Empowerment of Women in Rice Farming System

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ABSTRACT

The women is the backbone of agricultural workforce but worldwide her hard work has mostly been unpaid. She does the most tedious and back-breaking tasks in agriculture, animal husbandry and homes. Their significant contribution as labour input has generally remained unaccounted. They are far behind and need to be adequately empowered to take up future challenges. The nature and extent of women involvement in agriculture varies greatly from region to region, ecological sub-zones, caste, class and stages in the family cycle. Empowering farm women for better quality of life is an important and burning issue today. Quality of life includes food and nutrition, health, social, educational, outings/holidays and standard of living. Women described success in terms of children, satisfaction in work, reputation, ability to choose daily activity, their contribution to the community and their overall perceived quality of life. This paper aims to know the social, technological and economic empowerment levels of women involved in rice farming system. A total sample of 120 women were purposively selected from three districts of Karnataka state viz., Dharwad, Uttar Kannada and Haveri. Data was collected with the help of interview schedule. The collected data was analyzed using correlation, frequencies and percentages. The study revealed that the majority of women (95.80 %) have less empowered socially. However they had medium level of empowerment in technological and economic conditions (45.80 % and 76.70 % respectively). Social empowerment is low compared to economic and technological empowerment because women are involved both in farm & home activities hence they do not get much time for social activities

Keywords: *Empowerment; Farm women; Agriculture; Involvement;*

Empowerment is defined as the processes by which women take control and ownership of their lives through expansion of their choices. Thus, it is the process of acquiring the ability to make strategic life choices in the context where this ability has previously been defined. The core elements of empowerment have been defined as agency (the ability to define one's goals and act upon them), awareness of gendered power structures, self – esteem and self – confidence (*Kabeer, 2001*). Empowerment can take place at a hierarchy of different levels – individual, household, community and societal and is facilitated by providing encouraging factors (e.g., exposure to new activities, which can build capacities) and removing inhibiting factors (e.g., lack of resources and skills).

When women are economically empowered and stand on their own, it will automatically be reflected in the quality of life of her family. Quality of life has been defined by WHO, as individuals perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. Quality of life may include food and nutrition, health, social, educational, outings/holidays and standard of living. Women described success in terms of children, satisfaction in work, reputation, ability to choose daily activity, their contribution to the community and their overall perceived quality of life (*Dissanayake et al., 2014*).

Food and Agriculture Organization (2013) estimate shows that women represented a substantial share of the total agricultural labour force either, as individual food producers or as agricultural workers and two thirds of the female labour force in developing economies is engaged in agricultural work. In India the

importance of women in Agriculture has been increasing over the years as men are migrating to rural non farm sector and industrialized urban areas. This is a disturbing trend as women are burdened with reproductive as well as productive works. They have now taken over responsibilities in areas which some years ago were male dominated and are literally donning trousers to carry out those activities (*Rahman, 2015*).

India agriculture is said to be dominated by marginal and small land holding farmers. The average size of the land holdings in India has also declined which is about 1.33 ha (2000-01). Rice is one of the chief crops of India and being the principal food crop has the highest area under cultivation (*Begum,1985*). Studies have shown that the role of women in rice farming vary considerably from region to region influenced by varying factors like technology, social and economic factors. Keeping the above facts in mind the present study was carried out with the following objectives;

i. To study the cropping pattern of the respondents
ii. To analyze socio-personal characteristics of the respondents
iii. To study the social, technological and economic empowerment of women in rice farming system
iv. To find out the relationship between empowerment and independent variables

METHODOLOGY

The study was conducted in Karnataka state during 2015-16. Three districts of Karnataka state viz., Dharwad, Uttar Kannada and Haveri were selected for the study. From, each district 40 farm women were purposively selected who were involved in rice farming. Thus the total sample consisted of 120 farm women. A pre tested schedule was used to collect data through personal interviews. The statistical tools like frequency, mean and correlation were calculated to analyze the data.

RESULTS AND DISCUSSION

Table 1 depicts the socio-personal characteristics of respondents. Majority of the women (66.70 %) belonged to middle age group (36-50 years) followed by young (18.30%) and old (15.00%). In case of education about 49 per cent of women were illiterate, 25 per cent of them can read and write, 19.20 per cent of were educated up to primary school. The other 5.00 and 1.70 per cent of them were educated up to high

Table 1. Socio-personal characteristics of respondents

Variables	Categories	No.	%
Age	Young	22	18.30
	Middle	80	66.70
	Old	18	15.00
Education	Illiterate	59	49.20
	Can read and write	30	25.00
	Primary school	23	19.20
	Middle school	02	1.70
	High school	06	5.00
Caste	SC/ST	7	5.80
	Backward	8	6.70
	OBC	74	61.70
	Upper caste	31	25.80
Marital status	Married	112	93.30
	Unmarried	01	0.80
	Widow	07	5.80
	Divorce	-	-
Family type	Nuclear	58	48.30
	Joint	62	51.70
Size of the family	Small (1-4)	24	20.00
	Medium (5-8)	73	60.80
	Large (>8)	23	19.20
family occupation	Farming	120	100.0
	Service	-	-
	Business	-	-
	Daily wage earner	95	79.20
Land holding	Small (1-4)	95	79.20
	Medium (5-10)	19	15.80
	Big (>10)	06	5.00
Type of land	Dry	64	53.30
	Irrigated	41	34.20
	Both	15	12.50
Land holding under rice cultivation	Small (1-4)	119	99.20
	Medium (5-10)	01	0.80
	Big (>10)	-	-
Labour details	Family members	31	25.80
	Hired	89	74.20
Scientific orientation	Low (<)	-	-
	Medium (7-13)	84	70.00
	High (>13)	36	30.00
Risk orientation	Low (<7)	-	-
	Medium (7-13)	103	85.80
	High (above 13)	17	14.20
Management orientation	Low (<18)	-	-
	Medium (19-35)	72	60.00
	High (<35)	48	40.00
Extension Participation	Low	45	37.50
	Medium	70	58.30
	High	05	04.20
Organization Participation	Low	40	33.33
	Medium	70	58.33
	High	10	08.34

school and middle school respectively. Among the respondents 61.70 per cent belonged to other backward caste, 25.80 per cent were upper caste, 6.70 per cent were backward caste and 5.80 per cent were SC/ST. In case of marital status 93.30 per cent were married and 5.80 per cent were widow. Nearly equal per cent of respondents were from joint (51.70%) and nuclear families (48.30%). Majority (60.80 %) of the respondents had medium size families while 20.00 per cent and 19.20 per cent had small and large size families respectively.

As the sample was purposively selected 100 per cent respondent's family occupation was farming. Among them 79.20 per cent were also working as daily wage earners. With reference to the land holding 79.20 per cent were having small holding, 15.80 per cent were having medium size land holding and only 5.00 per cent were possessing big land holding. Among the respondents 53.30 per cent possessed dry land, 34.20 per cent irrigated land and only 12.50 per cent had both irrigated as well as dry land. With respect to rice cultivation 99.20 per cent of the respondents were cultivating rice on less than 4 acres of land and 0.80 per cent were cultivating on medium size land holding. For cultivating rice 74.20 per cent were hiring labour and 25.80 per cent were managing with the family members.

With regard to personal characteristics of the respondents 70.00 cent, 85.80 per cent and 60.00 per cent were having medium level of scientific orientation, risk orientation and management orientation respectively. None of them were in low level category where as 30 per cent, 14.20 per cent and 40.00 per cent were having high scientific orientation, risk orientation and management orientation respectively.

In case of social characteristics of the respondents 58.30 per cent had medium level, 37.50 per cent low level and 4.20 per cent high level of extension participation. Almost similar trend was seen in organizational participation with 58.30 per cent having medium level, 33.33 per cent low level and 8.34 per cent high level.

Table 2. Farming system of respondents (N=120)

Seasons	Crops grown	No.	%
Kharif	Rice	42	35.00
Rabi	Rice+Green gram+Black gram	54	45.00
	Greengram+Bengal gram+ Soaya bean+Maize	24	20.00
Summer		-	-

The data in the Table 2 shows that, 35 per cent of them grow only one crop that is rice during Kharif season. Among the respondents who grow two crops in a year that is rice in Kharif followed by 45.00 per cent grow Rice+green gram+black gram in rabi season and 20 per cent grow green gram+Bengal gram+soyabean+maize in rabi season.

Table 3. Participation of the respondents in rice cultivation (N=120)

Participation	No.	%
Pre production		
Ploughing	-	-
Leveling the field	08	6.70
Manuring	99	82.50
Seed selection	99	82.50
Seed treatment	95	79.20
Total	301	50.16
Production		
Sowing	105	87.50
Transplanting	117	97.50
Fertilizer application	118	98.30
Inter cultivation	18	15.00
Weeding	119	99.20
Plant protection		
Crop care and nurturing	79	65.80
Disease and pest management	79	65.80
Chemical weed control	79	65.80
Water management	79	65.80
Watching birds	117	97.50
Harvesting & Post harvesting		
Harvesting	06	05
Threshing	101	84.20
Winnowing/Processing	111	92.50
Cleaning/Grading	120	100.0
Storing	117	97.50
Marketing	59	49.20
Overall Participation percentage		*68.30*

The results in the Table 3 depicts that the overall participation of women in rice cultivation was quiet good with 71.62 per cent. In case of different stages of cultivation there is variation in the per cent participation of women. With respect to pre production women do not participate in ploughing and very low percentage (6.70%) of them participate in leveling the field. As these two things involve handling heavy equipments and also now a day's these two works are out sourced, hence participation is less. Nearly 80 per cent of them were involved in manuring, seed selection and seed treatment.

With respect to production activities as high as 99.20 per cent take part in weeding, 98.30 per cent in fertilizer application, 97.50 per cent in transplanting and 87.50 per cent participate in sowing but only 15 per cent participate in inter cultivation. As mentioned in pre production stage due to the involvement of equipment for inter cultivation mainly men do this work or else it will be outsourced. In case of plant protection activities equal percentage (65.80%) of the women participate in crop care and nurturing, disease and pest management, chemical weed control and water management. But the participation was very high to the extent of 97.50 per cent in case of bird watching. As women have more emotional attachment, their participation in plant protection activities is also as high as 72.16 per cent. The table also shows that with regard to harvesting and post harvesting activities only 5 per cent take part in harvesting activities. As harvesting of paddy now a days is completely mechanized and the harvesters are obtained on rent, hence the women do not participate in harvesting activities. But the participation of women is very high in post harvesting activities with cent per cent participation in cleaning/grading, 97.50 per cent in storing, 92.50 per cent in winnowing/processing and 84.20 per cent in threshing. Since time immemorial all these activities are considered as women friendly and men hardly take part in such activities. Hence the same is continued even today. Due to the higher percentage of participation of women in all farm activities, they are even taking part in marketing activities to the extent of 49.20 per cent. When we see to the overall participation of women in rice cultivation, the percentage of participation is very low only in few activities such as ploughing, leveling the field, inter cultivation and harvesting. Whereas more than 60 per cent participate in all other activities, hence the overall percentage of participation is 68.30 per cent.

Table 4. Social, technological and economic empowerment level of respondents (N=120)

Category	Social Emp.		Techno. Emp		Econ. Emp.	
	No.	%	No.	%	No.	%
Low (<41)	48	40.00	22	18.30	28	23.30
Medium (42-58)	72	60.00	55	45.80	92	76.70
High (>58)	-	-	43	35.80	-	-
Overall Index	48.00		77.95		62.98	

Table 4 depicts the empowerment level of women involved in rice cultivation. In case of social empowerment 60 per cent were at medium level and 40 per cent were at low level and none of them had high level. Overall index of social empowerment was 48.00. Similarly in case of economic empowerment 76.70 per cent were at medium level and 23.30 per cent were at low level. But in case of technological empowerment 35.80 per cent were at high level, 45.80 per cent were at medium level and 18.30 per cent at low level. While comparing all the three types of empowerment, women had high index with 77.95 in case of technological empowerment. The reason behind this may be due to high participation of women in almost all rice cultivation activities. Only 50 per cent of them participated in marketing activities, hence the economic empowerment index was 62.98. But the empowerment index was low in case of social when compared to technological and economic. The reason behind this may be the women get hardly any time for their social activities as they are involved completely in both farm and home activities.

Table 5. Relationship between independent variables with empowerment of respondents (N=120)

Independent Variables	'r' value		
	Social Emp.	Techno. Emp	Econ. Emp.
Age	0.012^{NS}	0.075^{NS}	0.032^{NS}
Education	0.597**	0.369**	0.013^{NS}
Size of the family	0.003^{NS}	0.444**	0.007^{NS}
Family occupation	0.100^{NS}	0.136^{NS}	0.078^{NS}
Landholding	0.100^{NS}	0.290**	0.081^{NS}
Scientific orientation	0.046^{NS}	0.018^{NS}	0.155^{NS}
Risk orientation	0.035^{NS}	0.168^{NS}	0.055^{NS}
Management orientation	0.170^{NS}	0.133^{NS}	0.032^{NS}
Extension Participation	0.876**	0.333**	0.127^{NS}
Management Orientation	0.651*	0.179^{NS}	0.024^{NS}

**Correlation is significant at the 0.01 level

*Correlation is significant at the 0.05 level

NS – Non-Significant

Table 5 shows the relationship between independent variables and empowerment. There was positive and significant relationship with education as well as social and technological empowerment. As the education level increases people become more social. Similarly as education level increases women try to understand and participate in all farm activities. Hence they were technologically empowered. There is also positive and significant relationship between extension participation, organizational participation and social empowerment.

As women participate more in extension and organizational activities, their social life also improves, hence the relationship with size of the family, land holding and extension participation have positive and significant relationship with technological empowerment. As the size of the family increases, may be the household work is distributed, hence women participate more in farm activities and get technologically empowered. Higher the land holding, the adoption of technologies will be higher, hence technological empowerment is more. In case of extension participation, as women participate more in such activities, their awareness and knowledge towards innovative technologies increases, hence the finding. There is no significant relationship found between economic empowerment and any of the independent variables.

Table 6. Health problems faced in rice cultivation (N=120)

Problems	No.	%
Head ache	13	10.80
Body ache	44	36.70
Back ache	31	25.80
Swelling of hands & legs	12	10.00

A perusal of the Table 6 shows that 36.70 per cent and 25.80 per cent of the women have health problems like body ache and back ache respectively due to participation in rice cultivation activities. The reason behind this may be the bending position of the respondents with which they work for long hours. Similarly 10.80 per cent have headache and 10 per cent swelling of hands and legs problem. The reason behind this may be working for long hours in water logging soil and interaction with some chemicals.

CONCLUSION

Empowering farm women for quality life is important today. The overall participation of women in rice cultivation is as high as 71.62 per cent. High participation has also helped women to get empowered. Technological empowerment is high due to higher participation in all activities of rice cultivation. There is scope of improving economic empowerment by giving knowledge about marketing to women and motivating them participate in marketing activities. Similarly social empowerment is equally important for the quality life of women and family. As social empowerment index is only to the extent of 48.00, there is a need to take steps by extension workers which leads to the improvement of social empowerment of women involved in rice cultivation.

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