

International Journal of Advanced Biochemistry Research



ISSN Print: 2617-4693
ISSN Online: 2617-4707
NAAS Rating (2026): 5.29
IJABR 2026; SP-10(4): 966-969
www.biochemjournal.com
Received: 25-01-2026
Accepted: 28-02-2026

Sanchita Roy
Research Scholar, Department
of Agriculture, Maharaja
Agrasen Himalayan Garhwal
University, Pauri Garhwal,
Uttarakhand, India

Dr. Rishi Kumar Dwivedi
Assistant Professor,
Department of Agriculture,
Maharaja Agrasen Himalayan
Garhwal University, Pauri
Garhwal, Uttarakhand, India

Corresponding Author:
Sanchita Roy
Research Scholar, Department
of Agriculture, Maharaja
Agrasen Himalayan Garhwal
University, Pauri Garhwal,
Uttarakhand, India

Livelihood dynamics of shifting cultivators: A study on tribal farmers of Tripura

Sanchita Roy and Rishi Kumar Dwivedi

DOI: <https://www.doi.org/10.33545/26174693.2026.v10.i4Sl.8248>

Abstract

North-East India—fondly known as the land of seven sisters stands as a tapestry of magnificent landscapes, vibrant cultures, and nearly nineteen tribal communities, for whom the age-old practice of Jhum cultivation forms an inseparable part of identity, tradition, and survival. In Tripura, particularly among the Reang tribe, shifting cultivation is still regarded as a dignified and self-sustaining livelihood. Beyond its economic role, Jhum nurtures the conservation of precious indigenous landraces, contributing quietly yet significantly to global biodiversity and crop improvement efforts. Yet, this study reveals that beneath this cultural richness lies a fragile livelihood fabric: despite strong social bonds, physical resilience, and communal resource sharing, most Jhumias continue to struggle with low to moderate livelihood security. Inadequate natural and financial assets, weak infrastructure, diminishing forest-based income, and productivity losses caused by small, fragmented Jhum cycles collectively undermine their socio-economic well-being. With 39.3% of households falling in the poor livelihood category, the findings underscore an urgent need for strengthened resource support, diversified income pathways, and sensitive institutional interventions to ensure a more secure and sustainable future for the tribal communities whose lives are intricately woven with Jhum.

Keywords: Jhum cultivation, Tripura, tribal livelihoods status, socio-economic well-being, natural and financial resources

Introduction

Tripura's mountainous terrain, almost 19 tribes coexist, In mountain areas in particular, inaccessible terrain often leads to the development of diverse tribes and jhum cultivation is engrained in both their values and tradition. Cultural diversity is strongly linked with the genetic diversity of crop plants. Mountain dwellers help maintaining the traditional form of agriculture system. Jhum cultivation forms an integral part of the livelihood system of tribal communities in Tripura, where mountainous terrain and cultural diversity have shaped traditional agricultural practices across nearly nineteen tribes (Singh, 1996) ^[15]. As a centuries-old livelihood tradition, Jhum reflects not only ecological adaptation but also deep-rooted social and cultural values that guide tribal farming systems in the region (Ramakrishnan, 1992) ^[11]. Recognized particularly among the Reang tribe, shifting cultivation continues to be viewed as a dignified, self-sufficient and economically viable practice compared to settled cultivation (Das, 2013) ^[4]. Moreover, Jhum contributes significantly to the conservation of indigenous plant varieties or landraces, which hold global importance for biodiversity and crop improvement (Padmanabhan, 2011) ^[10]. Despite this heritage, tribal livelihoods remain vulnerable due to limited access to modern resources, unstable incomes, and the environmental pressures affecting upland agriculture (Borthakur, 2007) ^[1]. Against this backdrop, the present study aims to assess the livelihood capacities of tribal farmers engaged in Jhum cultivation, evaluate their livelihood assets, and analyze the livelihood activities and coping mechanisms adopted to sustain agricultural and household needs within their resource-constrained environment (Chambers & Conway, 1992; Scoones, 1998) ^[2, 14].

Methodology

The study was done in the Gomati area in the Indian state of Tripura. The Gomati district has three subdivisions. Udaipur has three blocks, whereas Amarpur and Karbuk, each have two blocks. Two villages were selected from each of these seven blocks in the Gomati district

based on the most significant number of tribes engaged in Jhum cultivation. Ten farmers were chosen randomly from each of the fourteen designated villages, bringing the total number of responders to 140. For measuring livelihood status the respondents were classified in three categories viz. low ($< \text{Mean} - \frac{1}{2} \text{SD}$), medium ($= \text{Mean} \pm \frac{1}{2} \text{SD}$), high ($> \text{mean} + \frac{1}{2} \text{SD}$) based on the total score.

Result and Analysis

The resources, activities, and capacities that support the jhumias way of life include the size of jhum land holding, the sale of their Jhum products, their capacity to ask friends or neighbours for assistance when needed, community support, the caliber of labour accessible at the neighborhood level, the group members' abilities, their endurance for backbreaking labor, and thie utilisation of and use the public utilities. The details of the livelihood status are given below.

Resources

1. Natural Resources

Table 4 showed that 53.6% of the tribal members were satisfied with the amount of the land, and 3.6% were extremely satisfied. This is due to the fact that they had free access to additional land to raise their Jhuming; 72.9% of farmers were less contented with their livestock units and only 27.1% of them were satisfied because their livestock units required a solid framework. Since they had fewer animals, they typically kept them in the yard of their home. Only 16.4% of farmers were contented with the forests products which earned them additional revenue (timber, woods).

2. Social Resources

Majority of the jhumias (84.3%) were highly satisfied with their freedom to depend on acquaintances since everyone who practised jhum in the community lived and worked together ot without giving labour expenditures. 88.6% of jhumias were really satisfied with the community's help during crisis circumstances since they all pulled around for the mutual aid and borrow more money from the neighbor when they were in need. Merely 15.7% of jhumias were satisfied only with entitlement that resulted from membership with NTFs. Additionally, there were not many Self Help Groups (SHGs) in the tribal settlements.

3. Human Resources

Nearly (77.9%) were less satisfied with the educational level of family members, yet they were all satisfied with the quality of domestic labour. The bulk of them used to engage

in Jhuming activities, which required more hard work in mountainous slopes. Almost (72.1%) of jhumias were very contented with their physical health and ability to perform hard labour.

4. Physical Resources

The infrastructural facility is less satisfying to 52.9 percent of the jhumias. (roads, highways, power, advanced machinery etc). This could be due to the poor infrastructural facilities in the steep areas.

5. Financial Resources

Due to lower annual income and the fact that the majority of tribal members are small and marginal farmers, the majority of tribal members (72.9%) are less satisfied with their savings (72.9%) than farmers (86.4%) who have accessed to credit through various self financed projects of Self-help organization.

Activities

Only 6.4% of tribal people are extremely pleased, and 54.3% of them were contented with the profits they received from selling Jhum goods, which include both items made from forests (honey, nuts) and those made elsewhere. The majority of them were small, marginal farmers who all practised agriculture that is nearly organic, which resulted in lower productivity and lower yield/output per unit area. Hence, due to constraints from the Forest Department, 82.1% of jhumias were less satisfied with the return from timber and non timber products. 85.0% of the jhumias were less contented with the profits from weaving and needle work.

Capabilities

Cent percent of the jhumias were highly satisfied with their access to common property resources, while majority were only satisfied with their extended family rights .Again 85 percent were satisfied with the help provided by a church or temple organization during any causality in the family.

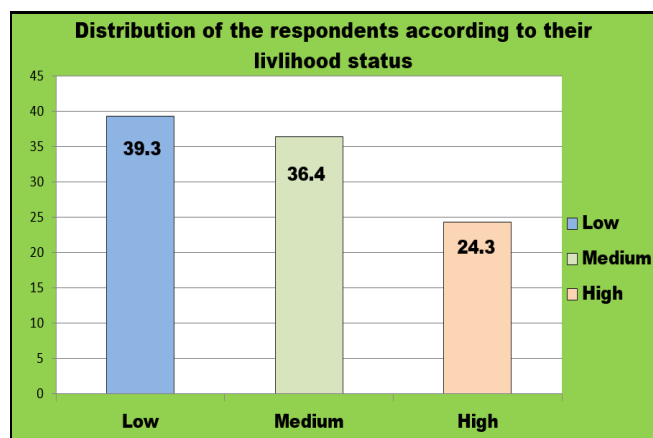
Cropping strategies from stress

Due to constraint in getting chance to work in forest department, majority of the tribe members were less satisfied to work as labour for the same. 82.14 percent of jhumias were less satisfied to prepare and sell bamboo-made goods due to a lack of bamboo and limitations from the Govt. 85% jhumias were less satisfied with the occupations like weaving and tailoring due to market constraint.

Table 4: Statistical Analysis of livelihood status of the jhumias practicing jhum cultivation.(n = 140)

Statements	Less Satisfied *F(%)	Satisfied *F(%)	Highly Satisfied *F(%)
A. Resources			
I. Natural Resources			
1. Total land mass	60(42.86)	75(53.57)	5(3.5)
2. Livestock unit (additional income)	38(27.14)	102(72.86)	0(0)
3. Forest Richness (additional income)	117(83.57)	23(16.42)	0(0)
II. Social Resources			
4. The capacity to call neighbours or friends	0(0)	22(15.72)	118(84.28)
5. Neighborhood Support (if necessary)	0(0)	16(11.42)	124(88.58)
6. Caste (Social Status)	131(93.57)	9(6.43)	0(0)
7. Benefits of group membership	118(84.29)	22(15.71)	0(0)
III. Human Resources			
8. Workforce quality (for household)	0(0)	0(0)	140(100)
9. Education of the family members	109(77.86)	31(22.14)	0(0)
10. Adoptive skill abilities of family members	8(5.71)	23(16.43)	109(77.86)
11. Fitness or general well-being	13(9.29)	26(18.57)	101(72.14)
IV. Physical Resource			
Infrastructure (road, irrigation, electricity etc.)	74(52.86)	46(32.86)	20(14.28)
V. Financial Resource			
12. Money stocks	102(72.86)	38(27.14)	0(0)
13. Credit availability (household)	19(13.7)	12(86.43)	0(0)
14. Farm Land (for growing crop)	0(0)	0(0)	140(0)
15. Individuals from the family who participate in the cultivation of jhum	74(52.85)	66(47.14)	0(0)
16. Earnings (family members in Forest Department)	0(0)	0(0)	140(100)
B. Activities	140(100)	0(0)	0(0)
17. Sufficient income (selling Jhum products)	55(39.28)	76(54.29)	9(6.43)
18. Sufficient income (selling timber and non timber products)	115(82.14)	25(17.86)	0(0)
19. Paying (Weaving , Tailoring)	119(85)	21(15)	0(0)
C. Capability			
17. Adequate use of commodities from joint tenancy	0(0)	0(0)	140(100)
18. Right to live with family members in distressed.	140(100)	0(0)	0(0)
19. In case of causality the assistance from church/temple.	120(85.71)	20(14.29)	0(0)
D. Coping strategies from stress			
20. Working as labour in Forest department	140(100)	0(0)	0(0)
21. Income(making and selling bamboo products) under stress condition	115(82.14)	25(17.86)	0(0)
23. Weaving or Tailoring(under stress condition)	119(85)	21(15)	0(0)

Overall Livelihood status of jhumias: According to the bar chart in Figure 1, 39.3% of the jhumias who practiced Jhum had poor livelihood status, followed by 36.4% who had medium livelihood status and 24.3% who had high livelihood status. The probable reason could be, "Small and scattered Cycle " leading to degeneration of soil fertility and potential yield of the crop. Again resource poor jhumias only approach of organic agriculture resulted in poor yield and poor income. Consequently, the vast majority of the jhumias fall into the low to medium livelihood status group.

**Fig 1:** Overall Livelihood status

The findings reveal that a majority of Jhumias continue to experience low to medium levels of livelihood security, despite their strong dependence on Jhum cultivation as the primary source of subsistence and identity. This aligns with earlier studies showing that shifting cultivators in North-East India often face constraints in natural, financial, and physical resources, which directly impact livelihood outcomes (Roy & Sarkar, 2015; Mishra, 2018) ^[12, 9]. Although the community benefits from strong social cohesion, shared access to common property resources, and high physical work capacity attributes commonly found among tribal farming groups (Singh & Sureja, 2008) ^[16], their overall livelihood status remains weak. Poor livestock holdings, inadequate savings, and limited credit access mirror the structural constraints highlighted in national assessments of shifting cultivation (Government of India, 2014) ^[6]. Furthermore, the decline in soil fertility due to shortened Jhum cycles, coupled with reliance on low-input, organic practices, significantly reduces crop productivity, echoing ecological concerns raised by Tripathi and Barik (2003) ^[17] and Ramakrishnan (1992) ^[11]. Reduced returns from timber and non-timber forest products further undermine income diversification, a challenge previously reported among tribal communities dependent on forest-based livelihoods (Hargreaves & Singh, 2010) ^[7]. Consequently, with 39.3% of households categorized under poor livelihood status, the study underscores the urgent need

for enhanced resource support, diversified income opportunities, and institutional interventions to strengthen resilience among Jhum-dependent families.

Conclusion

The study on the livelihood status of tribal farmers engaged in Jhum cultivation in Tripura reveals that shifting cultivation continues to be an integral component of tribal identity, subsistence, and socio-cultural stability, despite its declining economic viability. Guided by the objectives of assessing livelihood capacities, evaluating livelihood assets, and examining livelihood activities and coping mechanisms, the findings indicate that most Jhumias fall within low to medium levels of livelihood security. Limited access to natural and financial assets, inadequate infrastructure, shrinking Jhum cycles, and reduced returns from forest-based resources significantly constrain their livelihood resilience. While strong social capital, traditional ecological knowledge, and community-based coping strategies continue to support their subsistence, these strengths are insufficient to counterbalance structural challenges. The study underscores the need for integrated livelihood interventions, diversification of income sources, improved institutional support, and sustainable resource management to enhance the well-being and long-term sustainability of tribal communities dependent on Jhum cultivation in Tripura.

References

1. Borthakur S. Shifting cultivation in North-East India: An overview. ICAR Research Complex for NEH Region; 2007.
2. Chambers R, Conway G. Sustainable rural livelihoods: practical concepts for the 21st century. IDS Discussion Paper No. 296. Institute of Development Studies; 1992.
3. Choudhury D. Tribal agriculture and livelihood in North-East India. Mittal Publications; 2015.
4. Das M. Socio-economic importance of Jhum cultivation among Reang tribe of Tripura. *Int J Soc Sci Interdiscip Res*. 2013;2(8):45-52.
5. Ellis F. Rural livelihoods and diversity in developing countries. Oxford University Press; 2000.
6. Government of India. Report of the Task Force on Shifting Cultivation in North-East India. Ministry of Agriculture and Cooperation; 2014.
7. Hargreaves J, Singh R. Landraces and biodiversity conservation in tribal agriculture. *Biodiversity J*. 2010;1(4):211-220.
8. Majumdar DN. Tribal life in India. Asia Publishing House; 2014.
9. Mishra B. Livelihood vulnerability of Jhum cultivators in North-East India. *Eco-Forum J*. 2018;7(1):47-57.
10. Padmanabhan M. The role of traditional knowledge in crop diversity conservation. *J Ethnobiol*. 2011;31(2):185-200.
11. Ramakrishnan PS. Shifting agriculture and sustainable development: an interdisciplinary study from North-Eastern India. UNESCO-Parthenon Publishing; 1992.
12. Roy A, Sarkar A. Livelihood patterns of shifting cultivators in Tripura. *J Hum Ecol*. 2015;52(2):137-146.
13. Shah S. Economics of shifting cultivation in North-East India. *J Rural Dev*. 2004;23(3):277-292.
14. Scoones I. Sustainable rural livelihoods: a framework for analysis. IDS Working Paper No. 72. Institute of Development Studies; 1998.
15. Singh KS. People of India: Tripura. Anthropological Survey of India; 1996.
16. Singh RK, Sureja AK. Traditional wisdom and sustainable livelihoods: tribal practices in North-East India. *Indian J Tradit Knowl*. 2008;7(1):145-154.
17. Tripathi RS, Barik SK. Ecology and economics of shifting cultivation. *Curr Sci*. 2003;84(10):1246-1253.