Gender Differences in Agricultural Empowerment: A Study of Farm Households in Tripura

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ABSTRACT

In all walks of life there are gender differences in needs, problems, capacities, opportunities and impacts. Proper gender mainstreaming strategy requires understanding of these differences. The study was conducted in 60 randomly selected households (comprising a primary man and woman member engaged in agriculture) of Charilam block, Sepahijala district, Tripura to investigate the gender differences in the agricultural empowerment. The tool used for measuring empowerment was the Women's Empowerment in Agriculture Index (WEAI) developed collaboratively by the USAID, IFPRI and OPHI. It was observed that the mean empowerment score of men was higher than that of women though no significant difference was observed between the two. The mean empowerment score of tribal women was significantly higher than that of non-tribal women. Family size, cosmopoliteness and information seeking behavior of was found to be positively and significantly related with the level of empowerment for women. While for men, only family size showed significant relationship with empowerment. Education of respondents was observed to have significant relation with gender parity within a household. Majority of women reported household drudgery, stringent traditional taboos & restriction, balancing farm & home and lack of gender friendly equipments as major problems. As for men, important problem was demanding family members.

Key words : *Gender, Agricultural Empowerment, Tripura, Tribal Women*

Gender has become a topic of discussion among scholars, researchers and national development planners. Gender refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women. Women and men have different roles, responsibilities, contributions and constraints in agricultural activities. On an average, women represent 43 per cent of the world's agricultural labour force (FAO, 2011). Across the countries the labour force participation rate is found to be 58.00 per cent of women and 84.00 per cent of men in Bangladesh, 50.00 per cent of women and 88.00 per cent of men in Guatemala and 27.00 per cent of women 80.00 per cent of men in India (World Bank, 2015). However, women cultivators are typically and wrongly characterized as economically inactive farmers' wives (Samanta, 1994) and only men are considered as farmer by policy makers, development planners and agricultural experts and service delivers (Nosheen et al. 2008). Gender inequalities in treatment and opportunities are faced by women worldwide.

Womenfolk in indigenous society of Tripura enjoyed a position of considerable importance. But since 19th century, continuous assimilation with immigrant Bengalis in the state has brought socio-cultural and economic changes in tribal society including the status of women (Ghosh and Choudhury, 2011). This paper attempts to find out the differences in agricultural empowerment of men and women across ethnic groups.

METHODOLOGY

Sampling Plan : The study was conducted in Charilam block of Sepahijala district of Tripura. Three tribal villages and three non-tribal villages were selected randomly. From each village, ten households were selected randomly and from each household the primary woman and man member was interviewed. Thus, a total of 60 women and 60 men constituted the respondents of the study.

Measuring Tool : The tool used for measuring empowerment and was the Women's Empowerment in Agriculture Index (WEAI) developed collaboratively by United States Agency for International Development (USAID), International Food Policy Research Institute (IFPRI), Oxford Poverty and Human Development Initiative (OPHI) (IFPRI, 2012). The WEAI is an innovative tool composed of an aggregated index reported at country or regional level that is based on individual-level data on men and women within the same households. It is composed of two indices.

a) Five domains of empowerment (5DE) : This sub-index assesses whether an individual is empowered across the five domains and the ten indicators examined in WEAI. Each domain is weighted equally, as are each indicator within the domain. An individual is define as empowered in 5DE if she/he has adequate achievements in four of the five domains or is empowered in some combination of the weighted indicators that reflects 80.00 per cent total adequacy.

b) Gender Parity Index (GPI) : This sub-index reflects the percentage of women who are empowered as men in their households.

Operationalisation of Variables : For this present study, two dependent variables are considered: the individual empowerment score and the household gender parity. The calculated weighted adequacy score for each individual across the ten indicators and five domains of the 5DE is considered to be the individual empowerment score. The score ranged from 0 to 1.

Table 1
Domains, Indicators and Weightage

Sr. No.	Domains	Indicators	Weight
1.	Production	Input in productive decision	1/10
		Autonomy in productive decision	1/10
2.	Resources	Ownership of assets	1/15
		Purchase, sale and transfer of assets	1/15
		Access to and decision about credit	1/15
3.	Income	Control over the use of income	1/5
4.	Leadership	Group membership	1/10
		Speaking in public	1/10
5.	Time	Workload	1/10
		Leisure	1/10

*** Significant at 0.01 level of probability*

The empowerment score of the women and men of the same household was compared. According to the empowerment gap, households were classified into three categories as,

- Households with gender parity: Households where either both the women and men have the same empowerment level or households where both the women and men have achieved 80.00 per cent or more empowerment score.
- Households with men disparity: Households where the men have less than 80.00 per cent empowerment score and the women have more score than him.
- Households with women disparity: Households where the women have less than 80.00 per cent empowerment score and the men have more score than her.

RESULTS AND DISCUSSION

Individual and household profile of the respondents

Individual Profile : Majority of the respondents fall within the age range 35 to 50 years. 36.67 per cent

Table 2
Profile of individual respondents

Variables	Categories	Women (N=60)		Men (N=60)	
		Frequency	Percentage	Frequency	Percentage
Age	Young (below 35 years)	19	31.67	8	13.33
	Middle age (35 to 50 years)	33	55.00	40	66.67
	Old (above 50 years)	8	13.33	12	20.00
Education	Illiterate	22	36.67	18	30.00
	Only read	0	0.00	0	0.00
	Read and write	0	0.00	1	1.67
	Primary level (1-5 class)	6	10.00	11	18.33
	Middle level (6-8 class)	12	20.00	9	15.00
	High school level (9-10 class)	20	33.33	16	21.67
	Higher secondary level (11-12 class)	0	0.00	3	5.00
	Graduate and above	0	0.00	2	3.33
Cosmopoliteness	Low (upto 12.39)	24	40.00	2	3.33
	Medium (12.40-18.77)	31	51.67	37	61.67
	High (18.78 and above)	5	8.33	21	35.00
Information seeking behaviour	Low (upto 14.73)	11	18.33	5	8.33
	Medium (14.74-18.31)	44	73.33	40	66.67
	High (18.32 and above)	5	8.33	15	25.00

women and 30.00 per cent men were illiterate. The 33.33 per cent women and 21.67 per cent men had received formal education up to high school level. No women respondent had attended formal education beyond high school however some men reported to have attended higher secondary (5.00%) and graduation (3.33%). Majority of women and men fall under medium level of cosmopoliteness and information seeking behaviour. It was also observed that in low category the percentage of women were more than men whereas, in high category women were found to be less in number than men. Women mostly remain bound with their own household works, had to depend on their partners and did not find much time go out for entertainment, personal, related to agriculture, and general purpose compare to men. In the study area source of information was mostly from panchayat members, farmers' group, village level extension

Table 3
Profile of the households (N=60)

Variable	Categories	Frequency	Percentage
Age of respondents within the household	Women older than men	1	1.67
	Women and men having same age	7	11.67
	Men older than women	52	86.67
Education level of respondents within the household	Women having education level higher than men	14	23.33
	Women and men having same level of education	23	38.33
	Men having education level higher than women	23	38.33
Social category	General	30	50.00
	S.T.	5	8.33
	SC	19	31.67
	OBC	5	8.33
	Others	1	1.67
Family Size	Small (2-4 members)	30	50.00
	Medium (5-8 members)	24	40.00
	Large (9 and above)	4	6.67
Family income	Low (<₹ 33,750)	2	3.33
	Medium (₹ 33,751-1,44,000)	48	80.00
	High (> ₹ 1,44,001)	10	16.67
Household land holding	Marginal (<1Ha)	49	81.67
	Small (1-2Ha)	7	11.67
	Semi-medium (2.1-4Ha)	3	5.00
	Medium (4.1-10Ha)	1	1.67
	Large (>10Ha)	0	0.00
Cosmopoliteness of individuals within the household	Women having cosmopoliteness score higher than men	10	16.67
	Women and men having same cosmopoliteness score	2	3.33
	Men having cosmopoliteness score higher than women	48	80.00
Information seeking behaviour of individuals within the household	Women having information seeking behaviour score higher than men	13	21.67
	Women and men having same information seeking behaviour score	4	6.67
	Men having information seeking behaviour score higher than women	43	71.67

workers, friends, relatives and TV.

Household Profile : As per the sampling plan there were 30 Scheduled Tribe households. In the non-tribal villages mostly Bengali Hindus inhabit where 19 households were Scheduled Caste, 5 General and 5 Other Backward Classes. In many households (86.67%) the primary men were older than the women. Similar finding was also captured by Nosheen et al. (2008) that women were younger than their men counterparts. There was similar proportion (38.33% each) of household where men have higher level of education than women and household where women and men have same level of education. Majority of the households (70.00%) were found to have small family size of 2-4 members. 80.00 per cent households had an annual family income of 33, 751/- to 1, 44,000/-. Large proportion of the households (81.67 %) was found to come under marginal land holding group followed by small and medium land holders whose proportion was 11.67 per cent and 5.00 per cent respectively. Department of Agriculture, Government of Tripura (2013) also reported that 87 per cent of the farmers of Tripura are found to be marginal. Major proportion of households had men having higher cosmopoliteness (80.00%) and higher information seeking behaviour (71.76%) score than women. Women, mostly the non-tribal reported that their movement and contact outside the house is restricted by tradition and role as the home-maker. This restricts them from contacting information sources. Men attend trainings, extension agents contact only men, and women by tradition are restricted to freely mingle with others outside family.

Empowerment in Agriculture Score : It was observed that 40.00 per cent of women have low empowerment score followed by medium (31.66%) and high (28.33%). It is also seen that 38.33 per cent of men which is slightly lower than women were found to be under low empowerment score followed by medium (36.67%) and high (25.00%). The average weighted score of the ten indicators of a respondent is her/his empowerment score. Mean empowerment score of women (0.791) was found to be less than men (0.805).

Table 4
Distribution of respondents according to their empowerment score

Sr. No.	Category	Women (n=60)		Men (n=60)		Overall (n=120)	
		Frequency	%	Frequency	%	Frequency	%
1	Low (upto 0.74)	24	40.00	23	38.33	47	39.17
2	Medium (0.75-0.85)	19	31.66	22	36.67	41	34.17
3	High (0.85 and above)	17	28.33	15	25.00	32	26.67

Table 5
Differences in empowerment score of different categories of respondents

	Mean empowerment score	t	Sig. (2-tailed)
Overall			
Men (n=60)	.805	.715	.476
Women (n=60)	.791		
Non-Tribal village			
Men (n= 30)	.783	1.061	.293
Women (n=30)	.754		
Tribal Village			
Men (n=30)	.827	.000	1.000
Women (n=30)	.827		
Women			
Non tribal women (n=30)	.753	**-2.542***	.014
Tribal women (n=30)	.826		

Differences in Empowerment Score : To find out any significant difference in the empowerment score between different categories of respondents, t-test was performed. Details are presented in Table 5.

No significant differences were observed between the overall empowerment score of women and men. If we see the gender differences in empowerment in the tribal and non-tribal villages as well, there seen to be no significant difference. It is interesting to find though that in the tribal villages, women and men have same empowerment score. Another salient finding was that mean empowerment score of tribal women was significantly higher than that of non-tribal women. Debbarma (2011) highlighted that tribal women enjoy much better social status than non tribal women. Study by Bhasin (2007) reported that even though the tribal societies are patriarchal and public sectors are dominated by men, in their own world women have a freedom for self expression.

Household Gender Parity in Agricultural Empowerment : In Table 6 it was observed that 46.67 per cent of the households had gender parity, 25.00 per cent had men disparity and another 28.33 per cent has women disparity. More number of tribal households (63.33%) have gender parity as compared to non-tribal households (30.00%). It is also observed that many in non-tribal households (43.33%) women were not empowered while the percentage was less in the case of tribal women (13.33%). This is an indication of the higher level of empowerment enjoyed by tribal women as compared to their non-tribal counterparts. Details are presented in Table 6.

Table 6
Distribution of households according to parity in empowerment of individuals within the household

Sr. No.	Category	Tribal (n=30)		Non-tribal (n=30)		Overall (n=60)	
		Frequency	%	Frequency	%	Frequency	%
1	Households with men disparity	7	23.33	8	26.67	15	25.00
2	Households with gender parity	19	63.33	9	30.00	28	46.67
3	Households with women disparity	4	13.33	13	43.33	17	28.33

Relationship of empowerment score with selected individual variables : Appropriate statistical tools were used to find the relationship of empowerment score with selected individual variables. Details are presented in Table 7.

Table 7
Relationship of empowerment score with selected individual variables

Variables	Tool	Women (n=60)	Men (n=60)
Age	Pearson correlation	-.003	.166
Education	Pearson correlation	.139	.111
Social category	Chi square test	12.074	9.194
Family income	Pearson correlation	.009	.041
Family size	Pearson correlation	**.287****	**.230***
Land holding	Pearson correlation	.013	.059
Cosmopoliteness	Pearson correlation	**.412*****	-.034
Information seeking behaviour	Pearson correlation	**.237***	.061

****Correlation is significant at the 0.01 level (2 tailed)*
***Correlation is significant at the 0.05 level (2 tailed)*
** Correlation is significant at the 0.1 level (2 tailed)*

For women, the empowerment score was found to be positively and significantly correlated with cosmopoliteness, family size and information seeking behaviour at 1 per cent, 5 per cent and 10 per cent level of significance respectively. As for men, family size found positive and significant association with empowerment score at 10 per cent level of significance. The result indicates that for women cosmopoliteness is the most important factor determining empowerment. The more a women is in contact with the people outside her household and community, the more is her empowerment. Interestingly, respondents belonging to big size families were found to be more empowered. This may be attributed to the strong physical, mental, emotional as well as financial support system a big family can provide to its members which a small family usually lack. Information seeking behaviour is also another factor affecting the empowerment level of women. Adekanye et al. (2015) also reported that information seeking behaviour has significant and positive relationship with the socio-economic empowerment. No significant relationship of the level

of empowerment was observed with the other independent variables (age, education, social category, family income, and land holding) for both the gender.

Relationship of the household gender parity with selected household variables : Table 8 depicts the details of the relationship of gender parity with selected household variables.

Table 8
Relationship of the household gender parity with selected household variables (n=60)

Variables	Tool	Value
Age of respondents within the household	Spearman's correlation	0.064
Education of respondents within the household	Spearman's correlation	**0.287****
Social category	Chi square test	0.137
Family size	Spearman's correlation	-0.084
Family income	Spearman's correlation	-0.165
Land holding	Spearman's correlation	-0.085
Cosmopoliteness of respondents within the household	Spearman's correlation	0.041
Information seeking behaviour of respondents within the household	Spearman's correlation	-0.204

***Correlation is significant at the 0.05 level (2 tailed)*

Among all chosen variables only education level of respondents within the household was found to have a significant and positive relationship with gender parity in empowerment at 5 per cent level of significance. This indicates that the achievement of gender parity as well as empowerment level of an individual within a household is significantly determined by her/his level of education in relation to her/his counterpart. Respondents who are educated in the household receive enough respect and has adequate decision making ability for self and other in the family.

Gender disaggregated problem profile : The problems in agriculture identified by the respondents are presented in Table 9 categorised according to gender and ethnicity.

Lack of gender friendly equipments counted one of the problems faced by both tribal (90.00%) and non tribal women (73.33%). This problem was reported by more tribal women, as almost all of them actively participate in agricultural activities irrespective of their socio-economic status which is not so in the case of non tribal women. Women find problem in handling farm equipments when their husband fall sick or as and when necessary. They also reported difficulty to handle heavy fishing net when they use to catch fish from pond.

Tribal women (43.33%) complaint more about the low wage/wage not commensurate with work and the response were found to be more compare to non-tribal women (13.33%). Tribal women engage in agricultural and other livelihood activities irrespective of their socio-economic status unlike their non-tribal counterparts. Non-tribal women belonging to well to do families hardly engage in farm activities. In the study area the wage was found to be 200/- for women and 250/- for men. Some women stated that even though they were unable to handle heavy implements and machinery or engage in heavy labour, their works are immense and more time consuming. This calls for similar wage for both men and women. Since majority of the households are marginal farmers, they are engaged as wage labourers in others fields to earn extra income. Kim (2000) reported that wage of women were lower. According to Mahajan (2011) lower wage of women can be due to greater women labour supply.

Low access and control over productive resource was reported most by non-tribal women (56.68 %) followed by tribal women (33.33%). Only few men reported this problem. The study is in line with the finding of FAO (2011). Tribal women respondents reported that they don't own agricultural lands but only small livestock. While non-tribal women reported that they own large consumer durables received from her parents as gift during marriage. Most productive resources in agriculture including land were owned and controlled by men. Some men who cultivate in rented land (palta) do not have much control over these resources.

On low decision making ability on production, equal proportion of tribal women (56.67%) and non-tribal women (56.67%) responded. Only 10.00 per cent of tribal men and 3.33 per cent of non-tribal men have responded for this problem. The main reason behind this was found that many women lack confidence in taking decision solely. At the same time men also do not bother to consult women in taking decisions especially related to production.

Problem related to lower access to agricultural credit was faced by 33.33 per cent of tribal women, 6.67 per cent of non tribal women, 26.67 per cent of tribal men, and 16.67 per cent of non tribal men. Many households reported saving money for the next cropping season. If required they borrow from relatives, bandhak group and pay off later after selling off their animals (especially pigs in case of tribal women) and agricultural produce. And hence, there is no requirement for credit. The least involvement of non-tribal women in agricultural activities and decision-making contribute to their less knowledge of the need for credit. Main reasons for low access to

Table 9
Gender disaggregated problem profile of the area under study

	Women		Men	
Problems	**Tribal**	**Non-tribal**	**Tribal**	**Non-tribal**
A. Agriculture/allied activities				
i. Lack of gender friendly equipments	27 (90.00)	22 (73.33)	0 (0.00)	1 (3.33)
ii. Low wage/wage not commensurate with work	13 (43.33)	4 (13.33)	6 (20.00)	8 (26.67)
iii. Low access and control over productive resource	10 (33.33)	17 (56.67)	4 (13.33)	4 (13.33)
iv. Low decision making ability on production	17 (56.67)	17 (56.67)	3 (10.00)	1 (3.33)
v. Low access to agricultural credit	10 (33.33)	2 (6.67)	8 (26.67)	5 (16.67)
vi. Spatial mobility	13 (43.33)	9 (30.00)	7 (23.33)	4 (13.33)
vii. Low access to information sources and extension services	23 (76.67)	22 (73.33)	18(60.00)	20 (66.67)
B. Household				
i. Balance in farm and home	28 (93.33)	22 (73.33)	2 (6.67)	2 (6.67)
ii. Financial dependence on other member	8 (26.67)	29 (96.67)	0 (0.00)	0 (0.00)
iii. Lack of proper nutrition and health problem	20 (66.67)	22 (73.33)	19 63.33)	21 (70.00)
iv. Household drudgery	28 (93.33)	30 (100.00)	5 (16.67)	7 (23.33)
v. Demanding family member	15 (50.00)	21 (70.00)	19 63.33)	24 (80.00)
vi. Stringent traditional taboos and restriction	26 (86.67)	30 (100.00)	0 (0.00)	0 (0.00)
vii. Low decision making ability	19 (63.33)	27 (90.00)	3 (10.00)	1 (3.33)
viii. Lower access and control over household assets	6 (20.00)	4 (13.33)	1 (3.33)	0 (0.00)
C. Community				
i. Bargaining power in community	10 (33.33)	21 (70.00)	5 (16.67)	5 (16.67)
ii. No voice in community gatherings	3 (10.00)	7 (23.33)	2 (6.67)	4 (13.33)

credit, for those needing credit were lack of awareness of sources and schemes, lengthy official procedures, requirement of guarantor etc. Adedayo and Tunde (2013), Lal and Khurana (2011) and Fabiyi et al. (2007) reported the constraint of access to agricultural credit by women.

Spatial mobility response from tribal women (43.33%) was found to be more followed by non tribal women (30.00%) tribal men (23.33%), non-tribal men (13.33%). Tribal women were found to be active in their activities but they were restricted to go out for work in far off places or marketing because of household chores. However, for non-tribal, customs bind them and many are accustomed to be confined at home as home-makers.

Low access to information sources and extension services was a problem reported by many respondents irrespective of their gender though the number of women reporting this is slightly more. Women complained that agricultural information and other services hardly reach them directly. Whereas in case of men their complaint was they don't receive information at right time for right problem. Khan et.al (2012) found that women encountered problem in extension services in agriculture. Nosheen et al. (2008) captured that women compare to their counterparts have less access to extension services and technology, education and training.

Tribal women of 93.33 per cent and 73.33 per cent non-tribal reported the problem of balancing farm and home. The study also in line with Debbarma (2011) the division of work is heavily loaded against the tribal women and also bears the burden of all house hold works. Non-tribal women, if not compelled to meet financial needs hardly take up farm activities. Only few men reported this problem as their involvement in household chores is almost negligible.

Financial dependence on others was reported

problem by vast majority the non-tribal women (96.67%) while only some tribal women (26.67%) reported this problem. Awais et. al (2009) highlighted that unlike other communities tribal women not only earns money but also saves money which means they were less dependent on their partners. This problem was not reported by any men.

Lack of proper nutrition and health problem was common problem for both tribal and non-tribal families. The tribal families said they were unaware of conventional balanced diet and modern health care. They believe that spirits and black magic are reasons behind health issues. The non-tribal families believed that health problem is due to ignorance and are seasonal which cannot be avoided.

Majority of the tribal women (93.33%) and non-tribal women (100.00%) responded household drudgery while the response from tribal men (16.67%) and non tribal men (23.33%) was found less. Household drudgery is mostly a female centric problem as they are engaged in repetitive household chores every day.

Demanding family member is also a common problem reported by many respondents though the percentage of men is relatively higher. Men reported that they are caught in the high demand for food, education, entertainment and luxuries by family members which sometimes are beyond what they can afford. While women report that the members demands for good food and other household works in odd hours.

Stringent traditional taboos and restriction was a problem reported only by the women folk, almost all of them. Especially in Bengali families, women are bound by many customs, traditions and rituals which restrict their mobility, decision-making and interaction with others. Tribal women though comparatively better are also not allowed to hold the office of the priest. Godora and Rani (2015) also reported that majority of women were traditionally bound.

Response related to low decision making ability in household was captured more in women especially the non-tribal. Only few men reported this constraint. As in many patriarchal societies most decisions are taken by men or with discussion with elder member of the family whereas, women take only supportive role and lack confidence in making decisions. Sharma et al. (2013) also reported this constraint.

Low access and control over household assets was another problem reported by some women and few men. This all depends on the power relation between the two primary adults within the household.

Tribal women of 33.33 per cent, major portion (70.00%) of non-tribal women and only 16.67 per cent of both tribal and non-tribal men reported that they have problem related to bargaining power in the community. Because of their soft, shy nature and also by societal norms women tend to avoid conflict. In general tribal women were not restricted to attend any community programme if they wish to but because of their busy schedule they are unable to attend. In case of non-tribal women by tradition participation in the community is not much encouraged.

No voice in community gatherings was reported by tribal women was 10.00 per cent and 23.33 per cent non-tribal women, tribal men 6.67 per cent and 13.33 per cent non tribal men. By tradition women are not encouraged and do not participate in the community gathering so they think that is normal and do not have much problem on this. Whereas men complain that their voice is not considered in the community if their socio-economic status is low and also agrees with elders' decision. Das (2012) reported that tribal women are passive participant in decision making in community level.

CONCLUSION

Women and men have different roles and responsibilities as defined by the society they live in. In this study various aspects of gender differences in farming households of Tripura are brought out. It is clearly evident from the findings that women in tribal households are relatively more empowered than their non-tribal counterparts even though the men in both the cases seem more empowered than women. The problems identified in the study also mirrors that tribal women are more empowered and involved in agricultural activities. The findings of the study are a reference for what are the ground level realities in gender relation in the study area. It is also a feed for gender mainstreaming strategies for agricultural development and women empowerment.

Paper received on : October 03, 2015
Accepted on : October 24, 2015

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