

ANALYSIS OF LIVELIHOOD SECURITY OF TRIBAL FARMERS**Rutika U. Chuadhari¹, N. M. Chauhan² and K. L. Chaudhary³**

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ABSTRACT

Agriculture is the backbone of India and it has traditionally been viewed as a source of subsistence living and livelihood by growing food crops like rice, maize, wheat, millets and pulses etc. 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. The present investigation was carried out in six purposively selected talukas of Tapi district of Gujarat State. From each selected taluka, two villages were selected randomly and from each village, 10 tribal farmers were selected randomly, making the total sample of 120 respondents. An interview schedule was developed in accordance with the objectives of the study. The data were collected through personal interview and were classified, tabulated and analyzed. The study concluded that around half of the respondents were having low level of livelihood security. Except for the Livestock possession variable, respondents' livelihood security was found to be significant.

Keywords: livelihood security, tribal farmers, profile, socio-economic status

INTRODUCTION

Agriculture is the backbone of India and it has traditionally been viewed as a source of subsistence livelihood by growing food crops like rice, maize, wheat, millets and pulses etc. Livelihood, comprises the capabilities, assets (stores, resources, claims, and access). Livelihood is an outcome of how and why people organize to transform the environment to meet their needs through technology, labour, power, knowledge, and social relations. Conceptually "livelihood" means, people make an attempt to meet their various consumption and economic necessities, cope with uncertainties and respond to new opportunities (Sunil and Vinaya, 2016). The sustainable livelihood synthesizes all human activities including five core assets: physical, natural capital, financial capital, human capital and social capital. Tribal population is the aboriginal inhabitants of our state who have been living a simple life based on natural environment and have cultural patterns congenial to their physical and social environment. 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. 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. Livelihood security provides reflection of the social and economic well being of the farmers. Thus, the livelihood security analysis of tribal farmers is very essential to understand their situation and form required strategies for the development.

OBJECTIVES

- (1) Profile of tribal farmers of Tapi district
- (2) Livelihood security of tribal farmers
- (3) Relationship between profile of the tribal farmers and their livelihood security

METHODOLOGY

The study was conducted under *ex-post-facto* research design. The simple random sampling method was used. The present investigation was carried out in six purposively selected talukas of Tapi district of Gujarat State viz; Vyara, Dolvan, Valod, Songadh, Uchchhal and Nizar. From each selected taluka, two villages were selected randomly and

from each village, 10 tribal farmers were selected randomly, making the total sample of 120 respondents. An interview schedule was developed in accordance with the objectives of the study. The data were collected through personal interview and were classified, tabulated and analyzed. The statistical measures such as percentage, mean score and coefficient of correlation were used.

RESULTS AND DISCUSSION

Profile of the tribal farmers

Table 1 indicate that nearly half (52.50 %) of the tribal farmers belonged to middle age group, followed by

24.17 and 23.33 per cent of them who belonged to old age and young age group, respectively. In general, it is observed that the people from middle age group have to shoulder more family responsibility than the younger and older ones. This might be the reason why the respondents in middle age group were more in number. This finding is in line with the findings reported by Sunani and Mishra (2019). The majority (68.33 %) of the tribal farmers were literate, while 31.67 per cent of them were illiterate. Among those who were literate, 23.33 per cent of the tribal farmers had education up to primary level followed by secondary (20.00 %) and higher secondary level (15.83 %) Only 09.17 per cent of them were found to have graduate and above level of education.

Table 1: Distribution of the respondents according to their profile characteristics

(n=120)

Sr. No.	Categories	Frequency	Percent
1	Age		
a	Young (Up to 35)	28	23.33
b	Middle (36 to 50)	63	52.50
c	Old (Above 50)	29	24.17
2	Education		
a	Illiterate	38	31.67
b	Primary education (up to 8 th standard)	28	23.33
c	Secondary education (9 th & 10 th standard)	24	20.00
d	Higher secondary education (11 th & 12 th standard)	19	15.83
e	Graduate and Above	11	09.17
f	Size of family		
g	Small (up to 4 members)	34	28.33
h	Medium (from 5 to 8 members)	66	55.00
i	Large (more than 8 members)	20	16.67
3	Size of landholding		
a	Marginal farmer (up to 1.0 ha)	85	70.83
b	Small farmer (1.01 to 2.0 ha)	30	25.00
c	Medium farmer (2.01 to 4.0 ha)	05	04.17
d	Large farmer (above 4.00 ha)	00	00.00
4	Farming system practiced		
a	Agriculture + Horticulture	14	11.67
b	Agriculture + Animal husbandry	16	13.13
c	Agriculture + Horticulture + Animal husbandry	90	75.00
d	Others	00	00.00
5	Livestock possession		
a	No animal	14	11.67
b	Up to 2 animals	33	27.50
c	3 to 5 animals	66	55.00
d	More than 5 animals	07	05.83
6	Annual income		
a	Very low (Up to ₹ 50,000)	18	15.00
b	Low (₹ 50,001 to 1,00,000)	43	35.83
c	Medium (₹ 1,00,001 to 1,50,000)	38	31.67
d	High (₹ 1,50,001 to 2,00,000)	14	11.67
e	Very high (Above ₹ 2,00,000)	07	05.83
7	Social participation		
a	No membership	15	12.50

Sr. No.	Categories	Frequency	Percent
b	Membership in one organization	102	85.00
c	Membership in more than one organization	03	02.50
d	Membership along with position in organization	00	00.00
8	Mass media utilization		
1	Very low (Up to 11.20 score)	57	47.50
2	Low (11.21 to 14.41 score)	43	35.84
3	Medium (14.42 to 17.62 score)	19	15.83
4	High (17.63 to 20.83 score)	01	00.83
5	Very high (Above 20.83 score)	00	00.00
9	Economic motivation		
1	Very low (Up to 14.40 score)	02	01.67
2	Low (14.41 to 20.80 score)	05	04.17
3	Medium (20.81 to 27.20 score)	28	23.33
4	High (27.21 to 33.60 score)	58	48.33
5	Very high (Above 33.60 score)	27	22.50

More than half (55.00 %) of the tribal farmers belonged to medium sized family, whereas 28.33 and 16.67 per cent of them were from small and large size family, respectively. The probable reason behind such trend of result is less awareness among tribal people about family planning and hence more number of children per family as well as prevalence of joint family system in rural area. This finding is in line with the findings reported by Thorat and Patel (2022). The majority (70.83 %) of the tribal farmers were marginal, followed by 25.00 per cent who were small farmers. Only 04.17 per cent of them were medium farmers, whereas none of them had large size of land holding. This might be due to inherited division of land from generation to generation. This finding is in similar with Patel *et al.* (2020). The majority (75.00 %) of the tribal farmers practiced agriculture + horticulture+ animal husbandry as a farming system, while agriculture + animal husbandry as a farming system was practiced by 13.13 per cent and agriculture + horticulture was followed by 11.67 per cent of the tribal farmers.

The data presented in Table 1 make it clear that majority (55.00 %) of the tribal farmers possessed 3 to 5 animals, followed by 27.50 per cent of them who possessed up to 2 animals. The tribal farmers who had no animals were 11.67 per cent; whereas only 05.83 per cent of them possessed more than 5 animals. It might be due to insufficient to sustain the livelihood Slightly more than one-third (35.83 %) of the tribal farmers had low level of annual income, followed by 31.67, 15.00 and 11.67 per cent of them who had medium and high level of annual income, respectively. Only 05.83 per cent of the respondents had very high level of annual income. The great majority (85.00 %) of the tribal farmers

had membership in one organization, followed by 12.50 per cent of them who had no membership in any organization. Only 02.50 per cent of the tribal farmers had membership in more than one organization, while none of them was found to have membership along with position in organization. It was because of the fact that all the tribal farmers who had animals also for additional income were the members of milk co-operative society existing in their villages. However, their social participation in other organizations (except milk co-operative society) was rare. This finding is more or less in conformity with that reported by Pradhan (2019), Jhamb (2021). Less than half (47.50 %) of the tribal farmers had very low level of mass media utilization, followed by 35.84 and 15.83 per cent of them had low and medium level of mass media utilization, respectively. Only, 00.83 per cent of the them had high level of mass media utilization. This was due to that lack of awareness. And nearly half (48.33 %) of the tribal farmers had high level of economic motivation, followed by 23.33, 22.50 and 04.17 per cent of them who had medium, very high and low level of economic motivation, respectively. Only 01.67 per cent of them had very low level of economic motivation.

Livelihood security of the tribal farmers

The perusal of data depicted in Table 2 make it clear that three-fourth (75.00 %) of the tribal farmers had low level of asset, followed by 23.33 and 01.67 per cent of them who had medium and very low level of asset, respectively. None of the respondents was found under the category of high and very high level of asset.

Table 2 : Distribution of the respondents according to their livelihood security

(n= 120)

Sr. No.	Categories	Frequency	Percentage
1	Assets		
a	Very low (Up to 8.00 scores)	02	01.67
b	Low (8.01 to 11.00 scores)	90	75.00
v	Medium (11.01 to 14.00 scores)	28	23.33
d	High (14.01 to 17.00 scores)	00	00.00
e	Very high (Above 17.00 scores)	00	00.00
2	Living amenities		
a	Very low (Up to 11.20 scores)	51	42.50
b	Low (11.21 to 15.40 scores)	62	51.67
c	Medium (15.41 to 19.60 scores)	07	05.83
d	High (19.61 to 23.80 scores)	00	00.00
e	Very high (Above 23.80 scores)	00	00.00
3	Economic efficiency		
a	Very low (Up to 8.00 scores)	68	56.67
b	Low (8.01 to 11.00 scores)	43	35.83
c	Medium (11.01 to 14.00 scores)	09	07.50
d	High (14.01 to 17.00 scores)	00	00.00
e	Very high (Above 17.00 scores)	00	00.00
4	Ecological security		
a	Very low (Up to 4.80 scores)	00	00.00
b	Low (4.81 to 6.60 scores)	39	32.50
c	Medium (6.61 to 8.40 scores)	63	52.50
d	High (8.41 to 10.20 scores)	16	13.33
e	Very high (Above 10.20 scores)	02	01.67
5	Social equitability		
a	Very low (Up to 8.00 scores)	32	26.67
b	Low (8.01 to 11.00 scores)	73	60.83
c	Medium (11.01 to 14.00 scores)	14	11.67
d	High (14.01 to 17.00 scores)	01	00.83
e	Very high (Above 17.00 scores)	00	00.00
6	Transformation over a period of time		
a	Very low (Up to 8.00 scores)	94	78.34
b	Low (8.01 to 11.00 scores)	22	18.33
c	Medium (11.01 to 14.00 scores)	04	03.33
d	High (14.01 to 17.00 scores)	00	00.00
e	Very high (Above 17.00 scores)	00	00.00
7	Coping strategies against stress		
a	Very low (Up to 9.60 scores)	71	59.17
b	Low (9.61 to 13.20 scores)	44	36.67
c	Medium (13.21 to 16.80 scores)	05	04.16
d	High (16.81 to 20.40 scores)	00	00.00
e	Very high (Above 20.40 scores)	00	00.00

Sr. No.	Categories	Frequency	Percentage
8	Employment status		
a	Very low (Up to 19.20 scores)	11	09.17
b	Low (19.21 to 26.40 scores)	98	81.67
c	Medium (26.41 to 33.60 scores)	11	09.17
d	High (33.61 to 40.80 scores)	00	00.00
e	Very high (Above 40.80 scores)	00	00.00
9	Overall livelihood security index		
a	Very low (25 to 40 scores)	18	15.00
b	Low (41 to 55 scores)	93	77.50
c	Medium (56 to 70 scores)	09	07.50
d	High (71 to 85 scores)	00	00.00
e	Very high (86 to 100 scores)	00	00.00

Slightly more than half (51.67 %) of the tribal farmers had low level of living amenities, while 42.50 and 5.83 per cent of them had very low and medium level of living amenities, respectively. None of the tribal farmers was observed to have high and very high level of living amenities. Marginal and small size of land holding and lower level of annual income of the tribal farmers might be the influential factors for their low level of asset. The majority (56.67 %) of the tribal farmers had very low level of economic efficiency, whereas 35.83 and 07.50 per cent of them had low and medium level of economic efficiency, respectively. None of the respondents was found in the category of high and very high level of economic efficiency. Slightly more than half (52.50 %) of the tribal farmers had medium level of ecological security, followed by 32.50 and 13.33 per cent of them who felt low and high level of ecological security, respectively. Only 01.67 per cent of the respondents had very high level of ecological security, while none of them fell under very low level of ecological security. As opined by the respondents, low to medium rain fall leading to water shortage for agriculture and allied household purposes and also diminishing forest resources were the reasons for the above finding.

The data in above Table presented that, majority (60.83 %) of the respondents had low level of social equitability, while 26.67 and 11.67 per cent of them had very low and medium level of social equitability, respectively. Only, 00.83 per cent of the respondents had high level of social equitability, whereas none of them had very high level of social equitability. Lack of community support, lack of sufficient recognition from the society and poor relations between the tribal farmers and other sections of the society might be the reasons for such finding. The majority (78.34 %) of the tribal farmers perceived very low level of transformation over a period of time, followed by 18.33 and 03.33 per cent of them who perceived low and medium level

of transformation over a period of time, respectively. None of them perceived high to very high degree of transformation over a period of time. Almost three-fifth (59.17 %) of the tribal farmers had very low level of coping strategies against stress, while 36.67 and 04.16 per cent of them had low and medium level of coping strategies against stress, respectively. Under high and very high category of coping strategies against stress, none of the respondents was found. This might be because of lack or low level of their saving due to lower level of annual income, lack or low level of other alternative resources to meet their requirement or their inability to create income generating resources to thrive under stressful situation. The low level of employment status was perceived by majority (81.67 %) of the tribal farmers, whereas equal number of tribal farmers (09.17 %) perceived very low and medium level of employment status. None of the respondents was found under the category of high and very high level of employment status. And the majority (77.50 %) of the tribal farmers had low level of livelihood security, followed by 15.00 and 07.50 per cent of them had low and medium level of livelihood security.

Relationship between profile of the tribal farmers and their livelihood security

Correlation analysis was done in order to find out the relationship between various factors with livelihood security. The independent variables viz. education, land holding, annual income, mass media utilization and economic motivation of the tribal farmers had a positive and highly significant relationship with their livelihood security, livestock possession of tribal farmers had positive and significant relationship with their livelihood security. That means, by increasing the values of all these factors, livelihood security values of the farmers will also increase and vice-versa. Further, the variables like age, family size, farming system practiced and social participation

Table 3: Relationship between the profile of the tribal farmers and their livelihood security (n=120)

Sr. No.	Variables	Correlation coefficient
X ₁	Age	0.090NS
X ₂	Education	0.585**
X ₃	Size of family	0.144NS
X ₄	Size of land holding	0.637**
X ₅	Livestock possession	0.553*
X ₆	Farming system practiced	0.094NS
X ₇	Annual income	0.637**
X ₈	Social participation	0.004NS
X ₉	Mass media utilization	0.493**
X ₁₀	Economic motivation	0.507**

**=Highly significant *= Significant NS=Non significant

could not establish significant relationship with their livelihood security. This finding is supported by the findings of Prashanthi and Reddy (2022) and Chinchmalatpure, U. R. (2022).

CONCLUSION

Great majority of the tribal farmers had membership in one organization, more than half of the tribal farmers belonged to middle age group, medium size of family, possessed 3 to 5 animals, nearly half of the tribal farmers had high level of economic motivation, less than half of the tribal farmers had very low level of mass media utilization, three-fourth of the tribal farmers practiced agriculture + horticulture+ animal husbandry as a farming system, less than three-fourth of the tribal farmers were marginal, slightly more than one-third of the tribal farmers had low level of annual income, slightly less than one-third of the tribal farmers were illiterate. It can be concluded from the study that around half of the respondents were having low level of livelihood security. Except for the Livestock possession variable, respondents' livelihood security was found to be

significant. The results of the study are useful in knowing the characteristics of the tribal farmers and their relationship with livelihood security; and thereby help to serve as guideline for policy makers, planners and extension workers to plan and implement tribal development efforts. Thus, to form better extension strategies for tribal farmers and to understand the focus area of their welfare.

CONFLICT OF INTEREST

No conflict of interest among researchers.

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