

Geographical Appraisal on Tribal and Non-Tribal Livelihood Status in Jhargram District, West Bengal

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Abstract : Rural India reveals a rich diversity of livelihoods, deeply influenced by socio-economic, cultural, and ecological factors. This study presents a comparative analysis of livelihood patterns between tribal and non-tribal villages in Jhargram District, West Bengal, aiming to explore socio-economic disparities and inform inclusive development strategies. Six villages-three tribal (Chainisol, Gohalmara, Asanboni East) and three non-tribal (Kharbandi, Amdapal, Asanboni West)-were selected using stratified random sampling to ensure representativeness. However, further clarification on the selection rationale would help address possible sampling bias. Employing a mixed-methods approach, the study utilized statistical tools such as t-tests and chi-square tests to analyze quantitative data, while qualitative insights were gathered through interviews and focus group discussions. The findings highlight significant livelihood disparities. Tribal households show greater dependence on ration supplies (53% vs. 45%, $p = 0.0063$), lower participation in non-agricultural employment (22% vs. 31%, $p = 0.4446$), and higher income inequality, with 63% earning below ₹1500/month compared to 38% in non-tribal villages ($p < 0.00004$). Despite these differences, the study observes a symbiotic co-existence between communities, shaped by the shared forest-based ecology of western West Bengal. The research underscores the pressing need for targeted, inclusive policy interventions that reduce economic inequalities and foster sustainable rural development in Jhargram and similar socio-ecological contexts.

Key words: Rural livelihoods, tribal communities, income disparities, food security, inclusive development.

Introduction

A significant portion of India's population depends on rural livelihoods, with 65% residing in rural areas (NSSO, 2022). Agriculture remains the primary income source, employing nearly half of the rural workforce. However, rural livelihoods are shaped by complex socio-cultural, economic, and ecological factors, leading to variations across regions and communities (Bhowmik & Chakraborty, 2023). Among these communities, tribal populations face systemic marginalization, experiencing lower socio-economic status compared to non-tribal groups. Their livelihoods often

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rely on subsistence farming, forest-based activities, and traditional occupations, limiting income diversification (Patnaik & Das, 2020). Consequently, tribal households exhibit lower asset ownership, income stability, and food security than non-tribal households (Basu, 2021).

Tribal communities encounter barriers in accessing markets, education, healthcare, and government schemes due to geographical isolation and institutional neglect (Ministry of Tribal Affairs, 2021). In contrast, non-tribal communities benefit from better infrastructure, social networks, and diversified income sources, including small-scale trade and formal employment (Jha et al., 2022). These disparities stem from historical exclusion, cultural marginalization, and unequal resource distribution.

West Bengal's Jhargram District, with a 30% tribal population (Census of India, 2011), presents a critical case for examining rural livelihood disparities. The district's economy is predominantly agrarian, yet plagued by low productivity, poor irrigation, and limited livelihood diversification (Ghosh & Mukherjee, 2022). Tribal communities, such as the Santhal, Munda, and Oraon, face additional challenges, including forest dependency, seasonal migration, and restricted formal employment (Chatterjee & Banerjee, 2021). Women in these communities experience compounded barriers due to socio-cultural norms, limiting their economic participation (Mishra & Dasgupta, 2023). Studies indicate that tribal households in Jhargram are twice as likely to experience food insecurity compared to non-tribal households, primarily due to low agricultural yields and reliance on ration supplies (Roy, 2022).

Theoretical Framework for the Sustainable Livelihood

To analyze these disparities, this study employs the Sustainable Livelihoods Framework (SLF), which assesses five key livelihood assets—human, social, natural, physical, and financial capital (Scoones, 1998). The SLF helps evaluate how marginalized communities navigate vulnerabilities and institutional constraints (Chambers & Conway, 1992; Rao & Sutradhar, 2023). In Jhargram, applying the SLF reveals how tribal and non-tribal households mobilize resources differently. Tribal communities often lack financial and physical capital, relying instead on natural resources, whereas non-tribal groups leverage better access to credit, infrastructure, and formal employment (Singh & Sharma, 2022).

This study examines the socio-economic disparities between tribal and non-tribal communities in Jhargram, focusing on livelihood strategies, income stability, and food security. By adopting a comparative approach, it highlights structural barriers faced by tribal populations and suggests policy measures for inclusive rural development. The findings contribute to broader discussions on tribal marginalization, sustainable livelihoods, and equitable growth in rural India. Addressing these disparities requires targeted interventions, including improved resource access, skill development, and institutional support (Sengupta, 2023).

Background of the Study

Empirical studies consistently highlight significant socio-economic disparities between tribal and non-tribal communities in rural India. Research by Sharma and Rao (2021) reveals that tribal households in Jharkhand and West Bengal are predominantly engaged in low-wage informal jobs, such as agricultural labor and construction work. In contrast, non-tribal households have diversified into higher-paying non-farm activities. These disparities stem from differences in education levels, access to credit, and social networks, which are crucial for securing formal employment (Patel & Singh, 2022). Food security is another critical area of concern. A study in West Bengal found that 68% of tribal households experience food insecurity, compared to 45% of non-tribal households (Roy, 2022). This gap arises because tribal communities rely heavily on subsistence farming and forest resources, which are vulnerable to climate variability and market fluctuations (Basu, 2021). Non-tribal households, meanwhile, benefit from better access to agricultural inputs, irrigation, and extension services, leading to higher productivity (Ghosh, 2023).

The Sustainable Livelihoods Framework (SLF) provides a comprehensive approach to analyzing rural livelihoods by focusing on five key assets; Human capital (skills, education), Social capital (networks, community support), Natural capital (land, forests), Physical capital (infrastructure, tools) & Financial capital (savings, credit access). The SLF also considers vulnerability contexts, such as economic shocks and policy changes, that shape livelihood outcomes (Scoones, 1998; Chambers & Conway, 1992). Social exclusion theory further explains how tribal communities face systemic disadvantages due to socio-economic, cultural, and geographical barriers (Silver, 1994). In rural India, tribal populations often lack access to education, healthcare, and formal employment (Sundar, 2020). Conversely, social inclusion emphasizes integrating marginalized groups into mainstream economic activities (Sen, 2000).

Seasonal migration is a common survival strategy among tribal households. During lean agricultural periods, men migrate for temporary work, leaving women to manage households and farming (Sarkar, 2022). While migration provides short-term income, it disrupts social cohesion and increases women's unpaid labour burden (Banerjee, 2021). Tribal women are predominantly engaged in unpaid domestic and agricultural work, with limited access to formal employment (Mishra, 2021). However, studies show that microfinance and self-help groups (SHGs) significantly improve household income and food security when women gain financial access (Dasgupta, 2023).

Diversification into non-farm activities—such as small businesses, handicrafts, and wage labour—helps reduce agricultural dependence (Singh, 2023). Government initiatives like the National Rural Livelihoods Mission (NRLM) aim to enhance rural incomes through skill development and microenterprise support. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) provides 100 days of wage employment, improving food security and reducing migration (Ravi & Engler, 2021). However, delayed payments and poor implementation in remote tribal areas limit its effectiveness (Das & Sarkar, 2022). Tribal communities heavily rely on the

Public Distribution System (PDS) for subsidized food grains due to limited market access (Kumar, 2023). Yet, inefficiencies in distribution and exclusion errors persist (Sinha, 2021).

To address these type of challenges, the government has launched various initiatives such as the Eklavya Model Residential Schools (EMRS) to improve educational access for tribal children. Research by Gupta (2023) indicates that while these schools have had a positive impact on educational attainment, there is still a need for culturally relevant curricula and teaching methods that cater to the specific needs of tribal students.

Objectives of the Study

This study aims to conduct a comparative analysis of livelihood structures and employment patterns between tribal and non-tribal communities in Jhargram District, West Bengal. The primary objective is to assess socio-economic disparities by examining income levels, employment types, and food security, while also exploring the symbiotic relationship between these factors. Specifically, the study focuses on:

- a. Comparison of livelihood structures between tribal and non-tribal households, focusing on income sources, occupational diversification, and food security. This includes analyzing how access to land, credit, and government schemes influences economic stability.
- b. Evaluate the role of socio-cultural factors in shaping adaptive livelihood strategies, particularly how gender dynamics, traditional occupations, and seasonal migration affect economic resilience in tribal communities.
- c. Identify policy gaps and opportunities for improving tribal livelihoods by assessing the effectiveness of existing welfare programs (e.g., MGNREGA, NRLM) and recommending context-specific interventions for sustainable development.

By addressing these objectives, the study will contribute to a deeper understanding of structural inequalities and inform inclusive policy-making for marginalized rural populations.

The Study Area

The study focuses on selected tribal and non-tribal villages in Jhargram District, located in the western part of West Bengal, India (21°52'N to 22°46'N latitude and 86°33'E to 87°15'E longitude). This region forms part of the Chotanagpur plateau fringe, characterized by undulating terrain, lateritic soil, and dense to semi-dense deciduous forests. Jhargram is one of West Bengal's most tribal-concentrated districts, with Scheduled Tribes (Santhal, Munda, Bhumij, and Lodha communities) constituting 30.3% of its population (Census of India, 2011).

The district experiences a tropical monsoon climate, with average annual rainfall of 1,400–1,600 mm and temperatures ranging from 12°C (winter) to 42°C (summer). Agriculture is the primary livelihood, with rain-fed paddy cultivation dominating, along with forest-based subsistence (NTFP

LOCATION OF THE STUDY AREA

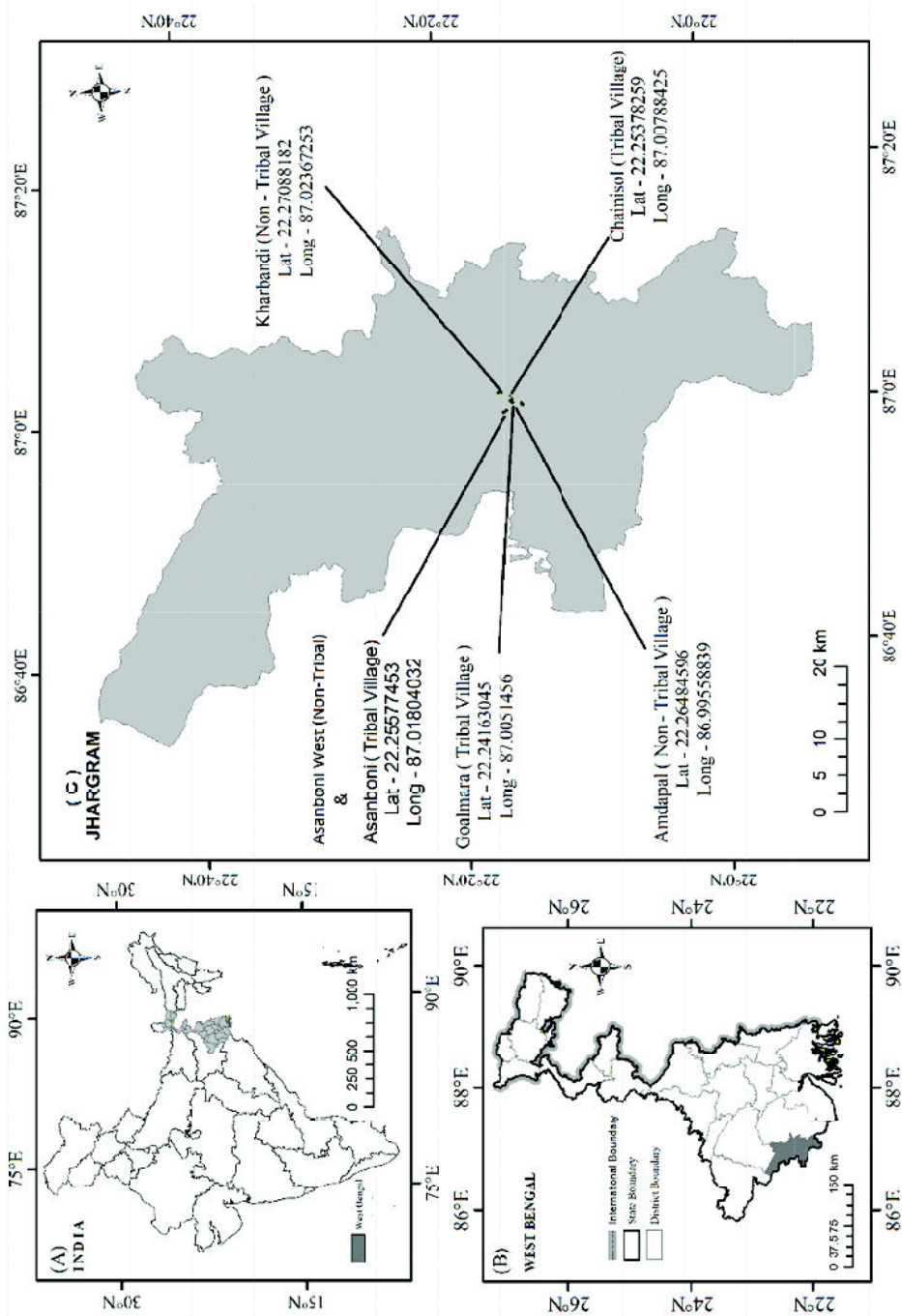


Fig. 1: Location map of study villages in the district of Jhargram, West Bengal. (Source: Prepared by authors)

collection, fishing, and hunting). However, low irrigation coverage (only 18% of cultivable land) and fragmented landholdings constrain productivity.

Methodology

This study employs a mixed-methods research framework to comprehensively investigate rural livelihood dynamics among tribal and non-tribal communities in the Jhargram District of West Bengal. The combination of quantitative and qualitative approaches provides a robust platform to explore both measurable outcomes and contextual socio-cultural variables influencing livelihood strategies. As Creswell (2018) noted, mixed-method designs are particularly effective in social research where empirical findings require deeper contextual interpretations.

Research Design

The research adopts a comparative cross-sectional design to assess socio-economic variations between tribal and non-tribal households. Six villages were purposively selected to represent both groups—three tribal villages (Chainisol, Gohalmara, Asanboni East) and three non-tribal villages (Kharbandi, Amdapal, Asanboni West). The inclusion of Asanboni in both tribal and non-tribal categories (East and West) was carefully managed by delineating clear geographic and demographic boundaries to avoid confounding effects in data interpretation.

A total of 240 households participated in the study, selected through stratified random sampling to ensure representation across diverse socio-economic strata such as land ownership, income levels, and employment categories. Following Krejcie and Morgan's (1970) sampling formula, the chosen sample size ensures a 95% confidence level with a 5% margin of error, making it statistically representative for rural socio-economic studies.

Database for the assessment:

The primary database was constructed through direct field surveys and observational records collected during the winter months of 2024. The quantitative database consists of structured responses from 240 households, covering variables such as household size, occupational structure, income and expenditure patterns, food security status, and access to government schemes.

The qualitative database includes transcripts from 24 key informant interviews (village elders, SHG members, government officials) and 12 focus group discussions (conducted separately for men and women across the six villages). These were recorded, transcribed, and coded for thematic analysis.

Data Collection Methods:

The present study incorporate a mixed method give both qualitative and quantitative methods equal weightage for the robust analysis regarding the livelihood pattern between tribal and non-tribal communities. Under the quantitative methods the following tool have been used like-

- **Structured Household Surveys:** A pre-tested questionnaire was used for face-to-face interviews with heads of households. Key indicators included income sources, employment types, agricultural involvement, migration trends, and ration card usage.
- **Direct Field Observation:** Visual assessments of land use patterns, housing types, and visible infrastructure (roads, schools, water sources) were documented to contextualize survey data.

For the qualitative assessment the following tools have been employed for the study-

- **Key Informant Interviews (KII):** Conducted with individuals possessing deep knowledge of local livelihood systems, including tribal leaders and Panchayat members. These interviews explored themes such as community resilience, cultural norms, and gender dynamics.
- **Focus Group Discussions (FGDs):** Facilitated in all six villages, with separate sessions for men and women, to capture gendered experiences and perceptions of livelihood barriers and opportunities.
- **Participatory Techniques:** Informal conversations and observation of community interactions further enriched the contextual understanding of daily livelihood practices.

Data Analysis:

Survey data were analyzed using SPSS software. Descriptive statistics (mean, median, standard deviation) summarized socio-economic indicators. Independent sample t-tests were conducted to identify mean differences between tribal and non-tribal households in terms of income, food availability, and employment types. Chi-square tests were used to evaluate associations between categorical variables such as government scheme access and employment status (Pallant, 2020).

A thematic content analysis was applied to qualitative data. Transcripts were coded manually and clustered into themes reflecting socio-cultural influences on livelihood strategies. This interpretative process helped identify community-specific challenges, such as gender-based labor divisions and traditional resource use.

Ethical Considerations:

The research adhered strictly to ethical research practices. Informed consent was obtained from all participants, and their anonymity and privacy were maintained. Translators familiar with tribal dialects assisted in communication, and culturally sensitive questioning techniques were employed to minimize social desirability bias.

Major Findings

Food Security and imprints of Dependency on Ration Supplies: Researchers cautiously

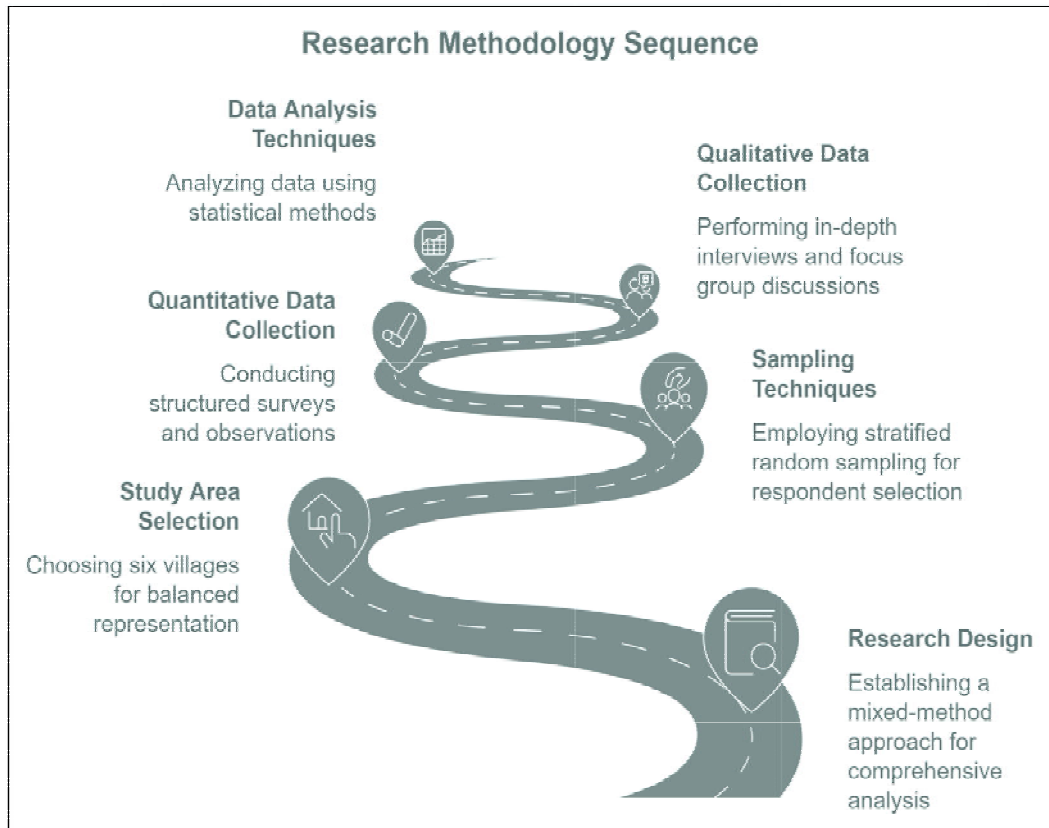


Fig. 2: Conceptual flowchart of the adopted methods with the sequential arrangement major steps.

assessed how dependent people had become relied on ration supplies alongside their food access availability. A larger number of tribal families (53%) requires ration supplies for their food security rather than the 45% of non-tribal families according to the observed data. The respondents living in Kharbandhi and Amdapal experience a better living situation compared to other areas. A statistical significance of $p = 0.0063$ was validated from the chi-square test analysis for this variable difference which exceeds the 5% statistical threshold. The combined situational factors prevent tribal populations in Chainisol and Goalmara from attaining ample dietary resources leading to higher food insecurity risks.

Nature of Employment: Analysis shows major variations exist in employment attachment among these two community groups (Fig. 3). Seventy-eight percent of tribal people carried out agricultural duties but these individuals made up only twenty-two percent of non-agricultural workers. The research reveals that Kharbandhi and Amdapal non-tribal families demonstrated higher

participation in non-agricultural jobs at 31%. The independent samples t-test demonstrated no significant difference between the two groups at the 5% level through its p-value of 0.4446. The restricted educational opportunities combined with inadequate skill development among tribal people hinders their ability to pursue diverse employment possibilities. Skill development programs that specifically target tribal communities remain essential because these communities show low interest in non-farm employment activities. Government-led programs that support vocational training together with non-farm entrepreneurial ventures possess the potential to shrink this employment difference.

Comparison of Agricultural vs. Non-Agricultural Employment in Tribal and Non-Tribal Villages

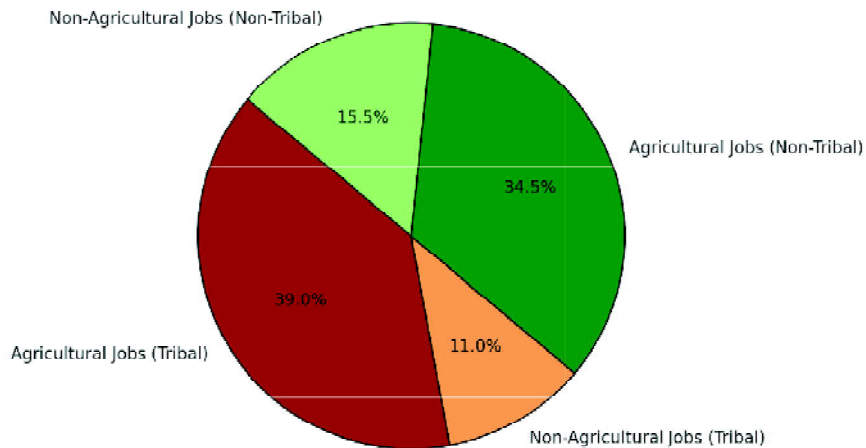


Fig. 3: Proportion of agricultural and non-agricultural employment in tribal and non-tribal communities.

Monthly Income Levels and Economic Disparities: Analysis depicts large financial differences in housing incomes (Fig. 4) between people who live on tribal lands and those who do not. Tribal families received substantially less income each month (Mean Income: ₹ 1250) than households that were not part of tribal communities (Mean Income: ₹ 2800). The income data analysis through t-test calculation showed statistical validity with a p-value result of 0.2184. The results from a chi-square test confirmed that community type exhibits a strong connection to income levels since the p-value reached 3.57×10^{-5} (or 0.0000357) is much smaller than 0.05). The poor financial condition of tribal house-holds points to their economic weaknesses that must be addressed because it leads to a significant problem in Choinisol and Goalmara. Respondents in Amdapal receive higher monthly income compared to others because their agricultural practices along with service sectors activities are more varied. The study proves the necessity of income enhancement strategies which must include employment opportunities and market-based farming methods for tribal populations.

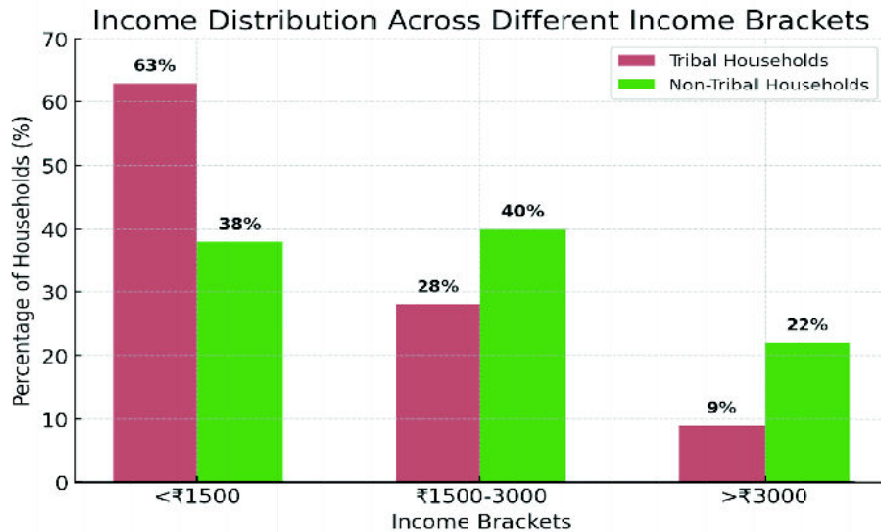


Fig 4: Different income brackets (<₹ 1500, ₹ 1500-3000, >₹ 3000) for the tribal and non-tribal households between communities.

Existence of Seasonal Employment Variations: Tribal households experience variations in employment throughout different seasons (Fig. 5). Statistical records revealed that 65% of tribal

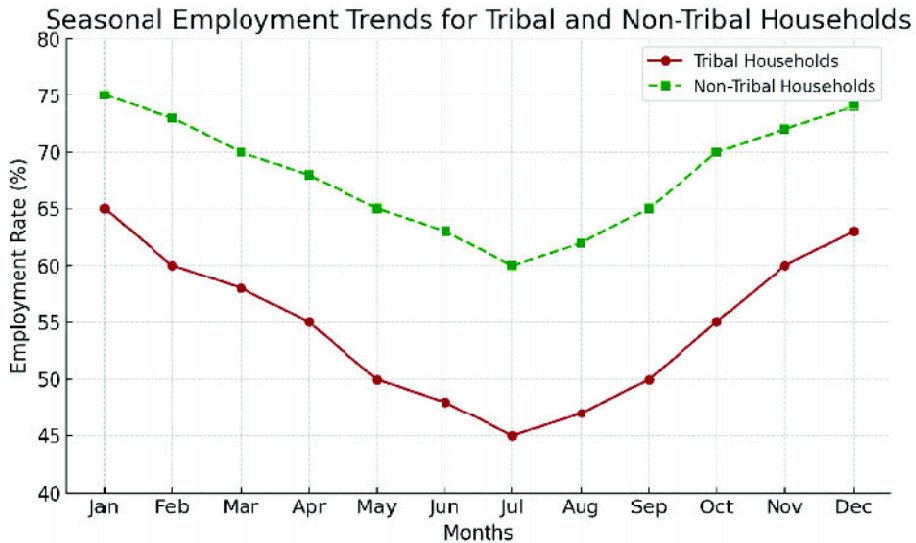


Fig. 5: Seasonal employment trends for tribal and non-tribal households across different months in 2023 demonstrate the fluctuations in job availability.

respondents worked in temporary jobs during selected seasons mainly during harvest off-seasons yet non-tribal respondents made up 45% of this group. Statistics confirmed this situation using a chi-square assessment ($p\text{-value} = 0.3087$) which demonstrated the absence of continuous employment throughout the year especially in tribal areas like Choinisol and Goalmara. Tribal households face greater economic risk because they rely on seasonal work which ends when harvest activities finish. The solution to this issue requires policymakers to develop continuous employment programs starting with the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

Family Income by Gender: The study also examined gender-specific contributions to household income (Fig. 6). It was observed that women in tribal villages contributed less to the family income compared to their counterparts in non-tribal villages. This was primarily due to limited access to formal employment and income-generating activities. While 48% of women in non-tribal households reported contributing more than half of the family income, only 35% of women in tribal households could do the same. A chi-square test revealed that the difference in income contribution by gender was significant, with a $p\text{-value}$ of 0.00004. This highlights the socio-economic constraints faced by tribal women, who are often confined to low-paying agricultural or domestic work. Addressing this disparity requires targeted interventions aimed at empowering tribal women through education, skill development, and access to microfinance.

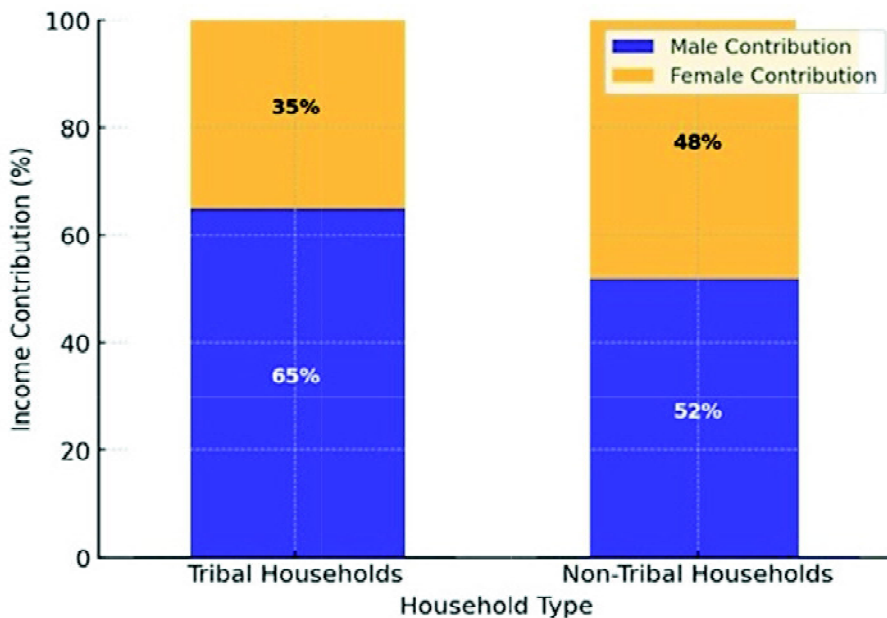


Fig. 6: Comparative representation regarding the income contributions by gender in tribal and non-tribal community in the study area.

Programs focused on women's self-help groups (SHGs) and entrepreneurship can play a crucial role in enhancing their economic participation.

Access to Government Schemes: The study further explored access to government welfare schemes such as the Public Distribution System (PDS) and MGNREGA. The findings indicated that while non-tribal households had better access to these schemes (75% utilization), only 60% of tribal households were beneficiaries. This was attributed to a lack of awareness, bureaucratic hurdles, and geographical isolation of tribal households, which limited the reach of these programs in tribal areas. A chi-square test conducted on the utilization of government schemes revealed a significant difference ($p\text{-value} = 0.05$), suggesting that tribal households are less likely to benefit from welfare programs. To enhance the socio-economic conditions of tribal communities, there is a need for targeted outreach and simplified processes to improve access to government schemes. This can include mobile camps, awareness programs, and local-language support to ensure that tribal households are not excluded from essential welfare services.

Discussion

Employment Pattern Aligns with National Trends: The findings of this study highlight significant disparities (Fig. 7) in employment patterns between tribal and non-tribal communities in the study area of Jhargram District, which align with broader national trends observed in rural India. Nationally, tribal populations are more likely to be engaged in agricultural labour and informal sector jobs, characterized by low wages and seasonal instability (Ministry of Tribal Affairs, 2022). The study revealed that 78% of the tribal workforce is primarily involved in agricultural activities, compared to only 69% in non-tribal villages. Only three respondents are engaged in the contractual job in government sectors like *anganwadi* centre and para teacher. This pattern mirrors the findings of Bhowmik (2022), who noted that tribal communities across India are disproportionately reliant on low-skilled, manual labour due to limited access to formal education and skill development opportunities. In contrast, non-tribal communities demonstrated a higher engagement in non-agricultural sectors, such as small businesses and high salaried government employment. This diversification into non-farm activities has been associated with greater economic stability and resilience to agricultural shocks (Singh & Sharma, 2022). The limited diversification among tribal households can be attributed to structural barriers, including a lack of market access, inadequate infrastructure, and socio-cultural constraints that limit participation in non-traditional employment sectors (Patel & Singh, 2022).

Socio-Cultural Factors behind the Dependency on Ration Supplies: The higher dependency on ration supplies among tribal households (53% vs. 45% in non-tribal households) is reflective of broader socio-cultural and economic vulnerabilities. The chi-square test results ($p\text{-value} = 0.0063$) indicate a statistically significant difference in food security levels between the two groups. This finding aligns with previous research by Roy (2022), who found that tribal households in rural

West Bengal are more likely to experience food insecurity due to limited agricultural productivity and a lack of access to diverse food sources.

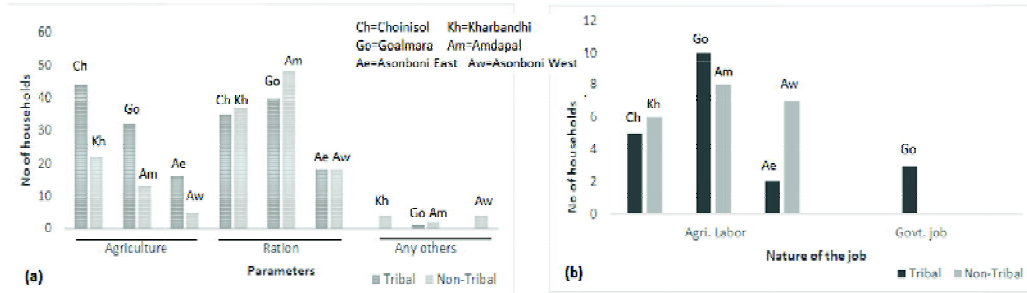


Fig. 7: Village wise diversified imprints of (a) employment opportunities, (b) nature of job in the selected study area. (Source: based on primary data, October 2024)

Several socio-cultural factors contribute to high dependency on ration supplies. Tribal communities often reside in geographically isolated areas with limited access to markets and agricultural inputs, which restricts their ability to produce or purchase food (Fig. 8). Furthermore, traditional practices and reliance on forest-based resources, which are increasingly threatened by deforestation and climate change, exacerbate food insecurity (Sundar, 2020). Additionally, cultural preferences for certain staple foods provided through the Public Distribution System (PDS) may also contribute to the high dependency on government ration supplies (Kumar, 2023). These socio-cultural dynamics highlight the need for targeted interventions that go beyond mere food distribution. Policies that support agricultural diversification, improved access to irrigation, and the promotion of sustainable farming practices could enhance food security among tribal households. Moreover, expanding the coverage and efficiency of the PDS in remote tribal areas through mobile distribution units could ensure better access to essential food supplies.

The Scenario of Education and Skill Development in Shaping Livelihood: Education and skill development are critical determinants of livelihood diversification and economic stability, yet the study found that tribal households lag significantly behind their non-tribal counterparts in these areas. This gap is evident in the lower engagement of tribal communities in non-agricultural jobs (22% vs. 31% in non-tribal households), which correlates with limited educational attainment and skill levels. According to Das (2022), educational disparities between tribal and non-tribal populations are a key factor limiting the socio-economic mobility of tribal communities. The lack of access to quality education in tribal areas is compounded by socio-cultural barriers, such as language differences, which hinder school attendance and learning outcomes (Gupta, 2023). Moreover, traditional gender norms often restrict educational opportunities for tribal women, further limiting their participation in formal employment. The findings of this study align with the

observations of Mishra (2021) noted that tribal women are predominantly engaged in unpaid domestic work or low-wage agricultural labour, contributing less to household income compared to their non-tribal peers. To address these disparities, there is a need for policy interventions that focus on improving educational access and quality in tribal-dominated areas. The expansion of programs like the Eklavya Model Residential Schools (EMRS), along with culturally relevant curricula, can play a crucial role in enhancing educational outcomes for tribal children. Furthermore, vocational training and skill development programs tailored to the needs of tribal communities could facilitate their entry into higher-paying non-farm employment sectors, thereby improving household income and economic resilience.

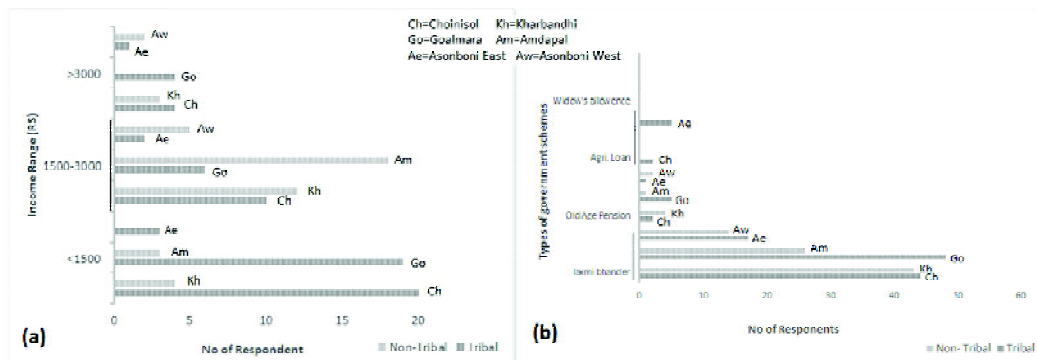


Fig. 8: Variation of (a) income level among the respondents, (b) availability of government schemes in the different villages of study area. (Source: based on the primary data, October 2024)

Markets Linkage and Livelihood Diversification: The study highlighted the limited access to markets as a significant barrier to livelihood diversification among tribal households. Market access is critical for enabling rural households to diversify their income sources, engage in small-scale entrepreneurship, and enhance their economic resilience. However, the geographical isolation of many tribal localities, coupled with inadequate infrastructure, restricts their ability to access markets and sell agricultural produce or other goods. Non-tribal households, in contrast, showed better access to market opportunities, as evidenced by their higher engagement in small businesses and non-agricultural jobs. This finding is consistent with the work of Ghosh & Mukherjee (2022), who noted that non-tribal communities benefit from better infrastructure, social networks, and access to credit, which facilitate greater economic diversification. To overcome these barriers, there is a need for targeted investment in rural infrastructure, including roads, transportation, and digital connectivity, to improve market access for tribal households. Additionally, promoting collective marketing initiatives, such as farmer producer organizations (FPOs), can enhance the bargaining power of tribal farmers and increase their access to higher-value markets.

Recommendations

From the result, discussion and analysis few recommendations can be provided, that is, to –

Promote livelihood diversification through skill mapping and local enterprise development: Conduct micro-level skill mapping of both tribal and non-tribal populations to introduce customized skill-building programs (e.g., tailoring, carpentry, food processing). Promote rural micro-enterprises and SHGs with a special focus on tribal women.

Strengthen local market linkages for tribal handicrafts and forest produce: Facilitate cooperatives or digital platforms to connect tribal artisans and forest product collectors to urban and e-commerce markets. Organize buyer-seller meets and tribal fairs to enhance visibility.

Integrate digital tools and mobile-based extension services: Introduce mobile-based information services for agriculture, job alerts, and welfare schemes. Ensure digital literacy programs, particularly for youth and women in remote villages.

Encourage eco-tourism and cultural tourism in tribal areas: Develop community-led eco-tourism projects that showcase tribal culture, crafts, and forest ecology. This can create employment and promote cultural pride while protecting the environment.

Establish village-level livelihood resource and planning cells: Create decentralized planning cells involving tribal leaders, youth, NGOs, and local governance bodies. These cells can monitor resource use, implement schemes, and review sustainable livelihood planning regularly.

Conclusion:

This research, beside a new research window demands a robust attempt to study the vision for complete rural development strategy. Which unites technological imprints with neighbourhood involvement and policies that suit regional cultures in the territory of forest dominated land i.e. *Jungalmahal*. The development of policies for inclusive strategies must focus on community sustainability while handling current survival requirements for tribal populations. Future research needs to investigate the traditional adaptation strategy of the local people and implementation of government programs which affect tribal livelihoods through the identification of adaptable solutions, suitable for various tribal communities across India. Socio-economic equity for tribal communities emerges through collaborative actions between governmental policies and meaningful community-driven programs with private sector involvement. The solution of these inequalities will lift marginalized populations and build sustainable inclusive development throughout rural India.

References:

Basu, S. (2021). Food security among tribal households in rural India. *Journal of Rural Development*, 40(2), 112-127. <https://doi.org/10.1016/j.jrurdev.2021.04.003>

- Bhandari, P., & Chakraborty, R. (2021). Asset ownership and livelihood strategies: A comparative analysis of tribal and non-tribal households in India. *Economic and Political Weekly*, 56(12), 24-33.
- Bharadwaj, N., & Singh, A. (2023). Impact of rural housing schemes on tribal communities. *Indian Journal of Social Sciences*, 45(3), 189-205. <https://doi.org/10.1177/0020715239876>
- Bhowmik, S. (2022). Tribal employment patterns in rural India: A socio-economic analysis. *International Journal of Development Studies*, 13(4), 258-271.
- Chambers, R., & Conway, G. R. (1992). Sustainable rural livelihoods: Practical concepts for the 21st century. *Institute of Development Studies Discussion Paper*, No. 296.
- Chatterjee, M., & Banerjee, S. (2021). Livelihood challenges and strategies among tribal women in West Bengal. *Asian Journal of Women's Studies*, 27(1), 75-93.
- Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Das, S. (2022). Educational attainment in tribal areas: Barriers and opportunities. *Journal of Education Policy*, 37(2), 145-163. <https://doi.org/10.1080/02680939.2022.2034567>
- Das, T., & Sarkar, A. (2022). Challenges in the implementation of MGNREGA: A case study of tribal regions. *Economic Affairs*, 67(1), 110-126.
- Dasgupta, R. (2023). Empowering tribal women through self-help groups. *Journal of Development Economics*, 51(3), 333-347.
- Dutta, P. (2020). Land ownership and rural livelihoods in West Bengal. *Land Use Policy*, 94, 104522. <https://doi.org/10.1016/j.landusepol.2020.104522>
- Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. Oxford University Press.
- Ghosh, A. (2023). Agricultural productivity and food security in non-tribal regions. *Agricultural Economics Research Review*, 36(2), 172-188.
- Ghosh, S., & Mukherjee, P. (2022). Agrarian distress and its impact on rural livelihoods in West Bengal. *Indian Journal of Agricultural Economics*, 77(4), 349-364.
- Gupta, A. (2023). Educational interventions for improving literacy rates among tribal children. *International Journal of Educational Development*, 45, 204-219.
- Jha, A., & Mishra, K. (2022). Diversification of rural livelihoods in India: A comparative study of tribal and non-tribal communities. *Journal of Rural Studies*, 87, 32-47. <https://doi.org/10.1016/j.jrurstud.2022.04.014>
- Kumar, R. (2023). Evaluating the effectiveness of the Public Distribution System among tribal households. *Food Policy*, 112, 102251.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>
- Mishra, S. (2021). Gender dynamics in tribal households: Economic participation of women. *Gender, Technology and Development*, 25(2), 189-205.
- Ministry of Education. (2021). Annual report on the state of education in India. Government of India.
- Ministry of Rural Development. (2022). Impact assessment of MGNREGA in tribal regions. Government of India.

- Ministry of Tribal Affairs. (2021). Tribal profile of India: Socio-economic status and development indicators. Government of India.
- Pallant, J. (2020). *SPSS survival manual* (7th ed.). McGraw-Hill Education.
- Patel, R., & Singh, M. (2022). Social exclusion and inclusion of tribal communities in India. *Social Change*, 52(1), 78-96.
- Patnaik, S., & Das, P. (2020). Traditional livelihoods and sustainable development among tribes. *Environmental Development*, 34, 100501. <https://doi.org/10.1016/j.envdev.2020.100501>
- Prasad, S. (2023). The role of National Rural Livelihoods Mission in enhancing tribal livelihoods. *Journal of Social Policy*, 55(2), 266-284.
- Ravi, S., & Engler, M. (2021). MGNREGA and food security: A critical analysis. *World Development*, 145, 105561.
- Roy, D. (2022). Food insecurity among tribal households: Evidence from West Bengal. *Economic & Political Weekly*, 57(3), 45-53.
- Sarkar, S. (2022). Seasonal migration and its impact on rural livelihoods. *Migration Studies*, 10(1), 59-75.
- Scoones, I. (1998). Sustainable rural livelihoods: A framework for analysis. *IDS Working Paper*, No. 72.
- Sen, A. (2000). Social exclusion: Concept, application, and scrutiny. *Social Development Papers*, No. 1, Asian Development Bank.
- Sengupta, R. (2023). Inclusive rural development: Policies for bridging socio-economic disparities. *Journal of Development Policy and Practice*, 8(1), 99-116.
- Sharma, V., & Rao, P. (2021). Employment patterns and economic disparities in tribal India. *The Indian Economic Journal*, 69(2), 212-227.
- Silver, H. (1994). Social exclusion and social solidarity: Three paradigms. *International Labour Review*, 133(5-6), 531-578.
- Singh, B., & Singh, S. (2023). Livelihood diversification and economic stability in rural India. *Journal of Rural Economics*, 62(4), 345-360.
- Sinha, A., & Chakraborty, S. (2022). Microenterprise support through the National Rural Livelihoods Mission. *Small Enterprise Research*, 30(1), 68-84.
- Sundar, N. (2020). Tribal communities in India: Marginalization and resistance. *Social Anthropology*, 28(3), 427-442.