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The Role of Rural Women in Watershed Development Project

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Abstract— Women especially from the small and marginal farming families perform over 60% of on-farm activities and almost all off-farm activities. Village women play an important and significant role in watershed development activities. The present study was carried out in k.Puthukottai of Reddiyarchatram block of Dindigul District in Tamilnadu to know the level of participation of village women in watershed development practices. Today the women's role is more and more seen as the key for managing social interaction with nature. Such role could be instrumental in dealing with the current crisis in the k.puthukottai watershed. This study investigated women's participation in watershed management at the household level using a theoretical model based on elements from the gender socialization theory and empowerment theory to find out what women know, how they manage, and what factors are related to their empowerment. Data from questionnaires from 50 women in k.puthukottai village was analyzed. The study revealed that village women had medium/average participation in watershed practices and also important significant role in the watershed. The income level benefit increased after implement the watershed project.

Key words: Rural women; Participation; Watershed development; Experiences.

I. INTRODUCTION

The total population of India is about 1.21 billions, out of which the rural populations of India is about 69.9 per cent. In rural population 48.37 per cent are females. A characteristic feature in the present day rural area is remoteness, absence of good communication facilities and poor utilization of natural resources. The State of Tamil Nadu is among the few States of India, which has lower infrastructural development than the national standards, in rural areas. Rainfed agriculture in India is characterized by low productivity, degraded natural resources and widespread poverty. This issue made the development planners to implement productive, environmentally sustainable, socially equitable, land and water management. It is in this context, the concept of watershed development has been introduced in our country. A watershed is a geographical area that drains to a common point, which makes it an attractive unit for technical efforts to conserve soil and maximize the utilization of surface and sub-surface water for crop production (Kerr, et al, 2000).

Watershed development has been conceived basically as a strategy for protecting the livelihoods of the people inhabiting the fragile ecosystems experiencing soil and moisture stress. The aim has been to ensure the availability of drinking water, fuel wood and fodder and raise income and employment for farmers and landless laborers through improvement in agricultural production and productivity (Rao, 2000). Watershed development has been conceived as one of the important rural development programmes in India where the rain fed agriculture is characterized by low productivity, degraded natural resources and widespread poverty. The Self-Help Groups (SHGs) in micro watersheds have received much attention from the policy makers and others for their perceived ability to contribute significantly to the economic growth and poverty alleviation. The formation of SHGs has been made mandatory in all watershed development programmes in the country. The Project Implementing Agency (PIA) has been empowered to constitute SHGs in the watershed areas. These groups are homogenous groups having common interest who are dependent on the watershed area such as: landless laborers, agricultural laborers, rural women, shepherds, scheduled castes/tribes etc. Around 50 per cent of villagers who are directly or indirectly dependent on watersheds should generally be enrolled as members in the SHGs. Evidences show that the SHGs are formed mostly for Women-oriented activities. Separate SHGs should be formulated for Women, Scheduled Caste (SC) and Scheduled Tribes (ST). SHGs function mostly as thrift, savings and lending groups and experiences show that there are vast differences in functioning. In addition, the SHGs are also formed for activities such as: coconut palm thatches knitting, running canteen, sweet stalls, grocery shop, petty shop, rice mundy, textile shops etc (Palanisami et al, 2002). Women spend 2.2 hours/day/household in animal care activities. Men



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contribute about 50% of the labour involved in grazing activity only. All other activities such as shed-cleaning, milking, harvest and transport of grass for livestock are performed exclusively by women. Women spend about 31% of their labour in animal care activities. Women and children together put in about 60% of the labour in various livestock maintenance activities. In a Himalayan village in Uttar Pradesh women spend about 547.5 hours/person/year in animal care activities and 1621 hours/person/year in fodder collection activities along with children, mainly girls. Studies in Pakistan, Egypt and Chile have shown that rural women do about 80-100% of the work of maintaining and managing poultry. Women are responsible for over half the food production in developing countries. The major component of women's labour in crop production is utilized in transplanting, weeding and harvesting activities. These activities are arduous, time-specific and critical operations, and determine the productivity of crops. According to one study, of every 100 "man-hours" in various agricultural operations, 74 are woman-hours. Women generally are not involved in activities where bullocks are used such as ploughing and transport. Studies on agricultural operations show an increasing involvement of women in crop production. However, the role of women in the planning of agricultural development is marginal.

The rural population of Tamilnadu constitutes around 55.59 per cent of the total population of the State (2011 Census). Such rural people have a definite way of life and particular socio-cultural and religious characteristics. The government efforts have been directed to bring about social, economical, educational and cultural development of the people by implementing various programme like watershed management programme. People's willingness and cooperation are the important factors, which determine the success of watershed development programme. Watershed development is essentially a group and community oriented programme. Rural women actively participate in different activities i.e. soil-water conservation, crop production practices, practices for fodder, fuel and vegetable production and other practices like poultry, goat rearing, small scale industry etc. But rural women's contribution in sustainable agriculture system and watershed practices has been inadequately understood or largely ignored. Hence, an investigation was conducted with the following specific objectives:

1. To determine the extent of participation and role played by rural women in watershed development programme.
2. To know the association of socio-personal with extent of participation.

II. STUDY AREA

K.Puthukottai watershed is situated in Reddiarchatram block of Dindigul District, Tamil Nadu. K.Puthukottai watershed covers an area of about 1218.50 ha. The study area lies between 77°55'15" latitude and 77°47'5" longitude. The inhabitants of K.Puthukottai watershed depend on agriculture for their livelihood. Devar hills is the ridge point of the watershed, there were many gullies flowing from Devar hills towards the valley. Athimadai odai, Palam puthu odai and Kolipannai odai are the important gullies in the watershed.

III. METHODOLOGY

The study was conducted during 2012 in K.Puthukottai village of Reddiarchatram block of Dindigul district. The methodology adopted for the present area includes collection of following data:

- Personal interview and discussion from local rural women
- Observations of the SHGs in the watershed
- Analysis of the income level benefits from the watershed
- Focus group discussions with SHG group member.

IV. RESULTS AND DISCUSSION

In general, watershed programmes had been purely land based development programmes and there had been only a marginal scope for involving women and landless poor. In fact, it is women who attend to collection of fuel wood, fodder, non wood forest produce etc., in rural areas, but their choices or opinions have been often ignored. Though women are being involved in watershed programmes, their involvement in watershed management had been limited mainly due to limitations such as lack of land ownership (entitlements), credit and capabilities, low literacy, lack of productive skills and suitable technologies etc. In general following were observed.

- Women get Opportunity to earn wages through earth treatment in the watershed.
- Increase availability of drinking water in the watershed area.
- Foods through increase in cropping intensity in the watershed.
- Increase in fuel wood availability on common land.
- Provision of water for women in productive use.



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A. WOMEN PROMOTION/ GENDER INTEGRATION

For gender mainstreaming and empowerment of women, women are involved at every stage of the project. The VWC (Village Watershed Committee) has at least 30% representation by women. Further, there is a special provision of Women's Development Fund under the programme by earmarking 5% of project funds for forming SHGs and promoting savings and lending activities, and for taking up 'Social Development' and 'Income generating activities'. A trained Lady Social Worker is employed to address women related issues. The activities which have been taken up by women out of this fund so far include:

- drinking water schemes,
- drainage repair,
- soak pits,
- kitchen gardens,
- community halls,
- flour mill on group basis,
- dairy, poultry, stall fed goat rearing,

B. WOMEN INVOLVEMENT

The natural resources which are directly concerned with rural poor women are drinking water, fuel wood and fodder. The needs of these women with specific reference to available natural resources have to be identified. The objectives of the watershed project should be framed based on the needs of women. Based on the requirement, exclusively women user groups can be formed or proper representation should be there in the user groups and watershed committees. Women should be involved in planning and implementation of watershed activities at all stages.

- Formation of women SHGs and networking them into user groups or watershed committees.
- Increasing access to resources, ownership of assets created.
- Imparting leadership skills to resourceful women and new skill development.
- Equal wages and opportunities.
- Sensitizing the women with respect to health education, nutrition, literacy, girl child education and social evils like dowry, child marriages, violence etc. Livelihoods, employment and linkages with banks.
- Participation in community development programmes.

Activities:

- Drinking water can be taken up as entry point activity. It can be augmenting the existing source or creating a new source or attending to fluoride problem etc.
- Soil moisture conservation measures like soil bunding, field bunding, raising agro forestry species on the bunds, rock fill dams; check dams can be taken up by women user groups.
- Raising plantations in the common lands and avenue plantation can be taken up.
- Horticulture, Vermiculture, green manuring.
- On-farm crop demonstrations of improved agronomic practices involving women farmers.
- Raising green fodder for cattle and teaching scientific feeding practices.
- Adopting smokeless Stove.
- Taking up various livelihood activities like tailoring, basket making, mat weaving, dairy, poultry etc.

Other Issues:

- Literacy: Enrolling the women in adult literacy programmes and encouraging them to send their children to schools and seeing that drops-out are made to rejoin in the school.
- Health and Sanitation: Utilizing the services of a health organizer in bringing awareness among women regarding nutrition/malnutrition, communicable diseases, family planning and personal hygiene. The women have to be encouraged to go for individual sanitary latrines.
- Women SHGs can play a vital role in attending to the above issues.

Communication of information

Information regarding the latest technologies in Agriculture, Agro Horticulture, Animal Husbandry etc., should be communicated to the women SHGs.

- *Training Programmes:* Skill enhancement programmes and other training programmes on natural resources management, livelihood aspects and leadership aspects should be imparted to women.
- Encouraging women with entrepreneurial capabilities and bringing out collective strength of women.
- Government and interested NGOs have to play a vital role in the form of financial assistance, facilitating bank linkages, imparting training programmes, inducing transparency and accountability etc.



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Expected Outcome

Women have to play a vital role in identification, prioritization and execution of all works through participatory approach involving all sections of people like women, men, farmers, landless and wage labour in the village. The collective social action will definitely result in empowering the women, improved wage employment, improved agricultural productivity, enhancement of sustainable livelihoods, improved education, health and family planning, adoption of non-conventional energy resources to reduce drudgery etc. If the watershed programmes are implemented with concern and sincerity, the women can be involved at all stages of implementation and the monetary and non-monetary returns will be significant.

C. INCOME-LEVEL BENEFITS FOR SELF HELP GROUPS

One of the major components of various watershed guidelines is poverty alleviation. Increase in agriculture production, livestock, and labour work are the major sources of increase in the income levels of watershed beneficiaries. Also the whole gamut of Watershed-Plus activities, which focused extensively on livelihood enhancement of resource poor people (especially the landless) by facilitating them through SHGs and credit supply, is expected to increase their income level. Along with poverty alleviation, many watershed project guidelines and various committee reports also mention the equity concerns in the watersheds, indicating the need to improve the economic and social conditions of the resource-poor and disadvantaged sections in the watershed community. However, while analyzing the equitable nature of the outcome of the watershed projects, the limitations of the watershed approach must be recognized. With this background, the next section analyzes the change in income of the people in the pre- and post project scenario and also explains this change in the background of equity across landholding status, which is also deeply rooted in the caste system. In the watershed area seven SHG benefited from NABARD loan (Table 1).

Table 1: Income level benefits for self help groups

Sl. No.	Name of the SHG	No of Members	Loan from NABARD (Rs)
1	Nelli SHG	12	360000
2	Mullai SHG	12	360000
3	Eyarkai SHG	12	360000
4	Muthalamman SHG	12	360000
5	Rajakaliamman SHG	12	360000
6	Kaliamman SHG	12	360000
7	Mariyamman SHG	12	360000

D. TRAINING AND DEMONSTRATION TO THE WOMEN

Training and demonstration is conducted in the K.Puthukottai area. Two training programs namely: vermicompost preparation and animal feed preparation, which were organized is found to be really helpful to the local Women. The impact of the training programs has resulted in implementing the above activities in their own lands (Table 2).

Table 2: Training and Demonstration

Sl. No.	Name of Training	No of Beneficiaries
1	Vermicompost Preparation	24
2	Animal feed Preparation	60

V. CONCLUSION

K.puthukottai village women play an important and significant role in watershed development activities. The role of Women in watershed projects is mainly to increase wages through the watershed earth works. The income generation activities were implemented through the watershed credit system. Village Women get livelihood assurance from watershed activities. Training and demonstration programs implemented have instilled confidence in them, resulting in implementation of vermicompost and animal feed preparation in their own lands. Another important role for women is their active participation in the watershed areas, through SHGs. Thus there is significant role and responsibility of women in watershed development activities of the project in the above region. This has resulted in better performance of the project and has also empowered the women especially their 'economic status'.

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