in organization and give significant positive result in participation. Development planning activities should be based on the local needs and conditions. In this context present study was carried out.

METHODOLOGY

The present study was conducted in Ghorbe micro watershed in Shahdol district of Madhya Pradesh. Shahdol is predominant tribal district of Madhya Pradesh. Baiga, Kole and Gond are the main tribal communities inhabiting the district. Multi stage sample selection method was applied for the selection of district, watershed, micro watershed and respondents. District Shahdol was purposely selected for the present study and out of the 19 watershed, Ghorbe watershed of Burhar Block was randomly selected. A list of all the members of the 221 households belonging to the Ghorbe

Table 1: Association between demographic characteristics of people's and their extent of participation in watershed development

S. No	Particulars	Extent of participation			x^2	C	
		Low	Medium	High			
1	*Age*						
	Young	22	34	30			
	Middle	21	38	20	7.98	0.18	
	Old	23	21	12			
2	*Gender*						
	Male	60	89	61	3.37*	0.12	
	Female	6	4	1			
3	*Education*						
	Illiterate	46	45	23	13.10**	0.23	
	Can read & write	14	25	14			
	Primary level schooling	3	13	11			
	Middle level schooling	2	7	10			
	Higher secondary level schooling	1	3	4			
4	*Family composition*						
	Small	38	33	27	7.84*	0.18	
	Medium	25	54	22			
	Large	3	6	13			
5	*Caste*						
	Other backward caste (OBC)	2	4	6	6.26*	0.16	
	Scheduled caste (SC)	3	3	5			
	Scheduled Tribes (ST)	61	86	51			
6	*Occupation*						
	Labour + MFP collection	14	2	0	10.86*	0.21	
	Agriculture	6	21	10			
	Agri + labour + MFP	30	40	20			
	Agri + Allied Profess	16	30	32			
7	*Annual income*						
	Low	37	40	15	14.33*	0.24	
	Medium	20	36	27			
	High	9	17	20			
8	*Infrastructure facilities*						
	Low	51	48	34	11.55**	0.21	
	Medium	12	40	14			
	High	3	5	14			
9	*Size of farm holiday*						
	Marginal	1	9	6	1.71	0.08	
	Small	43	53	30			
	Medium	17	26	20			
	Big	5	5	6			
10	*Topography*						
	Plain	30	45	42	7.46*	0.18	
	Undulating	36	48	20			
11	*Soil Type*						
	Sandy soil	30	32	19	1.30*	0.22	
	Mixed soil	36	48	20			
	Loamy soil	23	34	35			
12	*Irrigation facilities*						
	No irrigation	32	30	15	15.18**	0.25	
	Partial irrigation	20	45	23			
	Fall irrigation	23	18	24			
13	*Cropping pattern*						
	Mono cropping	32	31	15	9.04*	0.19	
	Double cropping	34	62	47			

micro watershed area were prepared on the basis of Participatory Rural Appraisal (PRA) technique and included as respondents in this present study. *Temu and Due (2000)* in their research on the participatory appraisal approach verses sample survey, method of data collection reported that, results through PRA are valid and approach has greater reliability than the conventional survey method.

RESULTS AND DISCUSSION

The extent of participation of young group was more than the middle and older age groups in the watershed development programmes. Majority of young and middle aged groups had medium level of participation. However the age of the respondents had non significant association with their extent of participation. Though majority of the household were headed by males but it was not significant with the respondents' participation. The level of participation increased with the level of education and was significantly associated. Size of the family had a significant association with the level of participation. Caste of the respondents had a significant relation with the extent of participation. Occupation of respondents had a significant relation with the extent of participation. Non significant relationship of extent of participation was observed with age, gender and size of farm holding. A significant association of extent of participation had been observed with education, family composition caste, occupation, annual income, infrastructure facilities and cropping pattern of the respondents (Table 1).

Ghorbe watershed has two different types of situation at micro level as identified MAES-I. It may be concluded that higher percentage of low extent of participating people were in MAES-I, while higher percentage of high extent of participating people were in MAES-II. The x^2 value (6.50) is found to be significant for 2df at 0.05 level of probability, reveals that extent of participation of the respondents had significantly associated with MAES. The value of coefficient of correlation (0.16) shows negligible association between extent of participation and MAES.

Table 2. Extent of people's participation in the different micro agro-ecosystems of Ghorbe WDP

Extent of participation	Micro agro ecosystem		x^2	C
	MAES-I	MAES-II		
Low	37	29	6.50	0.16
Medium	46	47		
High	21	41		

A clear differentiation of MAES in Ghorbe micro watershed emerged only after six month of working with the people, on the basis of demographic pattern, soil type, topography, biodiversity, irrigation facility, cropping pattern and other specific features, two micro agro-eco-systems (MAES-I and MAES-II) were identified and analyzed (Table 2). Ghorbe micro watershed was a people centered effort to develop natural social as well as human resources; however, empowerment of the people was low to moderate. The similar results were also reported by *Kerret et. al.(1996)* and *Farrington and Lobo, (1997).*

CONCLUSION

Watershed area development project in Ghorbe throughout witnessed an impressive improvement in its different fields and significant association with important attributes. An integrated effort still is awaited both from administrative and technical side as well as from the side of the respondents. So that each drop of natural precipitation of rain may be preserve and utilized for various economic and social activities for sustainable household incomes and food security.

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