

Original Research Article

Enumerating the role of farm females in farm family decision making – a study in Manipur, India

ABSTRACT

Background

Manipur, a North-Eastern State of India where about 49.81 per cent of total population is women [3] and they contribute about 51.46 per cent of total working force. The state, which is relatively backward in agricultural development paradigm, has a glorious past regarding women's 'movement' for the state's cause. Now, it is to be understood properly their role and participation in farm economy for revamping the agrarian situation in the state by exploring the farm women's role.

Methods

The study was conducted by collecting both secondary as well as primary information from sample respondents equally distributed over two valley districts (namely, Thoubal and Imphal East) of Manipur. In all the phases of selection (of sub-division, block, village etc.) the method of probability proportional sampling was employed. Standard econometric methods and statistical packages were applied to elucidate the core objective(s) of the study.

Results

The status of participation of farm women in decision making process has been judged with the help of Participatory Index (P.I) and Decision Making Index (DMI). Farm women, in general, participates prominently in socio-cultural matters (DMI = 0.86-0.93) and miscellaneous matters (DMI = 0.83-0.96), moderately in family's financial/economic matters (DMI = 0.62-0.89) but rather poorly (DMI = 0.43-0.56) in farming matters. More specifically, they are relatively less consulted or are given less importance on matters like consultation with officials (private or government), purchase of household furniture, purchase of improved implements/machineries, selection of crop variety, input management in crop cultivation etc.

Keywords: Decision Making Index, Participatory Index, Farm Women, Women Labourer.

1. INTRODUCTION

Manipuri women's role in the socio-economic and cultural life is significant. Women are entering into labour force to make economic contribution as an additional means of farm family livelihood. In every household, women are equally engaged in some or other economic activities with men but the level of income is not appreciable. Decision as emanating from self-decision taken as heads, decision taken when male members are not working or unwell, decision taken where male adult members are least present and those taken under mutual conditions [5]. The fact remains that the decision-making head of a farm family has to decide many things (of variegated nature and dimension) at the same time. From time immemorial, usually males take an active roles in decision making in different areas of agriculture as the influence of women in agriculture has not been recognized [7] although women's participation in the decision making process has a significant impact on their improved status and greater role in society [2]. He/she takes farm related decision like 'selection of enterprises', sequence of cropping, variety (under each crop) to be adopted or to be replaced, land reclamation etc. The financial matters on which he/she has to decide are purchase of assets, availing / accessing credit, wage determination etc. [4,13,14,15]. At the same time decisions are being about social matters like education of children, attending social functions/ceremonies, marriage of family members and relatives, etc. Also the decisions engulfed matters like medical treatment of family members, joining clubs/association, attending meeting/training programmes etc. Now, the question arises, 'who' takes 'what' decisions? Is it the sole responsibility of the men members of the family or joint association of male and female members together to take a conjugal decision? Do the farm women are taken into confidence while deciding about a matter? We sought for answering these questions in subsequent sections.

An understanding of the above narrated 'phenomenon' in our study area has been judged from two different perspectives: (i) participation of women in farming activities (may be as employer farmer or as a worker) and (ii) participation of farm women in deciding about multifarious problems/tasks. Women participate directly or indirectly in decision making and marketing too. Above all, the state is unique being having matriarchal society. Manipur has witnessed the successful role of collective women's power in the past and also in the present day. However despite of their major contributions in the socio-economic and political life of the state, they are not given their due position in society.

2. METHODOLOGY

Chiefly multistage random sampling technique was adopted for the study. The North-Eastern State Manipur and two valley districts i.e., Thoubal and Imphal East was selected purposively for the study. One block from each district namely, Thoubal block from Thoubal and Sawombung block from Imphal East was selected basing on the intensity of population being associated with farming practices there. Six villages from each block were selected by probability proportional sampling technique. Thus, a total of 120 labourers (n= 60 women labourer each from respective two districts) and 120 employer farmers (n=30 from women in female-headed households each from respective two districts and n=30 women in male-headed household each from respective two districts) were selected. Again, the employer farmer households are equally divided into male-headed households and female-headed households. So, finally, 60 male-headed farming households and another 60 female-headed farming households constitute the employer farmer sample unit. Therefore, basically three distinct set of sampling units constitute the study frame: women labourers, female employer farmers and male employer farmer. Women labourers are those who are basically landless (barring the homestead area, they owe no land at all) and wage-earning is their prime occupation.

The study is based on both secondary as well as primary information. The secondary data were collected from different reports, relevant websites, journals, magazines, unpublished materials etc. The primary data and relevant information were collected during 2018-19 from the selected sampling unit of study areas. Door to door survey method was used to gather relevant information with the help of sets of structured questionnaires. The collected data are checked and cross verified for accuracy, consistency and reliability.

2.1 Participatory Index (PI)

The value of Participatory Index (PI) and Decision Making Index (DMI) have been measured with two separate purposes: Participatory Index (PI) to indicate about respondents' aggregate performance in a particular decision making sub-domain (aggregate of all n nos. of respondents) under a particular domain while Decision Making Index (DMI) to indicate individual's performance in decision making domain (aggregate of all m nos. of sub-domains under each domain). Participation Index is measured with the following formula:

$$\text{Participation Index} = \frac{\sum_{i=1}^n X_i f_i}{N \times n}$$

Where, X_i =Score assigned for i th level of participation

f_i =frequency of women participated in i th level

n =maximum score levels assigned (here, 3 for decision participation)

N =number of women considered for the study in each category

2.2 Decision Making Index (DMI)

Decision Making Index has been measured using following formula :

$$D_j = \frac{1}{k \times N} \sum_{r=1}^k P_r$$

Where,

D_j = Decision Making Index for each sub-domain of a respondent

P_r = Score obtained in each r-th sub-domain

k = nos. of sub-domain

N = Maximum obtainable score in m-th sub-domain.

$$DMI_i = \frac{1}{m} \sum_{j=1}^m D_j$$

Where,

DMI_i = Decision Making Index (DMI) for i-th individual respondent

D_j = Decision Making Index (DMI) for each sub-domain

m = nos. of sub-domain of decision-making

$$DMI = \frac{1}{n} \sum_{i=1}^n DMI_i$$

Where,

DMI = Overall Decision Making Index for a particular category in a village/block

n = nos. of respondents in a category in a village/block

$i = 1, 2, \dots, n$; $j = 1, 2, \dots, m$; $r = 1, 2, \dots, k$.

2.3 Kruskal-Wallis test

Kruskal-Wallis test (H_0 : all categories under study are equal), the nonparametric analog to One-way Analysis of Variance was employed for testing the equality of several independent sample under different districts with respect to a particular attribute, as well as several attributes within a particular district. The Kruskal-Wallis test procedure is an extension of Mann-Whitney test (Rangaswamy, 1995). The Kruskal-Wallis test statistic is based on the assessment of the difference among the average ranks. The Kruskal-Wallis statistic is, then, given by

$$T = \frac{12}{N(N+1)} \sum_{i=1}^v \frac{R_i^2}{r_i} - 3(N+1)$$

Where,

R_i = the sum of the ranks of the observations pertaining to the i^{th} district/category

N = total number of observation

v = number of district (for first situation)/attribute (for second situation)

r_i = number of observation under i^{th} district/attribute, $i = 1, 2, 3, \dots, v$

T may be approximated by the chi-square with $(v-1)$ degrees of freedom.

3. RESULTS AND DISCUSSION

3.1 Participatory Index (PI) and Decision Making Index (DMI)

Considering farm women's importance in decision making process, an attempt has been made in the study to examine their role in 'daily life' of farming household. A farm household's decision pivots, in general, around four major fields such as (i) socio-cultural, (ii) farming related, (iii) economic/financial aspects and (iv) miscellaneous family matters. Each of these broad fields has a nos. of sub-fields. Farm women's role in decision making has been judged by developing both Participation Index [8] and Decision Making Index [11]. Both these concepts are measured on the basis of a four point rating scale and designed with four kinds of responses like never consulted (NC), consulted but not implemented (CBNI),

consulted but partially implemented (CPI), consulted and fully implemented (CFI). The corresponding scores assigned for each response were 0, 1, 2 and 3 respectively [8].

Now, a close perusal of Fig.1 (a & b), Tables 1 - 6 indicates that women of farming households, in general, participates prominently in socio-cultural matters (DMI = 0.86-0.93) and miscellaneous matters (DMI = 0.83-0.96), moderately in family's financial/economic matters (DMI = 0.62-0.89) but rather poorly (DMI = 0.43-0.56) in farming matters. There is no difference among different categories in respect of socio-cultural matters in Thoubal but the DMI of women in female-headed households of Imphal East is significantly ($P < 0.01$) less than of wage-earning households or male-headed households. Women, in the study area, do take prominent role on education of the children, marriage of the family members, attending social ceremonies, etc. which is obvious in a matriarchal society like that of in Manipur. But farm women are moderately allowed in the matter of consultation with officials of various organizations especially, in the male-headed employer farmer households. Ignorance (about social institutions), lack of mobility and poor educational back up may be the underplaying factors behind this incidence. More than the cultural barrier, technical incompetency is crucial here. Medical treatment of any family member is an absolute domain of female members. It is more of joint type of decision and women play lead role on this crucial issue.

On miscellaneous matters (like casting of vote etc.), there is significant ($P < 0.01$) difference between women of wage-earning households and male-headed households in respect of DMI in both the district. In Imphal East, the male and female-headed households differ too in this regard. Women are not so much cared in purchase of furniture or other household items in a male-headed household. It is more due to a 'creed' characteristic than to non-caring of women. In about 33-50 per cent cases women's decision on the matter is upheld.

On financial or economic matters, DMI of women in all the categories in Thoubal is at par but both wage-earning households and male-headed households differ significantly ($P < 0.01$) from their female counterparts in Imphal East district. Corresponding values of PI of individual traits under this indicate that farm women are duly consulted and acknowledged in marketing, sale/purchase of livestock, availing credit etc. But, regarding purchase of heavy machineries or purchase of other important inputs, they are consulted only. The question of purchasing improved machineries seems to have differential perception to different categories. As for example, while it is pump machine, power tiller, tractor, seed drill, paddy thresher etc. to an employer farmer, it is limited to the exceedingly required farm implements for a wage-earning households. It is, therefore, found that women in a labour household is duly consulted and taken into confidence while purchasing the farm implement. But women of a male-headed household in both the district are given partial importance on the matter. The decisions put forward by 30-40 per cent of these respondents are duly honoured. Observation of quite similar nature was put forward by [16].

Again, both the male-headed households and wage-earning households differ significantly ($P < 0.01$) with female-headed households in DMI on farming matters in both the district. Women of a female-headed family take lead role in deciding about farming matters like choice of crop, sequence of crop, labour employment etc alongwith the male counterpart which is quite low in other two categories [1,16]. Moderate role of farm women in deciding arrangement and payment of labourer, leasing in and out of farm land is found [6,7,12].

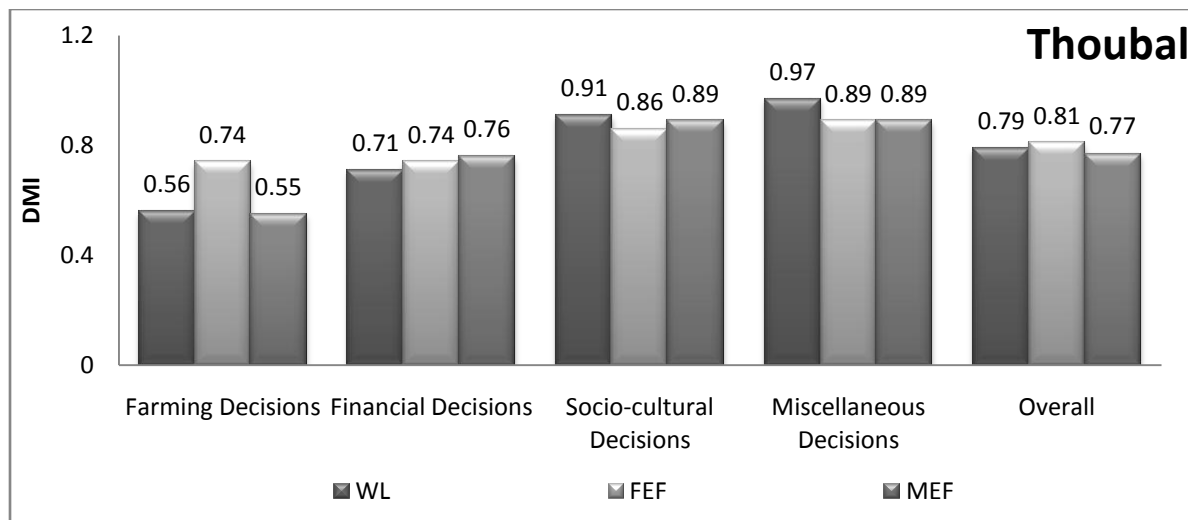


Fig. 1 (a)

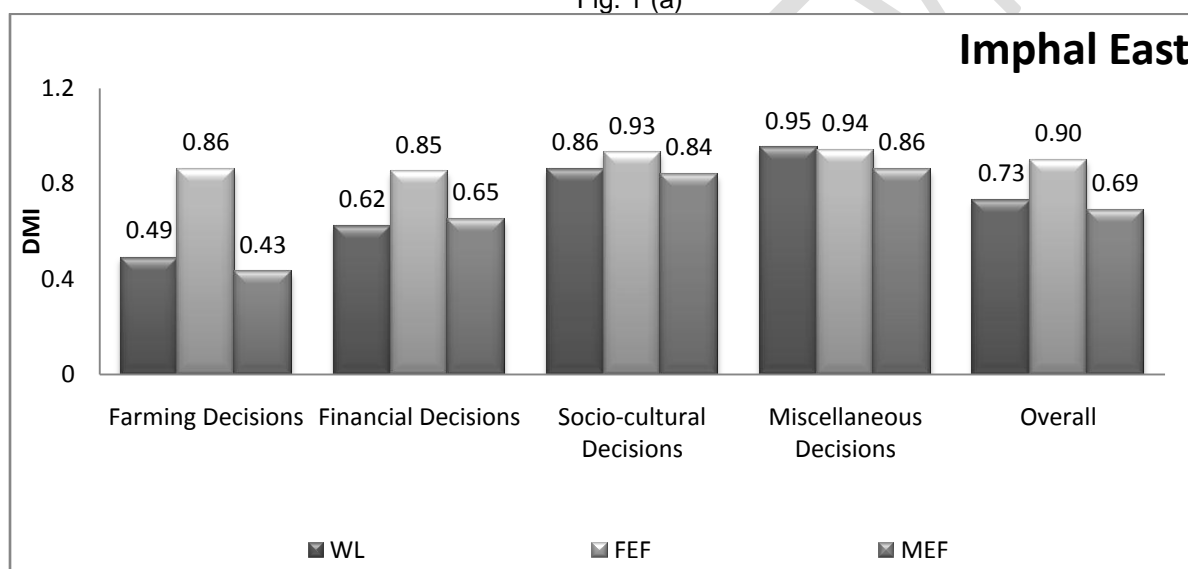


Fig. 1 (b)

Fig. 1 Decision Making Index of farm women in Thoubal and Imphal East
 WL-Women Labourer, FEF-Female employer farmer and MEF- Male employer farmer

Thus, overall DMI for female members varies from 0.73 to 0.79 in a wage-earning farm family, 0.81 to 0.90 in a female headed farm family and 0.69 to 0.77 in a male headed farm family which is quite high; higher than observed by [7]. Rather, it carries the message that they are actively involved in decision making process alongside men [17].

1. CONCLUSION

In our society, both men and women participate in different household activities. Their role is generally complementary, not only in physically participation in farm and home related activities, but also in decision making process. Participation of women in farm decision making also depends on the nature of agriculture being followed. The scope of decision making is usually more in modern agriculture compared to traditional one. (reorganize the conclusion)

Table 1: Decision participation status of women in labour households in Thoubal district (n= 60)

Decision items	Percentage (%) of farm women				Participation Index	Decision Making Index
	Never consulted	Consulted but never implemented	Consulted and partially implemented	Consulted and fully implemented		
Farming Decisions						
Choice of Farming Enterprises	50.00	0.00	15.00	5.00	0.45	0.56
Choice of Cropping sequence	50.00	0.00	15.00	35.00	0.45	
Location/site of enterprises	10.00	0.00	31.67	58.33	0.79	
Land reclamation	10.00	0.00	31.67	58.33	0.79	
Selection of Crop variety	55.00	0.00	13.33	31.67	0.41	
Use of fertilizers and other material inputs	80.00	0.00	15.00	5.00	0.15	
Employment of Labourer	0.00	0.00	30.00	70.00	0.90	
Farm Financial Decisions						
Purchase of inputs	40.00	0.00	35.00	25.00	0.48	0.71
Sale and Marketing of Farm Produce	0.00	0.00	18.33	81.67	0.94	
Purchase/Sale of land, cattle, poultry etc.	0.00	0.00	18.33	81.67	0.94	
Purchase of improved Farm machinery	0.00	0.00	45.00	55.00	0.85	
Availing of Credit	8.33	36.67	28.33	26.67	0.58	
Wage determination	50.00	0.00	6.67	43.33	0.48	
Socio-cultural Decisions						
Education of the children	0.00	13.33	20.00	66.67	0.84	0.91
Marriage of family members	0.00	0.00	5.00	95.00	0.98	
Social ceremonies	0.00	0.00	6.67	93.33	0.98	
Consultation with officials	20.00	0.00	50.00	30.00	0.63	
Attending training programmes	0.00	0.00	0.00	100.00	1.00	
Taking up membership of any organisation	0.00	0.00	0.00	100.00	1.00	
Miscellaneous Decisions						
Casting of vote	0.00	0.00	0.00	100.00	1.00	0.97
Medical treatment	0.00	0.00	0.00	100.00	1.00	
Purchase of household items	0.00	0.00	20.00	80.00	0.93	
Purchase of costly assets	0.00	0.00	20.00	80.00	0.93	
Overall Decision Making Index						0.79

Table 2: Decision participation status of women in labour households in Imphal East district (n= 60)

Decision items	Percentage (%) of farm women				Participation Index	Decision Making Index
	Never consulted	Consulted but never implemented	Consulted and partially implemented	Consulted and fully implemented		
Farming Decisions						
Choice of Farming Enterprises	33.33	26.67	0.00	40.00	0.49	0.49
Choice of Cropping sequence	33.33	0.00	26.67	40.00	0.58	
Location/site of enterprises	33.33	0.00	25.00	41.67	0.58	
Land reclamation	33.33	0.00	25.00	41.67	0.58	
Selection of Crop variety	66.67	0.00	15.00	18.33	0.28	
Use of fertilizers and other material inputs	85.00	0.00	15.00	0.00	0.10	
Employment of Labourer	0.00	0.00	45.00	55.00	0.85	
Financial Decisions						
Purchase of inputs	51.67	0.00	43.33	5.00	0.34	0.62
Sale and Marketing of Farm Produce	8.33	0.00	33.33	58.33	0.81	
Purchase/Sale of land, cattle, poultry etc.	8.33	0.00	33.33	58.33	0.81	
Purchase of improved Farm machinery	0.00	0.00	63.33	36.67	0.79	
Availing of Credit	13.33	33.33	28.33	25.00	0.55	
Wage determination	41.67	8.33	25.00	25.00	0.44	
Socio-cultural Decisions						
Education of the children	3.33	8.33	33.33	55.00	0.80	0.86
Marriage of family members	0.00	11.67	5.00	83.33	0.91	
Social ceremonies	0.00	15.00	10.00	75.00	0.87	
Consultation with officials	8.33	10.00	56.67	25.00	0.66	
Attending training programmes	0.00	0.00	11.67	88.33	0.96	
Taking up membership of any organisation	0.00	0.00	11.67	88.33	0.96	
Miscellaneous Decisions						
Casting of vote	0.00	0.00	0.00	100.00	1.00	0.95
Medical treatment	0.00	0.00	0.00	100.00	1.00	
Purchase of household items	5.00	0.00	13.33	81.67	0.91	
Purchase of costly assets	5.00	0.00	13.33	81.67	0.91	
Overall Decision Making Index						0.73

Table 3: Decision participation status of women in female-headed households in Thoubal district (n= 30)

Decision items	Percentage (%) of farm women					
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	Never consulted	Consulted but never implemented	Consulted and partially implemented	Consulted and fully implemented	Participation Index	Decision Making Index
Farming Decisions						
Choice of Farming Enterprises	20.00	0.00	23.33	56.67	0.72	0.74
Choice of Cropping sequence	20.00	0.00	23.33	56.67	0.72	
Location/site of enterprises	0.00	0.00	40.00	60.00	0.87	
Land reclamation	0.00	0.00	40.00	60.00	0.87	
Selection of Crop variety	30.00	6.67	20.00	43.33	0.59	
Use of fertilizers and other material inputs	40.00	0.00	20.00	40.00	0.53	
Employment of Labourer	0.00	0.00	33.33	66.67	0.89	
Financial Decisions						
Purchase of inputs	16.67	20.00	23.33	40.00	0.62	0.74
Sale and Marketing of Farm Produce	10.00	6.67	23.33	60.00	0.78	
Purchase/Sale of land, cattle, poultry etc.	10.00	6.67	23.33	60.00	0.78	
Purchase of improved Farm machinery	0.00	0.00	56.67	43.33	0.81	
Availing of Credit	16.67	10.00	20.00	53.33	0.70	
Wage determination	13.33	10.00	23.33	53.33	0.72	
Socio-cultural Decisions						
Education of the children	6.67	0.00	30.00	63.33	0.83	0.86
Marriage of family members	0.00	0.00	13.33	86.67	0.96	
Social ceremonies	0.00	0.00	13.33	86.67	0.96	
Consultation with officials	40.00	0.00	20.00	40.00	0.53	
Attending training programmes	0.00	0.00	26.67	73.33	0.91	
Taking up membership of any organisation	0.00	0.00	0.00	100.00	1.00	
Miscellaneous Decisions						
Casting of vote	0.00	10.00	0.00	90.00	0.93	0.89
Medical treatment	0.00	0.00	0.00	100.00	1.00	
Purchase of household items	10.00	0.00	30.00	60.00	0.80	
Purchase of costly assets	0.00	0.00	43.33	56.67	0.86	
Overall Decision Making Index						0.81

Table 4: Decision participation status of women in female-headed households in Imphal East district (n= 30)

Decision items	Percentage (%) of farm women		
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	Never consulted	Consulted but never implemented	Consulted and partially implemented	Consulted and fully implemented	Participation Index	Decision Making Index
Farming Decisions						
Choice of Farming Enterprises	0.00	6.67	26.67	66.67	0.87	0.86
Choice of Cropping sequence	0.00	6.67	26.67	66.67	0.87	
Location/site of enterprises	0.00	0.00	26.67	73.33	0.91	
Land reclamation	0.00	0.00	26.67	73.33	0.91	
Selection of Crop variety	6.67	0.00	40.00	53.33	0.80	
Use of fertilizers and other material inputs	13.33	0.00	40.00	46.67	0.73	
Employment of Labourer	0.00	0.00	16.67	83.33	0.94	
Financial Decisions						
Purchase of inputs	10.00	0.00	30.00	60.00	0.80	0.85
Sale and Marketing of Farm Produce	3.33	0.00	23.33	73.33	0.89	
Purchase/Sale of land, cattle, poultry etc.	3.33	0.00	23.33	73.33	0.89	
Purchase of improved Farm machinery	0.00	0.00	40.00	60.00	0.87	
Availing of Credit	10.00	0.00	26.67	63.33	0.81	
Wage determination	0.00	10.00	26.67	63.33	0.84	
Socio-cultural Decisions						
Education of the children	3.33	0.00	20.00	76.67	0.90	0.93
Marriage of family members	0.00	0.00	0.00	100.00	1.00	
Social ceremonies	0.00	0.00	0.00	100.00	1.00	
Consultation with officials	13.33	0.00	36.67	50.00	0.74	
Attending training programmes	0.00	0.00	16.67	83.33	0.94	
Taking up membership of any organisation	0.00	0.00	0.00	100.00	1.00	
Miscellaneous Decisions						
Casting of vote	0.00	6.67	0.00	93.33	0.96	0.94
Medical treatment	0.00	0.00	0.00	100.00	1.00	
Purchase of household items	3.33	0.00	23.33	73.33	0.89	
Purchase of costly assets	0.00	0.00	26.67	73.33	0.91	
Overall Decision Making Index						0.90

Table 5: Decision participation status of women in male-headed households in Thoubal district (n= 30)

Decision items	Percentage (%) of farm women	Participation	Decision
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	Never consulted	Consulted but never implemented	Consulted and partially implemented	Consulted and fully implemented	Index	Making Index
Farming Decisions						
Choice of Farming Enterprises	53.33	0.00	0.00	46.67	0.47	0.55
Choice of Cropping sequence	53.33	0.00	0.00	46.67	0.47	
Location/site of enterprises	33.33	10.00	6.67	50.00	0.58	
Land reclamation	33.33	10.00	6.67	50.00	0.58	
Selection of Crop variety	53.33	0.00	13.33	33.33	0.42	
Use of fertilizers and other material inputs	43.33	23.33	26.67	6.67	0.32	
Employment of Labourer	0.00	0.00	0.00	100.00	1.00	
Financial Decisions						
Purchase of inputs	40.00	0.00	33.33	26.67	0.49	0.76
Sale and Marketing of Farm Produce	0.00	0.00	16.67	83.33	0.94	
Purchase/Sale of land, cattle, poultry etc.	6.67	0.00	13.33	80.00	0.89	
Purchase of improved Farm machinery	0.00	0.00	60.00	40.00	0.80	
Availing of Credit	23.33	16.67	13.33	46.67	0.61	
Wage determination	0.00	0.00	60.00	40.00	0.80	
Socio-cultural Decisions						
Education of the children	0.00	13.33	20.00	66.67	0.84	0.89
Marriage of family members	0.00	0.00	16.67	83.33	0.94	
Social ceremonies	0.00	0.00	16.67	83.33	0.94	
Consultation with officials	23.33	0.00	40.00	36.67	0.63	
Attending training programmes	0.00	0.00	0.00	100.00	1.00	
Taking up membership of any organisation	0.00	0.00	0.00	100.00	1.00	
Miscellaneous Decisions						
Casting of vote	0.00	0.00	0.00	100.00	1.00	0.89
Medical treatment	0.00	0.00	0.00	100.00	1.00	
Purchase of household items	3.33	6.67	40.00	50.00	0.79	
Purchase of costly assets	0.00	0.00	60.00	40.00	0.80	
Overall Decision Making Index						0.77

Table 6: Decision participation status of women in male-headed households in Imphal East district (n= 30)

Decision items	Percentage (%) of farm women	Participation	Decision
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	Never consulted	Consulted but never implemented	Consulted and partially implemented	Consulted and fully implemented	Index	Making Index
Farming Decisions						0.43
Choice of Farming Enterprises	50.00	6.67	3.33	40.00	0.44	
Choice of Cropping sequence	50.00	6.67	3.33	40.00	0.44	
Location/site of enterprises	50.00	6.67	0.00	43.33	0.46	
Land reclamation	50.00	6.67	0.00	43.33	0.46	
Selection of Crop variety	83.33	0.00	0.00	16.67	0.17	
Use of fertilizers and other material inputs	83.33	0.00	16.67	16.67	0.11	
Employment of Labourer	0.00	0.00	30.00	70.00	0.90	
Financial Decisions						0.65
Purchase of inputs	53.33	0.00	33.33	13.33	0.36	
Sale and Marketing of Farm Produce	10.00	10.00	20.00	60.00	0.77	
Purchase/Sale of land, cattle, poultry etc.	20.00	0.00	23.33	56.67	0.72	
Purchase of improved Farm machinery	0.00	0.00	70.00	30.00	0.77	
Availing of Credit	30.00	20.00	20.00	30.00	0.50	
Wage determination	0.00	0.00	70.00	30.00	0.77	
Socio-cultural Decisions						0.84
Education of the children	0.00	20.00	23.33	56.67	0.79	
Marriage of family members	0.00	0.00	23.33	76.67	0.92	
Social ceremonies	0.00	0.00	23.33	76.67	0.92	
Consultation with officials	36.67	0.00	33.33	30.00	0.52	
Attending training programmes	0.00	0.00	16.67	83.33	0.94	
Taking up membership of any organisation	0.00	10.00	6.67	83.33	0.91	
Miscellaneous Decisions						0.86
Casting of vote	0.00	6.67	0.00	93.33	0.96	
Medical treatment	0.00	0.00	0.00	100.00	1.00	
Purchase of household items	16.67	0.00	50.00	33.33	0.67	
Purchase of costly assets	0.00	0.00	60.00	40.00	0.80	
Overall Decision Making Index						0.69

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