Women's Time Utilization in Agricultural Works : — The Case of Rural Bangladesh —

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1. Introduction:

With the advancement of social science research in Bangladesh during the past two and half decades, the concept of 'women empowerment' has gained currency.

At the International Conference on Population and Development in Cairo 1994, many delegates strongly advocated empowering women through education, paid job, credit, property rights, contraception and political power (Cohen, 1994). The Beijing Declaration in 2000 also reflected the empowerment of women (Mahtab, 2000).

It is seen as a powerful means of social development that encompasses cultural, economic and political development of a pre-modern society (Rahman; 2000).

However, Govt. attention on women in agriculture is still being bypassed surprisingly when as much as 77.4% (BBS; 1999) females are employed in our agriculture and their contribution is under estimated in the census reports (Qadir; 1985).

This may be due to the fact that in the male dominated society of Bangladesh the women in both rural and urban areas more severely in rural area occupy a status that is generally inferior to that of men (Begum *et al*; 1995). Moreover, a girl in Bangladesh, from birth onward, is treated as inferior to a boy (Jahan, 1975).

The gender division of labor in the agriculture of Bangladesh originates from the traditional female-male dichotomy. Many studies such as (Sattar 1974; Alamgir 1977) recognized the importance of women's roles in household economy and sustenance.

They suggested that the existing problems result from both conceptual and methodological inadequacies. Building on these studies, the main purpose of this paper is to examine the women's laboring time in agricultural works from the view point of women's empowerment situation in rural Bangladesh.

The paper firstly examines the time spent by the different classes of rural women, secondly

women's laboring time compare with men's in the rural agricultural works and finally draws conclusions from the two points suggesting actions that could alleviate some of the problems faced by female peasants.

The discussion is mainly supported from data taken from published materials such as Zaman's work with some modifications by the present researchers.

2. Discussion:

2.1) This section deals with the amount of time spent in agricultural activities by men and women. Here agriculture refers to four broad categories of activity, namely (i) post harvest tasks; (ii) animal tending; (iii) field agriculture; and (iv) wage labor. Field and post harvest agricultural activities include all aspects of agricultural operations - both paid and unpaid. Animal tending (including chickens and ducks) involves work like cleaning, grazing animals, feeding and care taking at home. Wage labor refers to paid work- both cash and customary payment in kind (Zaman; 1996).

Table 1-A and 1-B present a comparative view of all categories of work under agriculture by women of all classes.

First, women from all peasant classes allocate more time to post harvest tasks (Table 1-A) and contribution of time usage is significantly varied in different classes of women with a minor exception (Table 1-B). In most cases, these women work as unpaid family labors. Halim *et al* (1983) indicated that 55% of the rural women of Bangladesh spend about 50% (5-6hrs/day) of their time in rice processing activities. A survey conducted at Gazipur Sadar Thana (Ahmed *et al* ; 1992) also shows that 100% of manual threshing and winnowing, 95% sun drying, 50% steaming and 100% traditional parboiling, 100% traditional milling, 40% milling in rice mills and 100% separation rice, bran and broken rice are done by women.

Table 1-A: Amount of Time (Hours per day) Spent by Women in Agricultural Activities by Class and Season

Activity	Season	Peasant Classes			
		Rich	Middle	Small	Landless
Post-harvest tasks	Busy	3.7	4.8	3.1	1.8
	Intermediate	1.5	1.9	1.5	0.8
	Slack	0.5	2.1	1.0	0.4
Animal tending	Busy	0.9	0.7	0.9	0.5
	Intermediate	0.7	1.6	1.1	0.8
	Slack	0.9	0.9	1.1	0.9
Field agriculture	Busy	0.0	0.0	0.1	0.2
	Intermediate	0.0	0.0	0.7	0.2
	Slack	0.0	0.0	0.1	0.0
Wage labor	Busy	0.0	0.0	0.0	0.6
	Intermediate	0.0	0.0	0.0	0.5
	Slack	0.0	0.0	0.0	0.2

Source: Habiba Zaman, 1996,p.99; *In Women and Work in a Bangladesh Village*.
Winrock International Institute for Agricultural Development, Canada. Narigrantha
Prabartana,Dhaka.

Table 1-B : Significance Level of Time Use variation by Female Peasant Classes

	Peasant Classes											
	R	M	R	S	R	L	M	S	M	L	S	L
Post-harvest tasks ave.hr/day	1.9	2.9	1.9	1.8	1.9	1.0	2.9	1.8	2.9	1.0	1.8	1.0
	(-3.56)*		(0.12)ns		(2.08)**		(3.49)*		(4.23)*		(5.02)*	
Animal tending ave.hr/day	2.5	1.0	2.5	1.0	2.5	0.73	1.0	1.0	1.0	0.73	1.0	0.73
	(-0.83)ns		(-2.16)**		(0.79)ns		(0.16)ns		(1.68)ns		(5.19)*	
Field agriculture ave.hr/day	0.0	0.0	0.0	0.3	0.0	0.13	0.0	0.3	0.0	0.13	0.3	0.13
	(0)ns		(-1.86)ns		(-2.25)**		(-1.86)ns		(-2.25)**		(1.23)ns	
Wage labor ave.hr/day	0.0	0.0	0.0	0.0	0.0	0.43	0.0	0.0	0.0	0.43	0.0	0.43
	(0)ns		(0)ns		(-3.72)*		(0)ns		(-3.72)*		(-3.72)*	

Figures in the parentheses are t-values; R,M,S & L-rich,middle,small & landless female classes respectively;
& ** indicates differences are significant at 5% & 10% level respectively; ns-not significant;
Original source: Table 1-A (modified);

Second, women from all peasant classes appear to be active in animal tending (Table 1-A). However, this is varied in different female classes either significantly or insignificantly (Table 1-B). Usually rich and middle peasant households have permanent contract labor for animal herds. It is perhaps that both peasant classes are economically self sufficient and can live a moderate and secure life with efficient farm management. The small and landless peasants belong to the poverty stricken life and they rarely own any animals except goats, ducks and chickens. Moreover, these are good sources of income and poor women can use this additional income to buy groceries or cloths for the family.

Third, Women from small and landless households are involved in field agriculture and field agriculture and wage labor respectively (Table 1-A). It is because field agriculture and wage labor are related to honor of the household. Thus, those who work in field agriculture and earn a wage to live are viewed as low status women in the Bangladeshi village. This is more acute in case of landless peasants as it appears (Table 1-B) their time devotion to this kind of tasks significantly different than all other female classes. It is perhaps that they suffer from a high degree of economic insecurity.

2.2) This section deals with the male - female time use in the agricultural work.

It appears from Table 2-A that men from the rich peasant households invest little of their time in agriculture (ave. 1.6 hrs/day) significantly much lower than women (ave. 2.8 hrs/day).

This is perhaps because rich male peasants hire laborers to do work for them thus spending time mostly in a supervisory role.

It is further evident that middle peasants allocate significantly more time (ave. 7.1 hrs/day) in agriculture than all male peasant classes with some minor exception (Table 2-B); this is also the case for women of the middle peasant households (ave. 4.0 hrs/day) as it appears from the Table 2-C.

It appeared that the middle peasant households utilize more family labor than rich peasants who mostly rely on hired labor. Small and landless women spend less time in agriculture compared to women from all the other peasant classes either significant or insignificantly (Table 2-C).

It may be the fact that these peasant classes depend heavily on selling their labor and occasionally remain unemployed or underemployed. They are recruited only when the labor supply is exhausted.

In all three seasons, men from all four classes work significantly more hours (ave. 5.1 hrs/day) than women (ave. 3.1 hrs/day) as it is observed from the Table 2-A. This may be the traditional male-female dichotomy in labor use in agriculture.

3. Conclusion and Recommendation:

This paper cleared the significant and insignificantly differences of time use among the different classes of rural women and between the male -female classes. It may be the fact of our unplanned rural social system. It is also assumed that there is a male - female dichotomy in labor use in agriculture. We can not demand that our study is the best one. Further investigation should take note of this.

Finally based on the analysis, the following modifications are made toward women's empowerment and its sustainability in the country's agriculture :

1) It is noted that the status of women in Bangladesh needs improvement both culturally and economically. In agriculture, to ensure sustainability of women's empowerment - female peasants must go for education and special measures should be taken for small and landless female peasants.

To this purpose, existing rural female associations, NGOs etc. should accelerate their works and more similar institutions should be set up in the rural areas. Thus female peasants can improve their empowerment which may raise their socio-economic status.

2) To remove the male-female dichotomy in the Bangladesh agriculture - science and technology for women should be developed like in other countries such as Japan and Austria. This can be done by introducing women vocational and professional training centers in the rural areas.

Table 2-A: Amount of Time (Hours per day) Spent on Agriculture by Class, Season and Gender

Season	Peasant Classes									
	Rich		Middle		Small		Landless		Ave. hr/day	
	F	M	F	M	F	M	F	M	F	M
Busy	4.7	2.3	5.6	9.1	4.0	7.3	3.2	7.2	4.4	6.5
Intermediate	2.2	1.3	3.5	4.7	3.3	5.5	2.4	5.4	2.9	4.2
Slack	1.5	1.1	3.0	7.6	2.3	5.0	1.5	5.3	2.1	4.7
Ave.hr/day	2.8	1.6	4.0	7.1	3.2	5.9	2.4	6.0	3.1	5.1
	(2.51)***		(-3.78)**		(-10.50)*		(-14.15)*		(-6.65)**	

*, ** & *** indicates differences are significant at 1%, 5% and 10% level respectively;
 Figures in the parentheses are t-values; F - female; M- male ;
 Original source: Same as Table 1-A; p.100. (modified)

Table 2-B: Significance Level of Time Use Variation by Male Peasant Classes

	Male Peasant Classes											
	R	M	R	S	R	L	M	S	M	L	S	L
ave. hr/day	1.6	7.1	1.6	5.9	1.6	6.0	7.1	5.9	7.1	6.0	5.9	6.0
	(-6.30)**		(-15.43)*		(-4.61)**		(1.43)ns		(1.52)ns		(0.26)ns	

Figures in the parentheses are t-values;
 * & ** indicates differences are significant at 1% & 5% level respectively;
 ns - not significant; R, M, S & L- rich, middle, small & landless male peasant classes respectively;
 Source: Table 2-A; (modified).

Table 2-C: Significance Level of Time Use Variation by Female Peasant Classes

	Female Peasant Classes											
	R	M	R	S	R	L	M	S	M	L	S	L
ave. hrs/day	2.8	4.0	2.8	3.2	2.8	2.4	4.0	3.2	4.0	2.4	3.2	2.4
	(-8.18)*		(-0.85)ns		(0.98)ns		(2.48)**		(5.45)*		(1.20)ns	

* & ** indicates differences are significant at 5% & 10% level respectively;
 Figures in the parentheses are t-values;
 ns - not significant; R,M,S & L - rich, middle, small and landless female classes respectively;
 Source: Table 2-A; (modified)

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