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Gender and livelihood analysis of the tribal farm families

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Abstract
The socio-economic improvement of the tribal's still remains in question in spite of implementation of many developmental projects. We attempted to make gender analysis and determine livelihoods pattern of the tribal of Palghar. The present study was purposively conducted in Palghar districts of Konkan region in Maharashtra. The study revealed that majority of tribal farm families were illiterate, smallholders, belonged to middle age group and their annual income is ranged from Rs 20,000/- to 30,000/-. Most of the tribal's were not received any sort of training. The activity profile indicated females were significantly contributed in households' task, crop and livestock management than their contour men. Inspite of this, men had more access and control over productive resources like land, immovable assets, market, access to extension programs and subsidies. This indicates gender disparity in tribal farm families. Further, analysis of livelihood pattern tribal indicates that farming especially crop production is primary, wage employment is secondary and forest is tertiary source of livelihood. Subsistence rice farming, cultivating minor millets, pulses; kitchen gardening and backyard poultry were the typical options for their livelihood and nutritional security. Irregular wages, subsistence rainfed farming, water scarcity, lack of knowledge and skill were the main constraints in their livelihood diversification. Generating sustainable income and employment through agribusiness enterprises and crop diversification is priority of tribal farm families.

Keywords: Gender analysis, livelihood, tribals

Introduction
There are 437 tribes in India. The analysis of prosperity and poverty from livelihood point of view to understand rural inequalities has attracted considerable attention during the last few decades in India and other developing countries (Sharma, 2005) [3]. The livelihoods among tribal communities in India is complex, dynamic and multidimensional phenomenon, the perception of which varies with geographic location, type of community, age, gender, education, fluctuations in resources, services and infrastructures and social, economic, cultural, ecological and political determinants (Kumar et al., 2009) [2]. Agriculture constitutes main source of livelihood among tribes in India playing a vital role in national economy, rural development, employment and occupation, agro-industries, food and nutrition security, growth and survival, social, economic and cultural conditions and poverty alleviation (Surayya et al., 2008) [4]. Palghar is one of the tribal districts in Maharashtra state. Tribal population is ethnic in composition, smaller in size having subsistence economy based on forest, wages and shifting cultivation. Shifting agriculture on unproductive and uneconomic holdings under un-irrigated condition in the undulating terrains with traditional skill and primitive implements raise only one crop during the monsoon, and therefore, they have to supplement their economy by other types of subsidiary economic activities. They have simple technology, simple division of labour, small-scale units of production and no investment of capital. The production, distribution and consumption are limited to the family. The ability of a household to command sufficient resources for food and basic needs is largely dependent upon social, material and economic conditions. The gender and livelihood strategies of households are determined mostly by their social, demographic, economic and cultural settings. Tribal economy is affected by poverty of the physical environment, ignorance of efficient technique of exploiting natural resources and lack of capital for investment, therefore, lack of food security is a major problem for them. As the socio-economic improvement of the tribal's still remains in question in spite of implementation of many developmental projects, the sustainable rural livelihood approach is being adopted to mitigate problems related to development.

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Investigation on tribal livelihoods and gender analysis necessitates the examination of socio-economic settings, the resource base, livelihoods options and constraints in their livelihood systems. In this study, an attempt has been made to make gender analysis and determine livelihoods pattern of the tribal of Palghar.

Research methodology
The present study was purposively conducted in Palghar districts of Konkan region. The district has dominated tribal population and known as one of the tribal and disadvantaged districts of the Maharashtra. Two blocks 'Jawhar' and 'Mokada' were purposively selected from Palghar. One village from each block i.e., 'Karegoan' from Mokada and 'Dehere' from Jawhar block were selected for present study. From each selected village, '30' households were selected randomly. Total '60' from two villages were included in the study. Further, 60 Male and 60 female were selected for conducting interview. The descriptive and diagnostic research design of social research was used to conduct study. The interview schedule was prepared in consultation with the scientists of Agricultural Extension discipline. The pre-tested interview schedule was used to collect data from the respondents. The personal interview, key informants, and focused group discussion were conducted to collect data. In order to reach valid conclusions and the data were subjected appropriate statistical analysis.

Results and Discussion
Socio-economic characteristics of respondents
The data about socio-economic characteristics such as age, education, annual income, land possession and membership of association are depicted in Table 1.

Table 1: Distribution of the respondents according to their socio-economic characteristics

Sr. No	Characteristics	Male (N=60) f	Male (N=60) %	Female (N=60) f	Female (N=60) %
1.	Age				
i.	Young (<35 years)	12	20.00	22	36.67
ii.	Middle (36-50 years)	35	58.34	31	51.67
iii.	Old (>50 years)	13	21.66	07	11.66
2.	Education				
i.	Illiterate	20	33.34	22	36.67
ii.	Functional Literate	12	20.00	14	23.33
iii.	Primary	28	46.66	24	40.00
3.	Annual income (Rs)				
i.	Up to 20,000/-	20	33.33	44	73.33
ii.	20,001-30,000/-	31	51.67	16	26.67
iii.	>30,001/-	09	15.00	00	0.00
4.	Land possession (ha)				
i.	Landless	7	11.67	50	83.34
ii.	Marginal (<1.00)	10	16.67	6	10.00
iii.	Small (1.00-2.00)	16	26.67	4	6.67
iv.	Semi-medium (2.00-4.00)	21	35.00	00	0.00
v.	Medium (4.00-10.00)	4	6.67	00	0.00
vi.	Large (>10.00)	4	3.33	00	0.00
5.	Professional training				
i.	Yes	4	6.67	15	16.67
ii.	No	56	93.33	45	83.33
6.	Membership of Association				
i.	Yes	8	13.33	38	63.33
ii.	No	52	86.67	22	36.67

It was observed that majority of male (58.34%) and female (51.67%) belonged to 'Middle' age category, followed by 'young age category. Most of the male (46.66%) and female (40.00%) were received primary education, followed by 20.00 percent were found illiterate. More than fifty percent of male had their annual income from Rs. 20,001 to 30,000/- and female had their annual income up to Rs 20,000/- Majority of both male and female did not receive any sort of professional training and only few male and female had membership of different associations.

Activity profile of the tribal
Table 2 clearly indicate that, majority of female were performed household related activities such as cleaning, fetching water, preparing food, washing clothes, take care of children, purchase of grocery, vegetable etc and collection of firewood. The male contribution in management of household activities was very meager.

Table 2: Distribution of the respondents according to their activity profile

Sr. No	Characteristics	Male (N=60) f	Male (N=60) %	Female (N=60) f	Female (N=60) %
1.	Household Tasks				
i.	Cleaning	4	6.67	60	100.00
ii.	Fetching water	20	33.34	53	83.33
iii.	Preparing food	00	0.00	60	100.00
iv.	Take care of children	22	36.67	60	100.00
v.	Washing cloths	00	0.00	60	100.00
vi.	Purchase of grocery	34	36.67	54	90.00
vii.	Firewood Collection	00	0.00	60	100.00
2.	Productive task				
a)	Crop management				
i.	Land preparation	60	100.00	20	33.34
ii.	Sowing/planting	32	53.33	51	85.00
iii.	Intercultural operations	23	38.33	48	80.00
iv.	Fertilizer application	20	33.34	41	68.33
v.	Irrigating crop	10	16.67	23	38.33
vi.	Spraying	43	71.67	10	16.67
vii.	Harvesting	47	78.33	57	95.00
viii.	PHM	45	75.00	53	83.33
ix.	Marketing	56	93.33	19	31.67
b)	Livestock management				
i.	Washing	26	43.33	9	15.00
ii.	Cleaning of shed	30	50.00	34	56.67
iii.	Feeding	31	51.67	30	50.00
iv.	Grazing	35	58.33	27	45.00
v.	Milking	34	56.67	24	40.00
vi.	Marketing	4	6.67	2	3.33
c)	Migration				
i.	Seasonal	31	51.67	15	25.00
ii.	Permanent	00	0.00	00	0.00

As regards to productive task, majority of male were performed the activities such as land preparation, marketing and spraying of insecticides. However, female contribution in sowing, intercultural operation, application of fertilizer, harvesting of crop and post harvest management. In case of livestock management, male and female equally contributed significantly in cleaning of shed, feeding, grazing and milking operation. Majority (51.67%) of the male were seasonally migrated in search of employment either in nearby villages or metro cities.

Table 3: Distribution of the respondents according to their access and control profile

Sr. No	Resources	Access to		Control over/Ownership	
		Male (N=60)	Female(N=60)	Male(N=60)	Female(N=60)
	Land	53 (83.33)	52 (86.67)	49 (81.67)	4 (6.67)
	House	60 (100.00)	60 (100.00)	54 (90.00)	20 (33.34)
	Movable assets	60 (100.00)	12 (20.00)	53 (88.33)	7 (11.67)
	Agri. Implements	60 (100.00)	58 (96.67)	60 (100.00)	54 (90.00)
	Credit	9 (15.00)	4 (6.67)	9 (15.00)	2 (3.33)
	Market	60 (100.00)	40 (66.67)	60 (100.00)	37 (61.67)
	Extension program	20 (33.34)	12 (20.00)	5 (8.33)	6 (10.00)
	Subsidies	30 (50.00)	16 (26.67)	28 (46.67)	14 (23.33)

*Figure in parentheses indicates percentage

Access and control profile
Both male and female were accessed productive assets viz., land, house, implements, market equally. However, male had more access to market, credit, extension program and subsidies as compared to female. In contradictory, male had maximum control over productive assets like land, house, movable assets, implements, credit, market and subsidies than the female. This indicated gender disparity in access and control profile of the tribal households in the Palghar.

Livelihood pattern of tribal households
The main objective of the study was to analyze the livelihood pattern of tribal households in Palghar district. Table 4 indicated that majority of the tribal households (65.00%) were primarily depends on farming for their livelihood. On-farm and off-farm wage employment was secondary livelihood activity (46.67%) while; collection of forest produce is tertiary livelihood activity of the tribal in Palghar. Similar Findings was reported by (Mohammad Ajaz-ul-Islam, *et al.*, 2013) [1].

Table 4: Distribution of the tribal households according to their livelihood pattern

Sr. No	Type of livelihood	Source of livelihood (N=60)		
		Primary	Secondary	Tertiary
a)	Farming	39 (65.00)	21 (35.00)	00 (0.00)
I.	Crop production			
i.	Rice	39 (65.00)	21 (35.00)	00 (0.00)
ii.	Finger millet	24 (40.00)	11 (18.33)	00 (0.00)
iii.	Proso millet (Vari)	18 (30.00)	9 (15.00)	00 (0.00)
iv.	Pulses	21 (35.00)	9 (15.00)	00 (0.00)
II.	Horticulture			
i.	Kitchen gardening	00 (0.00)	32 (53.33)	00 (0.00)
ii.	Mango/cashew	00 (0.00)	12 (20.00)	00 (0.00)
III.	Animal husbandry			
i.	Cow-bullock	29 (48.33)	00 (0.00)	00 (0.00)
ii.	Goat	00 (0.00)	4 (6.67)	00 (0.00)
iii.	Backyard poultry	00 (0.00)	44 (73.33)	00 (0.00)
b)	Wage employment	14 (23.33)	28 (46.67)	05 (8.33)
i.	On-farm	14 (23.33)	24 (40.00)	00 (0.00)
ii.	Non-farm	12 (20.00)	18 (30.00)	05 (8.33)
c)	Forest	00 (0.00)	00 (0.00)	60 (100.00)
i.	Timber collection	00 (0.00)	00 (0.00)	60 (100.00)
ii.	Madhuca indica seed & flower collection	00 (0.00)	00 (0.00)	12 (20.00)
iii.	Honey collection	00 (0.00)	00 (0.00)	4 (6.67)
iv.	Craft making	00 (0.00)	00 (0.00)	5 (8.33)
d)	Service/business/ artisan	05 (8.33)	3 (5.00)	2 (3.34)
e)	Seasonal migration	02 (3.34)	27 (45.00)	00 (0.00)

As regards to primary livelihood, rice farming (65.00%), cultivation finger millet (40.00%), proso millet (30.00%) and pulses like horse gram, red gram, black gram (35.00%). In case of livestock, tribal possessed only *desi* cow and bullock (48.33%) and *desi* breed of backyard poultry (73.33%). Collection of timber, honey, *Madhuca indica* seed & flower collection and craft making were some activities from forest. Seasonal migration is another secondary livelihood option for tribal in Palghar.

Constraints in livelihood system

Majority of the tribal households reported that subsistence farming (96.67%), irregular wages/employment (83.33), water scarcity during *rabi* and summer (80.00%), lack of skill about agribusiness enterprises (76.67%) and lack of knowledge regarding improved agricultural technologies (75.00%).

Table 5: Distribution of the tribal households according to their constraints in livelihood

Sr. No	Particulars	Frequency (N=60)	Percentage
1.	Irregular wages/employment	50	83.33
2.	Subsistence farming	58	96.67
3.	Water scarcity during Rabi and Summer	48	80.00
4.	Less livelihood options	40	66.67
5.	Meagre access to Government programs/subsidies	35	58.33
6.	Lack of knowledge regarding improved agricultural technologies	45	75.00
7.	Lack of skill about agribusiness enterprises	46	76.67

Table 6: Distribution of the tribal households according to needs to improve their livelihood

Sr. No	Particulars	Frequency	Percentage
1.	Sustainable employment income and generation through agribusiness enterprises	50	83.33
2.	Capacity building of tribal families on agribusiness enterprises	48	80.00
3.	Government may take water conservation initiatives	40	66.67
4.	Create awareness on different governmental schemes	38	63.33
5.	Crop diversification through cashew	51	85.00

Livelihood priority of tribal

Data depicted in Table 6 indicated that sustainable employment income and generation through agribusiness enterprises (83.33%), capacity building of tribal families on agribusiness enterprises (80.00%) and crop diversification through cashew (85.00%) were urgent priorities of tribal farm families to improve their existing livelihood system.

Conclusions

The majority of tribal farm families were illiterate, smallholders, belongs to middle age group and their annual income is ranged from Rs 20,000/- to 30,000/-. Most of the tribal's were not received any sort of training. The activity profile of tribal indicates females are significantly contributing in households' task, crop and livestock management activities than the men. Inspite of this, men having more access and control over productive resources like land, immovable assets, market, extension program and subsidies. This leads to gender disparity in tribal farm families. Further, analysis of livelihood pattern tribal indicates that farming especially crop production is primary, wage employment is secondary and forest is tertiary source of livelihood. Meager percent of the tribal were engaged as a serviceman, businessman and village artisan. Subsistence rice farming, cultivating minor millets, pulses; kitchen gardening and backyard poultry are the typical options for livelihood and nutritional security. Irregular wages employment, subsistence rainfed farming, water scarcity, lack of knowledge and skill about improved agribusiness activities are the main constraints in their livelihood diversification. Generating sustainable income and employment through agribusiness enterprises and crop diversification is priority of tribal farm families in Palghar district.

Recommendations

The present study indicated that tribal families were primarily depends on subsistence farming especially rice, minor millets, pulses and irregular wage employment. This clearly indicates their pro-poor condition and insecure livelihood system. In order to improve their present livelihood systems, some actions are recommended such as the Government of Maharashtra may establish independent Agriculture College purely for Tribal in Palghar. Further Government may establish separate Research Center on Sustainable Rural Livelihood Security of Tribal. SAU may implement externally funded Research and Development projects to improve livelihood system of tribal families in Palghar. Forest is one of the important sources of livelihood for tribal; therefore, it is also recommended that concerned agencies may take serious steps towards conservation of forest.

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