Biological Forum – An International Journal **14(2): 132-136(2022)**

ISSN No. (Print): 0975-1130
ISSN No. (Online): 2249-3239

Analysis of Personal, Socio-economic Characteristics and Information Seeking Pattern of Non-Timber Forest Produce (NTFP) collectors of Jammu Region of J&K

Y.S. Bagal[1*], Rakesh Nanda[2], L.K. Sharma[3], N.S. Raina[4] and S.E.H. Rizvi[5]

[1]Ex-Ph.D. Scholar, Division of Agricultural Extension Education, SKUAST- Jammu (Jammu and Kashmir), India.
[2]Professor & Head, Division of Agricultural Extension Education, SKUAST- Jammu (Jammu and Kashmir), India.
[3]Associate Professor, Division of Agricultural Extension Education, SKUAST- Jammu (Jammu and Kashmir), India.
[4]Professor, Division of Agroforestry, SKUAST- Jammu (Jammu and Kashmir), India.
[5]Dean, Faculty of Basic Science, SKUAST- Jammu (Jammu and Kashmir), India.

(Corresponding author: Y.S. Bagal)*
(Received 19 January 2022, Accepted 24 March, 2022)
(Published by Research Trend, Website: www.researchtrend.net)

ABSTRACT: The present research study was undertaken to analyze the different socio-personal characteristics and information seeking pattern of Non- Timber Forest Produce (NTFP) collectors of Jammu Region of J&K. The present study was conducted in three forest divisions of Jammu region with 50 randomly selected NTFP collectors from each forest division thereby making a total sample of 150 respondents. Multistage random sampling technique was employed for selecting the respondents. Major findings indicate that average age of respondents was 40.58 years, average schooling years was 6.07 years, and average family size was six. Average operational land holding size was 0.55 ha and majority (86%) collectors were marginal farmers and average farming experience was 22.62 years. Only 3 percent households were solely dependent upon NTFP collection for earning their livelihood. NTFP contractors and group meetings were main source utilized by collectors for obtaining information followed by friends and relatives.

Keywords: Information, livelihood, Non- Timber Forest Produce, socio-personal characteristics.

INTRODUCTION

Forest play a vital role for the continuation of ecological, biological and environmental balance and also forest has a unique role in the socio – economic existence of the people of India (Quang, 2006). As per World Bank indicator, the total geographical area of world under forest was 39,991,336 sq km which is 30.716 percent of total geographical area. About 1.6 billon people of the world depend on forests for livelihood (FAO, 2015). India is the seventh largest country in the world though it owns 1.8% of the global forests on the 2.5% of the global land area. In India, it was reported that 706,820 sq km (23.83%) of the area is under forests (World Bank indictor, 2016). Jammu and Kashmir (J&K) state is having 20,230 sq km of the forest area which is around 20 percent of its geographical area. In Jammu region, Kashmir region and Ladakh region it was reported to be 12000 sq km, 8128 sq km and 36 sq km respectively (DES, 2013-14). The main tree species abundantly wild grown in sub tropical region with paramount NTFP importance are *Acacia catechu*, *Acacia nilotica* (L.) Wild ex Del. (*Kikar/ Ferlai*), *Aegle marmelos* L. Corr. Serr (*Bael*), *Carissa spinarum* L. (*Garna*), *Cordia dichotoma* var. wallichii (*Lasura*), *Ficus palmate* Forsk. syn. *F. virganta* roxb (*Fakhana/Fakuaara/Fakura*), *Flacourtia indica* (Burm.f.) Merr (*Kakoa*), *Ficus roxburghii* Wall (*Trimbal/ Rumbel*), *Ziziphus xylopyrus* (Retz.) Willd. (*Keth Ber*), *Ziziphus nummularia* (Burm. f.) Wight & Walk.-Arn. In intermediate zone *Pinus roxburghii* Roxb.ex Lamb., olive, *Pyrus pashia* Buch.-Ham. ex D. Don etc are found. The temperate region comprises of *Cedrus deodara*, *Juglans regia*, *Pinus gerardiana* etc are of crucial economic importance from NTFP point of view (Slathia and Paul 2012). Some important non-timber forest products (NTFP) available in J&K are *Saussuria costus* (Falc) Lipsch (Kuth), *Berberis lyceum* Royle (Rasount), *Viola canescence* (Bunafsha), wild apriot, *Dioscorea deltoidea* (Kins), *Aloe vera Tourn.* Ex Linn.(Aloe), *Morchella esculenta* L. (Gucchi) etc. The people living in the vicinity of the forest collect the NFTPs for their livelihood sustainability as an off- farm income for them. It has already been reported in different studies that characteristics of farming community play a crucial role in adoption of different recommended production technologies. It has already been reported in different studies that gender, age, education level, social participation, farm implement possession, land holding, type of family, marital status (Minj and Quli 2000; McElwee 2008; Rodrigez, 2007; Bullock *et al*., 2003; Raufu *et al.*, 2012; Sharma, 2015) significantly affect the farmers' decision to go foe

collection of NTFPs. Keeping this point of view the present study entitled "Analysis of personal, socio-economic characteristics and information seeking pattern of non- timber forest produce (NTFP) collectors of Jammu Region of J&K" was undertaken.

METHODOLOGY

The present study was conducted in Jammu region. Multistage sampling plan was followed for drawl of ultimate sampling units. The East circle from Jammu region was purposively selected as it covers all the three agro- climatic zones namely Subtropical, Intermediate and Temperate, thus it represents the whole Jammu division. East forest circle comprises of seven forest divisions, out of these three forest divisions; Basholi, Ramnagar and Udhampur were selected by employing random selection procedure without replacement. From each randomly selected forest division, one forest range having maximum NTFP availability were selected. Thus Basantgarh, Dudu and Bani forest ranges from Ramnagar, Udhampur and Basholi forest divisions respectively. From Basantgarh and Dudu forest ranges one forest block each having maximum NTFP collection were selected. Whereas from Bani forest range, firstly one forest block was selected but due to non- availability of total ultimate sampling units, second ranked forest bock was also selected for data collection. The collectors and non collectors were the ultimate sampling units. The available collectors were contacted with the snow ball sampling procedure, from the each selected beat 50 collectors were selected, thereby making a total sample size of 150 collectors. Data were collected from the sampled respondent on the pre-tested interview schedule by contacting personally on their fields or at their homes. Analysis of collected data was performed using SPSS 16.0 (statistical package for social sciences) software.

RESULTS AND DISCUSSION

The data presented in the Table 1 reveals that the overall average age in all the three forest divisions was 40.58 years (±12.14). Majority of collectors (49%) belong to middle age group (36-54 years) followed by 41 percent (18-36 years) young age group and 10 percent (54-86 years) old age group. This was supported by the results of Shivaprasad (2016) who also reported that majority (78%) of the NTFP collectors belong to the age group of 30-50 years. Similar results were reported by McElwee (2008) who found that the elderly people are less likely to collect NTFPs from the forest, hence they rely more on their agricultural farms because they may not have the strength to carry out forest-related activities, as it involves a body challenging trek to the upper reaches of the mountains, where NTFPs are mostly found.The overall average farming experience of collectors in all the three forest divisions was 22.62 years (±11.38). The overall average NTFP collection experience of collectors in all the three forest divisions was 17.19 years (±7.53). Dutt and Chole (2002) also reported similar results in their study. Data presented in Table 1 regarding type of house show that overall 75 percent of collectors had kacha house followed by 25 percent which had semi- kacha house while none of them had pacca house 67 percent of collectors had kisan credit card and 95 percent had MGNERGA card. With regards to ration card, 71 percent of collectors had PHH ration card while 29 percent had NPHH ration card. Overall 97 percent of the collectors had toilets in their homes. With regards to telephone connectivity, overall 97 percent of the NTFP collectors had mobile connectivity out of which 13 percent of them had smartphones.

Table 1: Descriptive statistics regarding socio personal status of the respondent.

Parameter	Ramnagar (n= 50)	Basohli (n= 50)	Udhampur (n= 50)	Overall (n= 150)
Mean age (years)	38.19±10.36	40.66±7.82	42.96±16.37	40.58±12.14
Age group(% farmers)				
Young (18-36 years)	48	30	46	41
Middle (36-54 years)	44	68	34	49
Old (54-86 years)	8	2	20	10
Average farming experience (years)	21.76±9.80	22.28±8.86	23.82±14.72	22.62±11.38
Average NTFP collection experience	17.60±9.29	17.26±5.73	16.7±7.26	17.19±7.53
Type of house				
Kacha	84	76	66	75
Semi-Pacca	16	24	34	25
Pacca	0	0	0	0
Kisan Credit Card holders	74	98	30	67
MGNERGA card holders	94	100	90	95
Soil Health Card holders	4	0	0	1
Toilet	92	98	100	97
Ration Card holders				
PHH	82	68	62	71
NPHH	18	32	38	29
Excluded	0	0	0	0
Telephone connectivity (% farmers)				
Mobile connection	100	98	94	97
Smartphone	8	8	24	13

Table 2: Educational status of respondents' household.

Parameter	Ramnagar (n= 50)	Basohli (n= 50)	Udhampur (n= 50)	Total (n= 150)
Mean education	6.94±4.25	6.48±1.94	4.80±4.00	6.07±3.66
Education level (% respondents)				
Illiterate	22	0	34	19
Below primary	0	10	10	7
Primary	12	60	18	30
Middle	34	18	26	26
Matriculation	16	10	10	12
10+2	14	2	0	5
Graduation and above	2	0	1	1
Literacy rate (percent)	79.20	66.32	70.43	71.72
Literacy Index	2.35 (Primary)	1.83 (Primary)	1.82 (Primary)	1.89(Primary)

The overall percentage of the education of collectors in three forest divisions was 30 percent primary, 26 percent middle, 12 percent were matric, 7 percent were below primary, 5 percent 10+2 level and only one percent were graduate and above. Whereas 19 percent of the respondents were illiterate. The average formal education of collectors was highest in Ramnagar forest division 6.94 years (±4.2) followed by 6.48 years (±1.94) in Basohli and lowest was in Udhampur 4.80 years (±4.00). A close look at Table 2 indicates that the highest literacy rate of collectors' household was found in Ramnagar forest division (79.20%) followed by Udhampur (70.43%) and least in Basohli (66.32%). The overall literacy rate of collectors was 71.72 per cent. Literacy index of household of the collectors in Ramnagar forest division was found to be 2.35, followed by 1.83 in Basohli and 1.82 in Udhampur. Literacy index of overall household of the collectors was 1.89.

It was categorized into nuclear and joint family, in case of collectors in Ramnagar forest division 78 percent respondents had nuclear families followed by 64 percent in Udhampur and 38 percent in Basohli district. Overall 60 percent of the collectors lived in nuclear family, where rest lived in joint family. With regard to family size, the average family size of collectors in Basohli was 6.24 (±2.03) followed by 6 (±2.20) in Udhampur and 5.82 (±1.91) in Ramnagar forest division. The overall average family size of collectors in all the three forest divisions was 6.02 (±2.03). In case of collectors the number of females per thousand of males was 840, 782 and 731 in Udhampur, Basohli and Ramnagar forest divisions respectively. Overall for collectors there were 784 numbers of females per thousand of males.

Table 3: Family composition of respondent's household.

Parameter	Ramnagar (n= 50)	Basohli (n= 50)	Udhampur (n= 50)	Total (n= 150)
Family type (% households)				
Joint	22	62	36	40
Nuclear	78	38	64	60
Average family size (No.)	5.82±1.91	6.24±2.03	6±2.20	6.02±2.03
Family Size (%respondents)				
Small family (2-6 members)	58	38	46	47
Medium family (7-9 members)	34	48	42	41
Large family (10-13 members)	8	14	12	12
Sex Ratio	731	782	840	784

Table 4: Distribution of respondents on the basis of their farm size.

Parameter	Ramnagar (n= 50)	Basohli (n= 50)	Udhampur (n= 50)	Total (n= 150)
Average operational farm size (ha)	0.65±0.84	0.44±0.18	0.55±0.34	0.55±0.54
Owned	0.65±0.84	0.44±0.18	0.55±0.34	0.55±0.54
Leased in	0	0	0	0
Leased out	0	0	0	0
Categorization of farm size (No.)				
Marginal (<1 ha)	82	100	78	86
Small (1-2 ha)	14	0	22	12
Semi- medium (2-4 ha)	2	0	0	1
Medium (4-10 ha)	2	0	0	1
Large (>10 ha)	0	0	0	0
Average irrigated area (ha)	0	0	0.06±0.13	0.02±0.08
Average unirrigated area (ha)	0.65±0.84	0.44±0.18	0.49±0.31	0.52±0.53

Data given in Table 4 revealed that in case of collectors average operational land holding in Ramnagar, Basohli and Udhampur forest divisions was 0.65, 0.44 and 0.55 hectares including unirrigated land holdings 0.65, 0.44 and 0.49 hectares respectively. Overall average operational land holding of collectors in the study area was 0.55 hectare with irrigated area of 0.02 hectare. In Ramnagar forest division 82 percent collectors were in the category of marginal farmers (<1ha) followed by 14percent small farmers (1-2ha), 12 percent semi-medium farmers (2-4ha) and two percent medium farmers (4-10ha). In Basohli forest division all the collectors were in the category of marginal farmers (<1ha). In Udhampur forest division 78per centcollectors were in the category of marginal farmers (<1ha) followed by 22 percent small farmers (1-2ha). With regards to overall collectors, 86 per centcollectors were in the category of marginal farmers (<1ha) followed by 12 percent small farmers (1-2ha) and equal percent (1%) fall in semi-medium (2-4ha) and medium category (4-10ha).

The results presented in Table 5 revealed that, total family members size was 903, including 66 percent adult members and 38 percent were earning members with dependency ratio of 1:2.96. Out of 150 sampled households of collectors only three percent were solely dependent on NTFP income. Collector households having other sources of income including NTFP and Agriculture were 97 percent which includes labour (64%), private job (9%), labour + private job (9%), shop (6%), labour + government service (2%) and any other (3%).

Table 5: Work force status of respondents' household.

Parameter	Ramnagar (n= 50)	Basohli (n= 50)	Udhampur (n= 50)	Total (n= 150)
Total family members	291	312	300	903
Total number of adults (%)	62	71	65	66
Total number of earning members(off- farm activities) (%)	41	37	37	38
Dependency ratio(off- farm activities) (%)	1:2.93	1:2.85	1:3.11	1:2.96
Households solely dependent on NTFP income (%)	2	0	6	3
Households solely dependent on faming (%)	0	0	0	0
Households having other sources of income including NTFP and Agriculture (%)	98	100	94	97
Labour	66	58	68	64
Private	6	12	8	9
Shop	8	2	8	6
Labour+ Government service	4	0	2	2
Labour+ Shop	6	4	2	4
Labour+ Private	2	20	6	9
Government service	0	0	0	0
Any other	6	4	0	3

Table 6: Source of information of NTFP collectors.

Source of information[#]	Ramnagar (n= 50)	Basohli (n= 50)	Udhampur (n= 50)	Total (n= 150)
NGO	0	0	0	0
NTFP contractor	47 (94)	50 (100)	50 (100)	147 (98)
Input dealer	30 (60)	47 (94)	49 (98)	126 (84)
Progressive farmer	21 (42)	44 (88)	29 (58)	94 (63)
Friends/ relatives	42 (84)	50 (100)	41 (82)	133 (89)
Radio	0	0	1 (2)	1 (1)
Television	0	4 (8)	0	4 (3)
Newspaper	0	0	1 (2)	1 (1)
Training	2 (4)	0	1 (2)	3 (2)
Group meeting	48 (96)	50 (100)	49 (98)	147 (98)
Field visits	0	0	0	0
Demonstration	2 (4)	0	4 (8)	6 (4)
Kisanmela	11 (22)	2 (4)	12 (24)	25 (17)
Kissan Call Center	0	0	0	0
Level of Source of utilization*				
Low utilization (0-5 sources)	2 (4)	3 (6)	0	5 (3)
Medium utilization (6-7 sources)	45 (90)	47 (94)	49 (98)	141 (94)
High utilization (above 7 sources)	3 (6)	0	1 (1)	4 (3)

[#]*Multiple responses*

**Categorization was done by Mean±Standard deviation*

Data presented in Table 6 reflected the different source of information utilized by collectors and it was found that none of the collector was aware about NGOs. 98 percent of the respondents get information from NTFP contractors, while 84 percent get information from input dealers, 63 percent from progressive farmers, 89

percent from friends/ relatives, 98 from group meetings and 17 percent from kisanmela. Likewise for television, only 3 percent were getting agriculture/ NTFP related information. About trainings, only two percent were attended any training ever. None of the collectors were aware about Kissan Call Center.

Categorization was done on the basis of level of source of utilization and it was found that 94 percent of collectors were under medium source utilization category (6-7 sources) and equal percent (3%) were fall under low (0-5 sources) and more utilization (above 7 sources) categories.

CONCLUSION

It is concluded on the basis of the findings that majority of the NTFP collectors were belongs to young age, had kaccha house, had priority household ration card. NTFP collectors studied upto sixth standard, about one- fifth of the respondents in both the categories were illiterate. Also majority of the households were lived in nuclear type of families. About one- tenth of the collectors were solely dependent on NTFP income. More than two-third of the collectors were labours.

REFERENCES

Bullock, R., Mithöfer, D. & Vihemäki, H. (2003). Sustainable Agricultural Intensification: The Role of Cardamom Agroforestry in the East Usambaras, Tanzania: Invited paper presented at the 4th International Conference of the African Association of Agricultural Economists, September 22-25, Hammamet, Tunisia.

DES (2013-14). Statistical Digest of Jammu and Kashmir.Directorate of Economics and Statistics, Government of Jammu and Kashmir.

Food and Agriculture Organisation (FAO) (2015). State of the World's Forests. Food and Agriculture Organization. Rome.

McElwee, P. D. (2008). Forest environmental income in Vietnam: household socioeconomic factors influencing forest use. *Environment Conservation, 35*: 147–159.

Minj, A. V. & Quali, S. M. S. (2000). Impact of agro forestry on socioeconomic status of respondents. *Indian Forester*, *126*(7): 788-791.

Quang (2006). Commercial collection of NTFPs and household living in or near the forests, Science Direct.

Raufu, M. O., Akinniran, T. N., Olawuyi, S. O. & Akinpelu, M. O. (2012). Economic Analysis of Rural Women Income from Non-Timber Forest Products in Ife South Local Government Area of Osun State, Nigeria. *Global Journal of Science Frontier Research Agriculture and Biology*, *12*(1): 23-32.

Rodrigez, F. Z. (2007). Socio - economic determinants of Non-Timber Forest Products Collection. A case study among indigenous people in Karnataka, India. Universitat Autònoma de Barcelona, Spain.

Sharma, K. (2015). M.Sc. Thesis. Non-Timber Forest Products and Livelihood Security: An Economic Study of High Hill Temperate Wet Zone Households of Himachal Pradesh. College of Forestry Dr Yashwant Singh Parmar University of Horticulture and Forestry, Nauni Solan - 173 230 (H.P.), India.

Shivaprasad, T. M. (2016). Ph.D. Thesis. Emerging Trends in Collection and Marketing of Minor Forest Produce in Karnataka. A Study of Large Sized Adivasi Multi-Purpose Co-Operative Societies (Lamps) in Mysore and Chamarajanagara Districts, Institute of Development Studies University of Mysore, Manasagangothri, Mysore – 570 006, Karnataka, India.

Slathia, P. S. and Paul, N. (2012). Traditional Practices for Sustainable Livelihood in Kandi Belt of Jammu. *Indian Journal of Traditional Knowledge, 11*(3): 548-552.

How to cite this article: Y.S. Bagal, Rakesh Nanda, L.K. Sharma, N.S. Raina and S.E.H. Rizvi (2022). Analysis of Personal, Socio-economic Characteristics and Information Seeking Pattern of Non- Timber Forest Produce (NTFP) collectors of Jammu Region of J&K. *Biological Forum – An International Journal, 14*(2): 132-136.