# Role of Self Help Groups (SHGs) among the Rural Farm Women in Relation to Labour Days and Income of the Seasonal Crops

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#### Abstract

Most woman participants sampled in Katwa Block- I of Burdwan district, India, were young in the age group between 26 -35 years; and predominantly on nuclear families. Most woman respondents were from Hindu SC & ST and Hindu OBC households. Muslim women rarely participated as agricultural wage laborers. In agriculture, women were engaged in various activities except in ploughing. Participation of rural women in agriculture in others' farm was highest in harvesting as well as in transplanting; and it varied with crop seasons. This study revealed that *kharif* was the main and busiest season of crop production; and there was a seasonability in wage employment and earning among the rural farm women. Both wage-employment and earning capacity increased among the rural women through participation in Self Help Groups. The most striking feature of this study was that there was no wage difference between the women labours of SHGs and non-SHGs.

Keywords: Farm women, wage-employment, seasonal variability in employment and earning, Self Help Groups.

## 1. Introduction

Women play a pivotal role in agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes (Team and Doss, 2011; Arshad et al., 2010; Pal, 2013). According to Ahmed and Hussain (2004) rural women play key roles in agriculture sector production by working with full passion in production of crops right from the soil preparation till postharvest activities. Aggregate data show that women comprise about 43 percent of the agricultural labor force globally and in developing countries (FAO, 2011). Moreover, according to the data of World Bank (2013), global female labour force participation is around 50 percent But, in fact, less value is given to their contributions, and rural women are less likely to realize their capacity to make a life better for themselves, families and communities (Akinsanmi, 2005). In a poor and developing country like India, the participation of women in the labour force is not only desirable, but also essential because it increases the level of food availability, nutrition, productivity and creates essential demands. Women's participation in the labour market also determines the structure of the household and the relationship within the family which are prime movers of the small family norms. It also results in the reduction in female fertility and improvement in the quality of lives. Thus, we can undoubtly say that women's participation in labour force seems to lead to multidimensional utilities relating to personal, economic social health and welfare sectors.

The process of economic empowerment among women can be institutionalized through Self Help Groups. The role played by Self Help Groups in the field of women empowerment is being recognized these days. The SHGs are characterized by a focused attention on providing employment opportunities by imparting training in order to generate both income as well as employment (Husain and Nair, 2006). The Self Help Groups are voluntary association of people formed to attain a collective goal. The members of SHGs are common in respect to social background, heritage, caste or traditional occupation come together for a common cause to raise and manage resources for the benefit of the group members (Kumar, 2011). These Self Help Group is a registered or unregistered group of micro entrepreneurs having homogeneous social and economic backgrounds; voluntarily coming together to save regular small sums of money, mutually agreeing to contribute to a common fund and meet their emergency needs on the basis of mutual help. (Jagtap and Goyal, 2012).

## 1.1 Objectives

The specific objectives of the study were-

- To analyze the contribution of women labour in farm activities,
- To analyze the variations of labour days and income with the seasonal crops,
- To analyse the income differences between the women labours of SHG and non-SHG.

## 1.2 Methodology

This study was conducted in ten villages under Katwa block- I of Burdwan district  $(12^0 \ 12'nd \ 12^0 \ 33')$  north latitude and between  $75^0 \ 55'$  and  $76^0 \ 55'$  east longitude). Usually the paddy is cultivated by the farmers followed by wheat, jute, potato and mustard. The important commercial crop grown in this district is sugarcane. Vegetable crops like cauliflower, beans, leafy vegetables, and plantation crops like coconut and banana are also grown in considerable area. In Katwa block- I, a total of 935 SHGs are working under the different banks like State Bank of India, United Bank of India, Bank of Baroda, Commercial Bank, Cooperative and Grameen Banks. Of all SHGs, 594 SHGs were engaged with agricultural works.

A sample of 200 rural women (100 SHGs and 100 non-SHG members) of Marginal Farm (MF) households from ten villages was selected randomly. Survey was mainly done on a pretested and modified format by open ended interviews about the participation of both SHG and non-SHG members in different farm activities. The data on women's empowerment along with participation in SHGs were obtained during 2014.

The sample respondents were classified based on age, family type, caste, education and their occupation. The age of respondents was studied at three levels- 20 - 35 yrs (young), 35-50 yrs (middle), and > 50 yrs. (old).

Respondents with their unmarried children were considered as 'nuclear families' and respondents with their married children living together was considered as 'joint families'. Caste was considered as Forward caste (Hindu), Forward caste (Muslim), OBC (Hindu), OBC (Muslim), SC & ST (Hindu) and SC & ST (Muslim). The education level was distributed as illiterate, primary level and middle level or above. On the basis occupation the respondents were classified as agriculture, agriculture labour agriculture and labour On the basis of their land holdings, women respondents were further classified as small farmers (1-2 ha) and marginal farmers (<1 ha). Women of Small Farm households were excluded in this study.

Data collected in this study were normally distributed. A Pearson's chi-square model was followed to examine variations among the women participants in relation to age, family size, caste composition, education level and occupation. Pearson's chi-square model was also followed to examine the seasonal variations among the crop seasons in relation to women's participation as lobours and also to examine the differences between the women labours of SHGs and non-SHGs in relation to their educational levels, in relation to their occupation and also to examine the differences between SHG and non-SHG members in relation to their educational levels, in relation to their labour days and income. Probability level for rejection of the null hypothesis was set at P < 0.05 for all tests.

## 2. Discussion and analysis

## 2.1 Distribution of respondents according to their Demographic characteristics.

The distribution of respondents in Table 1 shows that 59% of the woman respondents belonged to young age (20-35 yrs.) followed by, 34% respondents were into middle age group (35- 50 yrs.). Therefore, most respondents were young women in the age group between 20 to 35 years ( $\chi$ 2=40.57, df=2, p<0.0005). This trend was supported by Mishra et al. (2008), Bhardwaj & Gebrehiwot (2012). Moreover, there were no significant differences between SHG and non-SHG members in relation to their age (t=0.0001, df=2, p>1.000, Pal, 2014)). The classification of sample households based on family type shows that 66% belonged to nuclear families and 34% belonged to joint families (Table 1); and therefore, the sample was collected predominantly on nuclear families type ( $\chi$ 2=10.24, df=1, p<0.005). The similar pattern was found in NABARD model III (Bhardwaj & Gebrehiwot (2012) where nuclear families appeared in largest proportion. Perhaps due to inability to maintain large families with meager income may not be sufficient to fulfill needs and joint families are only an added burden.

From the Table 1 it was understood that among the woman respondents, 63% belonged to Scheduled caste and Scheduled tribe (Hindu), 30% to OBC (Hindu), 5% to Forward caste (Hindu), 1% to OBC (Muslim) and 1% belonged to Forward caste (Muslim). Therefore, there were significant variations among the woman respondents of SHGs ( $\chi$ 2=121.60, df=4, p<0.0005) as well as among the woman respondents of non-SHGs ( $\chi$ 2=171.20, df=4, p<0.0005) in relation to their caste composition. Findings of present study are coincided with of Amutha (2011) and Singh & Mishra (2013). Moreover, there were no significant differences between SHG and non-SHG members in relation to their castes (t=0.0001, df=4, p>1.000, Pal, 2014).

Characteristics	Category	Respondents			
		SHG members	non-SHG members		
Age (Years)	Young (20 - 35 yrs.)	62 (62)	56 (56)		
	Middle (36 – 50 yrs.)	33 (33)	35 (35)		
	Old (above 50 yrs.)	5 (5)	9 (9)		
Family size	Nuclear family	77 (77)	55 (55)		
·	Joint family	23 (23)	45 (45)		
Castes	Forward caste (Hindu)	6 (6)	4 (4)		
	Forward caste (Muslim)	2 (2)	0 (0)		
	OBC (Hindu)	32 (32)	28 (28)		
	OBC (Muslim)	2 (2)	0 (0)		
	SC & ST (Hindu)	58 (58)	68 (68)		
Education	Illiterate	22 (22)	42 (42)		
	Functionally literate	39 (39)	37 (37)		
	Primary	24 (24)	14 (14)		
	Middle	9 (9)	5 (5)		
	High school	5 (5)	2 (2)		
	College	1 (1)	0 (0)		
Occupation	Agriculture	14 (14)	8 (8)		
	Agriculture labour	42 (42)	22 (22)		
	Agriculture and Agril. Labour	31 (31)	24 (24)		
	Agriculture and others	13 (13)	46 (46)		
	Total	100 (100)	100 (100)		

Table 1. Distribution of respondents according to their Demographic characteristics. Percentage in parenytheses.

Table 1 indicates that only 33% women respondents were illiterate, and therefore, mostly literate women sampled in this study participated in farm activities ( $\chi 2=11.56$ , df=1, p<0.001). Although, most woman participants were literate, there were significant variations among the woman respondents of SHGs ( $\chi 2=61.26$ , df=5, p<0.0005) as well as among the woman respondents of non-SHGs ( $\chi 2=101.46$ , df=5, p<0.0005) in relation to their educational levels. Moreover, there were no significant differences between SHG and non-SHG

members in relation to their educational levels (t=0.0001, df=5, p>1.000); and it was previously reported by Pal (2013).

The women respondents sampled in this study were engaged in various activities such as agriculture, agriculture labour, agriculture labour, agriculture and others (Table 1); and there were significant variations among the woman respondents of SHGs ( $\chi 2=23.60$ , df=3, p<0.0005) as well as among the woman respondents of non-SHGs ( $\chi 2=29.60$ , df=3, p<0.0005) in relation to their occupation. Moreover, there were no significant differences between SHG and non-SHG members in relation to their occupation (t=0.0001, df=3, p>1.000).

## 2.2 Women's work participation in others' farm.

Women's work participation in others' farm studied for all the seasons viz *kharif, rabi* and *summer*. Participation of female labour in cultivation was noticed in every agricultural operation except in ploughing; and it was previously reported by Chayal et al. (2010), Pal (2013).

## 2.2.1 Work participation (days) of women in others' farm during kharif season.

Table 2 shows that the sampled SHG women participated as labours for 93.0 days during the *kharif season* of which 26.1 days were devoted in harvesting and then 20.8 days in transplanting. On the other hand the sampled non-SHG women participated as labours in others' farm for 42.8 days of which 12.6 days were devoted in transplanting and 10.6 days were devoted in harvesting. Therefore, there were significant differences between the women of SHGs and non-SHGs in relation to their work participation in others' farm during the *kharif season* (t=4.479, df=5, P<0.0065).

Furthermore, the SHG women earned a total amount of Rs. 686940 and a total of Rs. 158200 through participation in different farm activities during *kharif season* (Table 2). Therefore, economic empowerment of the women was increased with the participation in Self Help Groups (t=2.899, df=5, P< 0.0388).

Table 2. Work participation (days) in others' farm and total income of rural women during kharif seas	on.
(Percentage in parentheses).	

Income	khariff								
generating	SHG women				non-SHG	non-SHG women			
activities									
	No. of	No. of	Wage	Total	No. of	No. of	Wage	Total	
	women	days	rate	income	women	days	rate	income	
			(Rs.)	(Rs.)			(Rs.)	(Rs.)	
Land preparation	14	11.3	200	31640	8	5.2	200	8320	
Fertilizer	12	5.1	200	12240	5	3.2	200	3200	
application	12	3.1	200	12240	3	3.2	200	3200	
Transplanting	52	20.8	200	216320	25	12.6	200	63000	
Harvesting	48	26.1	200	250560	27	10.2	200	55080	
Grading	22	12.2	200	53680	5	3.1	200	3100	
Threshing	35	17.5	200	122500	15	8.5	200	25500	
Total		93.0		686940		42.8		158200	

## 2.2.2 Work participation (days) of women in others' farm during rabi season.

**Table 3** shows that the sampled SHG women participated as labours for 39.2 days during the *rabi season* of which 9.6 days were devoted in transplanting and 8.6 days were devoted in harvesting. On the other hand the sampled non-SHG women participated as labours in others' farm for 21.9 days of which 5.6 days were devoted in transplanting and 5.2 days were devoted in harvesting; and there were significant differences between the women of SHGs and non-SHGs in relation to their work participation in others' farm during the *rabi season* (t=9.045, df=5, P< 0.0003).

Furthermore, the SHG women earned a total amount of Rs. 119760 and a total of Rs. 35032.50 through participation in different farm activities during *rabi season* (Table 3). Therefore, economic empowerment of the women was increased with the participation in Self Help groups (t=3.144, df=5, P< 0.0255).

Table- 3 Work participation (days) in others'	farm and total income of	f rural women during <i>rabi season</i> .
(Percentage in parentheses).		

Income generating	e generating Rabi season							
activities	SHG women				non-SHG women			
	No. of	No. of	Wage	Total income	No. of	No. of	Wage	Total
	women	days	rate	(Rs.)	women	days	rate	income
			(Rs.)				(Rs.)	(Rs.)
Land preparation	7	6.2	150	6510	4	3.2	150	1920.00
Fertilizer application	9	3.8	150	5130	3	2	150	900.00
Transplanting	30	9.6	150	43200	15	5.6	150	12600.00
Harvesting	25	8.6	150	32250	16	5.2	150	12480.00
Grading	12	3.2	150	5760	3	0.85	150	382.50
Threshing	23	7.8	150	26910	9	5	150	6750.00
Total		39.2		119760.00		21.9		35032.50

## 2.2.3 Work participation (days) of women in others' farm during summer season.

**Table 4** shows that the sampled SHG women participated as labours for 52.9 days during the *summer season* of which 14.5 days were devoted in transplanting and 12.5 days were devoted in harvesting. On the other hand the sampled non-SHG women participated as labours in others' farm for 28.5 days of which 7.5 days were devoted in transplanting and 6.8 days were devoted in harvesting; and there were significant differences between the women of SHGs and non-SHGs in relation to their work participation in others' farm during the *summer season* (t=4.974, df=5, P<0.0042).

Furthermore, the SHG women earned a total amount of Rs. 254745 and a total of Rs. 63954 through participation in different farm activities during summer season (Table 4). Therefore, economic empowerment of the women was increased with the participation in Self Help groups (t=2.679, df=5, P< 0.0439).

Table- 4 Work participation (days) in others' farm and total income of rural wom	en during summer
season. (Percentage in parentheses).	

Income generating	Summer							
activities	SHG women			non-SHG women				
	No. of	No. of	Wage rate	Total	No. of	No. of	Wage	Total
	women	days	(Rs.)	income	women	days	rate	income
				(Rs.)			(Rs.)	(Rs.)
Land preparation	11	8.2	170	15334	6	4.1	170	4182
Fertilizer	11	4.2	170	7854	4	2.3	170	1564
application	11	4.2	170	/034	4	2.5	170	1304
Transplanting	42	14.5	170	103530	18	7.5	170	22950
Harvesting	32	12.5	170	68000	20	6.8	170	23120
Grading	17	3.2	170	9248	4	1.1	170	748
Threshing	29	10.3	170	50779	10	6.7	170	11390
Total		52.9		254745		28.5		63954

## 2.3 Seasonal variations in employment in others' farm work.

In this study, the sampled women participated as labours in others' farms for  $92.8 \pm 22.3$  (mean  $\pm$  S.E.) days /crop season (**Fig 1**), and there were significant seasonal variations among the crop seasons in relation to women's participation as lobours ( $\chi^2 = 32.2$ , df = 2, P < 0.005). This study indicates that among the rural women in West Bengal, there was a seasonality of wage-employment in others' farm. It was also previously reported by Budihal (2007), Kumar & Pandey (2012), Pal (2013). Nisha (2008) in her study conducted on "Woman labour in agriculture- An economic analysis" also observed that the woman labours got maximum employment in agriculture during kharif season.



Crop seasons



According to APMAS (2006), the economic benefits of SHGs as stated by their members are increased access to credit and financial institutions, habit of savings, increased income, employment generation and improved food consumption. Shylendra (2006) noted that SHGs help members to experience improvement in their living standards. In this study, a total amount of Rs. 1318632 was earned by 200 rural women, of which Rs. 1061445 was earned by the SHG women and the rest by the non-SHG women. Therefore, there were significant

differences between the women of SHGs and non-SHGs in relation of total earning ( $\chi^2 = 4904.73$ , df = 1, P < 0.005). From this study it may be



Fig. 2. Yearly income from three crop seasons

suggested that SHGs have critical impacts on the livelihood outcomes of members, especially women in rural areas of developing countries like India. Moreover, it may be suggested that the SHG movement is in the right direction towards eradicating the poverty of the people. It was also previously reported by Kotishwar & Khan (2010), Ramanamma & Reddy (2013) and Saho (2013). The wage rate of agricultural labours varies in different villages, districts, states and countries. Wage differences between males and females are commonly seen in agriculture and in the rural sector (Chattopadhyay, 1982; Pai, 1987; Swarna, 2005; World Bank, 2009; FAO, 2010; Srivastava & Srivastava, 2010; FAO, 2011; Lal & Khurana, 2011). Contrarily, in the study of Katwa Block-I, there were no wage difference between man and woman labours (Pal 2013) and also between the women labours of SHGs and non-SHGs for the same type of work; and it indicates the socio-economic development of poor women in West Bengal.

## Conclusion

The nature and extent of women's involvement in agriculture, no doubt, varies with their age, family type, castes, religion, education and also socio-economic status. In agriculture women are engaged in various agricultural activities; however, no woman participated in ploughing.

Women's participation in rural labour markets show much heterogeneity at the regional level, but women are over represented in unpaid, seasonal and part-time work, and the available evidence suggests that women are often paid less than men, for the same work. However, in this study, there were no wage differences between woman labours of SHGs and non-SHGs for the same type of work; and it indicates the socio-economic development of poor women in West Bengal.

From this study it may be presumed that most women especially marginal farm women tend to seek wage-employment outside their own farm may be because small farm size do not offer adequate employment throughout the year. This study indicates that kharif is the main and busiest season in West Bengal in relation to agricultural production and woman labours get maximum employment in agriculture during kharif season.

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