

Gender Perspectives for Sustaining Sugarcane based Farming System

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ABSTRACT

Economic development of any society depends on the quality of human resources. Women referred as 'invisible farmers' are the backbone of agricultural work force in our country. Be it in crop farming, animal husbandry, fisheries, forestry or any allied agricultural activities, women do the most tedious and strenuous tasks. In production agriculture, women are active partners associating in almost all unit operations of agriculture sharing work between 20-80% in certain cases and almost 100% especially in those involving arduous repetitive work. Gender issues assume great importance in Indian agricultural scenario due to the large diversity in the status of women which is influenced mostly by social and religious taboos, economic status and farm production systems. Rural women hold the key to many of the agricultural systems for food production, seed selection and sustained farming. Sugarcane is an annual crop wherein more than 45 million people are engaged in various activities. We know that women play a major role in sugarcane farming but we do not know enough about what this means for technology development, adoption and further impact on productivity. Women's labour terrain is not confirmed to the farm alone. Apart from the nature of work, the measuring of time expended has rarely been addressed. Hence, issues relating to both research coverage and impact in terms of gender need careful study. Accordingly, a study was conducted in three districts of TamilNadu covering 94 farm women. The present paper highlights the gender perspectives in sugarcane farming in terms of their participation level, their decision making pattern in varied activities, time utilization pattern, drudgeries involved and thereby implications suggesting sustainable interventions, addressing both the practical and strategic issues.

Key words: *Gender issues; Sugarcane; Farm women; Participation level; Drudgery;*

Women referred as 'invisible farmers' are the backbone of agricultural work force. Be it in crop farming, animal husbandry, fisheries, forestry or any allied activities, women do the most tedious and strenuous tasks. In production agriculture, women are active partners associating in almost all unit operations of agriculture sharing work between 20-80% in certain cases and almost 100% especially in those involving arduous repetitive work.

Gender issues assume great importance in Indian agricultural scenario keeping in view that large diversity exists in the status of women which is influenced mostly by social and religious taboos, economic status and farm production systems. Gender analysis is an approach and method which enables to analyze the differences that exist within gender categories with respect to activities, access and control of resources and benefits.

Sugarcane is an annual crop wherein more than 45 million people are engaged in various activities. We know that women play a major role in sugarcane farming but we do not know enough about what this means for technology development, adoption and further impact on productivity. Women's labour terrain is not confirmed to the farm alone. Apart from the nature of work, the measuring of time expended has rarely been addressed. Hence, issues relating to both research coverage and impact in terms of gender need careful study.

METHODOLOGY

The study was carried out in the districts of Coimbatore and Chidambaram in Tamil Nadu State and Puducherry. Ninety four farm women selected at random from two villages each were contacted for collecting information.

An interview schedule was developed for this purpose and pilot tested with non-sample farmers. Detailed survey was undertaken by personal interview using the pre-tested interview schedule. The responses were tabulated and the data were analyzed using simple percentage analysis.

RESULTS AND DISCUSSION

The present study focused on the Extent of participation of men and women in different sugarcane farming operations, Time utilization pattern of farm women, Decision making pattern of farm women and

Table 1. Extent of participation of men and women in different sugarcane farming operations (N=94)

S. No.	Activities	Coimbatore		Puducherry		Chidambaram	
		Men	Women	Men	Women	Men	Women
1.	<i>Land preparation</i>						
	Ploughing	100	-	100	-	100	-
	FYM application	13.33	86.67	8.82	91.18	16.67	83.33
	Forming ridges & furrows	100	-	100	-	100	-
2.	<i>Planting</i>						
	Sett cutting	60	40	17.65	82.35	83.33	16.67
	Sett treatment	20	80	-	-	6.67	93.33
	Sett transport	-	100	14.71	85.29	-	100
	Spreading setts	-	100	-	100	-	100
	Sett planting & covering	-	100	-	100	-	100
3.	<i>Weed management</i>						
	Spraying weedicide	100	-	100	-	100	-
	Hand weeding	-	100	-	100	-	100
4.	<i>Fertilizer application</i>						
	Applying Super PO4	66.67	33.33	44.12	55.86	40	60
	N&K top dressing	46.67	53.33	38.24	61.76	43.33	56.67
5.	<i>Irrigation</i>						
	Guiding irrigation water	93.33	6.67	41.18	58.82	86.67	13.33
	Cleaning channels	100	-	100	-	100	-
6.	<i>Earthing up</i>	100	-	100	-	100	-
7.	<i>Detrashing</i>	-	100	-	100	-	100
8.	<i>Plant protection</i>						
	Supply of water	6.67	93.33	-	100	10	90
	Mixing chemicals	86.67	13.33	85.29	14.71	80	20
	Spraying chemicals	100	-	100	-	100	-
	Roguing affected clumps	93.33	6.67	82.35	17.65	90	10
9.	<i>Harvesting</i>						
	Cutting the cane	86.67	13.33	55.88	44.12	80	20
	Detopping the cane	6.67	93.33	5.88	94.12	26.67	73.33
	Cleaning the cane	6.67	93.33	5.88	94.12	26.67	73.33
	Bundling	10	90	11.76	88.24	13.33	86.67
	Transporting the cane	60	40	38.24	61.76	66.67	33.33
10.	<i>Ratoon management</i>						
	Collection of trash	13.33	86.67	8.82	91.18	13.33	86.67
	Trash disposal	26.67	73.33	20.59	79.41	16.67	83.33
	Off barring	100	-	-	-	100	-

Drudgeries faced by farm women engaged in sugarcane farming. The details are discussed below:

Extent of participation of men and women in different sugarcane farming operations: Table 1 indicates that in the study area, sugarcane farming is being done both by men and women, their participation levels differing in various activities. Sugarcane farming operations like ploughing, spraying weedicide, cleaning irrigation channels, earthing up, spraying plant protection chemicals and off barring are being done exclusively by men. These activities are laborious and cumbersome and hence being done by men. Activities like spreading setts in the field, sett planting and covering, hand weeding and detrashing are done exclusively by farm women. These activities are also laborious but do not demand physical energy as required by the activities done by men. In all the other activities, there exists wide variation between the study districts.

i. Farm women in Coimbatore district: Coimbatore is one of the progressive districts in Tamil Nadu state with high literacy level. Activities like sett cutting, top dressing of N & K fertilizers and transporting of harvested cane are performed both by men and women. Activities like farm yard manure (FYM) application, sett treatment, supply of water for mixing plant protection chemicals, detopping the harvested cane, cleaning the cane, bundling of cane, collection of trash and trash disposal are women dominated activities with less than 20 per cent of men doing such activities. However, activities like guiding irrigation water, mixing plant protection chemicals for spraying and harvesting the cane are male dominated activities with meager participation by women.

ii. Farm women in Chidambaram district: In Chidambaram district, fertilizer application comprising basal application of super phosphate and top dressing of N & K fertilizers are performed both by men and women in almost equal proportions. Activities like FYM application, sett cutting, sett treatment, supply of water, detopping the harvested cane, cleaning the cane, bundling, collection of trash and disposal of collected trash are women dominated as seen in the rest of the study area.

iii. Farm women in Puducherry : The participation pattern and level of participation varies a little from the other study area. Women and men participate equally in activities like application of super phosphate as basal, guiding irrigation water and harvesting cane. Women here are found to participate in strenuous activities as well. The other operations in which women participate

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to a greater extent are FYM application, sett cutting for planting, sett transport, N & K top dressing, detopping the harvested cane, cleaning the cane, bundling, transporting the cane, collection of trash and disposal of collected trash.

Most of the activities being performed by women can very well be performed by men as well; But the deciding factor here is the difference in wages paid. On an average, the men labourer is paid Rs.150-200/- per day whereas for women labourers it is Rs.60-80/- per day for the same work duration. This wide wage disparity does not compensate for the energy demand.

However, the practices like application of biofertilizer, propping, stubble shaving and polybag seedlings for ratoon management are not in vogue in the study sample.

Time utilization pattern of farm women : The time utilization pattern of farm women is given in Table 2.

Table 2. Average time spent on various chores by farm women

S.No.	Activity	Average time spent (hours)
1.	Farm work	7.30
2.	Cattle rearing	2.00
3.	Water fetching	1.00
4.	Cooking	2.30
5.	Household work	2.00
6.	Child care	2.00
7.	Personal	0.30
8.	Rest	6.30

It reveals that on an average, a farm woman spends 7.30 hours doing work in the farm in the case of paid labour with 45 minutes to one hour break in between. Most of the farm families own farm animals like cow, goat, poultry birds etc. and in nearly 75 per cent of the samples interviewed rearing of such animals is the responsibility of women. They spend 1.30-2.00 hours on an average caring for the animals. Regarding water fetching, the farm women reported that they spend hardly an hour for drawing water from the open wells or nearby community taps. With the availability of water facility in almost all the villages, they feel that the time spent in fetching water has been reduced considerably in recent times. Most of the women interviewed were of middle age and have crossed the child bearing age; thereby the time spent on child care is 2 hours or even less. However, women spend a considerable time of nearly 4.30 hours at home doing cooking and other household

work. But for the gas stove, the other amenities available in the urban households are yet to penetrate into the rural areas. The time they spent for themselves is hardly 30 minutes a day which is far less than their counterparts in the urban setting.

Decision making pattern of farm women : Table 3 reveals that among the sugarcane farming operations, in activities like type of labour to be engaged, fixing rate for jaggery and deciding the market for selling jaggery, the decision is taken either by men themselves or jointly in consultation with their wives or sometimes elders. For all the other activities like crops to be grown, area allotment for the selected crops, selection of variety, area allotment for the different varieties, place of procuring setts, time of planting, fertilizer procuring, plant protection measures, time of harvesting and hiring of labourers, the decisions are taken mostly by men.

Table 3. Decision making pattern of sugarcane farming operations (N=94)

S. No.	Item	Men	Women	Jointly
1.	Crops to be grown	67.02	9.57	18.09
2.	Area allotment for the selected crops	75.53	8.51	15.96
3.	.Selection of variety	85.11	2.13	12.76
4.	Area allotment for different varieties	82.98	3.19	13.83
5.	Place of procuring setts	89.36	4.26	6.38
6.	Time of planting	62.76	5.32	30.85
7.	FYM application (Quantity, place)	86.17	2.13	11.70
8.	Fertilizer procurement	88.30	4.26	7.45
9.	Plant protection	70.21	7.45	22.34
10.	Time of harvesting	60.64	6.38	32.98
11.	Labour management			
	Type of labour to be engaged	53.19	5.32	41.49
	Hiring of labourers	73.40	7.45	19.15
12.	Marketing			
	Selling jaggery/ Supply to factory	59.57	6.38	34.05
	Fixing rate	54.26	4.26	41.49
	Deciding the market	54.26	5.32	40.43
14.	Money management			
	Keeping & spending	34.04	37.23	28.73
	Capital transactions (buying & selling)	55.32	10.64	34.04
	Disposal of home/farm/ other products	34.04	13.83	52.13
	Borrowing of loans	76.60	6.38	17.02
	Savings	43.62	13.83	42.55
	Maintaining accounts	78.72	9.57	11.71

However, the scenario is different when it comes to money management. Women have a better say in keeping and spending money, capital transactions, disposal of home/farm/other products and savings. Nevertheless, men dominate in terms of borrowing of loans and maintaining accounts, as this can be attributed to their high social interaction and thereby better exposure.

On the whole, it could be seen that women are not considered in the forefront when it comes to decision making. In some cases, women deliberately do not take part in decision making because men put the blame on them if something goes wrong. But for money management, their participation in decision making is as such limited.

Drudgeries faced by women engaged in sugarcane farming : With many non-agricultural avenues like brick kilns, tailoring institutes, spinning mills, food processing units and the like available in the villages, women belonging to young and middle age group prefer getting employed in such activities as they get more wages and better working environments. This reality drives agriculture with no choice except having women of middle age and above to perform the different operations in the field. In sugarcane farming, detrashing and hand weeding are reported to be very tedious operations. Some varieties are not self-detrashing making manual labour more difficult. The situation gets worsened in fields affected with sucking pests like woolly aphid, pyrilla etc. as it leads to skin irritation.

Hand weeding is another tedious operation as it leads to back pain due to continuous bending posture. Moreover since women aged more than 45 years are engaged in such activities, they feel all the more pressure on them.

However, the farm women are against mechanization as it would replace human labour thereby rendering the farm women jobless.

Implications of the study: The study indicated that the farm women are engaged in activities like sett planting, weeding, detrashing and to a lesser extent in fertilizer application. In most of the areas detrashing is done just once during 5th month though it is recommended to be done during 7th month as well. This gives the farm women a lean period of about six months till harvest. This lean season can be productively utilized by providing them with job opportunities in other non agricultural activities. Based on the locally available resources and

considering the local demands, agro-processing units can be started to keep women fully employed. Also, there exists a wide wage disparity, which has to be abridged considering the energy demands and time consumed for each activity. Such developmental activities have to be designed locally and implemented through the concerned development departments in that area.

CONCLUSION

Agriculture is a major component of rural income, especially in developing nations. In a country like India, both men and women are equal partners in farming operations. More so in a labour intensive long duration

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crop like sugarcane. Gender determines who has access to the local resources and what kind of access they have. Although women work in the fields, the homes, outside of the farm, and at the markets, their male counterparts often dictate decisions over the household and its economy (Wichterich, 2000; Anonymous, 2004). In the present work very succinct information has been gathered about the role of women in sugarcane farming; this can form a base for building strategies for betterment of women workers. Technology training and input support to the right women farmers can create a positive impact on agro business leading to a better tomorrow.

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