

## Livelihoods, Income Inequality and Welfare Access among SC, ST and OBC Households in Nuapada District, Odisha: Evidence from a Primary Survey

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### Abstract

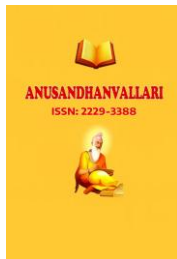
This study examines the livelihood patterns, income levels, and economic disparities among Scheduled Castes (SCs), Scheduled Tribes (STs), and Other Backward Classes (OBCs) in Nuapada district of Odisha, a region characterized by persistent poverty and structural backwardness. Using a primary-data-based descriptive and analytical research design, the study draws on household-level information collected from a sample of 200 households, comprising 70 SC, 70 ST, and 60 OBC households. The analysis focuses on key indicators of economic well-being, including occupational structure, household income, poverty status, land ownership, asset possession, and access to government welfare schemes. The findings reveal marked inter-group disparities in livelihoods and income. ST households emerge as the most economically vulnerable, with the lowest mean income, highest poverty incidence, and greater income inequality, largely due to dependence on subsistence agriculture, forest-based livelihoods, and seasonal migration. SC households also face significant economic constraints arising from widespread landlessness and reliance on agricultural wage labour. In contrast, OBC households demonstrate relatively higher income levels and more diversified livelihood strategies, although a substantial proportion remains vulnerable due to informal employment and low agricultural productivity. The study further finds that government welfare schemes such as MGNREGA, the Public Distribution System, and housing programmes play a crucial role in providing income support and food security at the household level. However, their overall effectiveness is constrained by implementation challenges, limited livelihood diversification, and inadequate convergence of schemes. The study underscores the need for region-specific and social-group-sensitive policy interventions aimed at promoting sustainable livelihoods, reducing income inequality, and ensuring inclusive economic development in backward regions like Nuapada district.

**Keywords:** Scheduled Castes; Scheduled Tribes; Other Backward Classes; Livelihoods; Income Inequality; Poverty; Welfare Schemes; Primary Survey; Nuapada District; Odisha

### 1. Introduction

#### Background on SC, ST and OBC Livelihoods in Backward Regions

Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs) constitute a significant share of India's rural population and form the backbone of the agrarian and informal economies, particularly in economically backward regions. Historically, these communities have been subjected to social exclusion, limited access to land and productive assets, and restricted participation in formal labour markets, resulting in persistent livelihood insecurity (Thorat, 2007; Deshpande, 2011). In backward regions, livelihood options for SC, ST and OBC households are largely confined to subsistence agriculture, agricultural wage labour, forest-based activities, and informal non-farm work, all of which are characterized by low productivity and income instability (Xaxa, 2008).



Empirical studies highlight that SC households are predominantly engaged in agricultural and casual wage labour due to high levels of landlessness, while ST livelihoods are closely tied to rain-fed farming and forest resources, making them highly vulnerable to environmental and institutional shocks (Kijima, 2006). OBC households, although relatively better positioned in terms of land ownership and occupational diversity, continue to face economic stress arising from fragmented landholdings, limited access to credit, and dependence on informal employment (Desai et al., 2010). These livelihood constraints are further intensified in backward regions due to weak infrastructure, poor market connectivity, and limited industrial development.

## 2. Rationale for a Household-Level Primary Survey in Nuapada District

Nuapada district of Odisha, located in the KBK region, exemplifies the intersection of social disadvantage and regional backwardness. The district is characterized by recurrent droughts, low agricultural productivity, high incidence of poverty, and significant out-migration for wage employment (Government of Odisha, 2020). Although secondary data sources provide broad insights into socio-economic conditions, they often fail to capture household-level variations in income, livelihood strategies, asset ownership, and access to welfare schemes, particularly across different social groups (Creswell, 2014).

A household-level primary survey is therefore essential to generate disaggregated and context-specific evidence on the economic conditions of SC, ST and OBC households in Nuapada district. Primary data enable the assessment of intra-group disparities, coping mechanisms, and perceived effectiveness of welfare interventions that are not adequately reflected in aggregate statistics (Kothari, 2004). Such micro-level analysis is crucial for understanding the real impact of development policies and for designing targeted, evidence-based interventions aimed at improving livelihood security and reducing income inequality among socially disadvantaged communities in backward regions.

### Objectives of the Study

1. To examine livelihood patterns and income levels of SC, ST and OBC households in Nuapada district.
2. To analyze inter-group income inequality and poverty status using household survey data.
3. To assess access to and perceived effectiveness of major government welfare schemes.

### Variables and Indicators

- **Dependent Variables:** Household income, poverty status, livelihood security
- **Independent Variables:** Social group, landholding size, education, access to welfare schemes
- **Key Indicators:** Income sources, occupation, land ownership, asset index, migration, scheme participation

## 3. Research Design and Sample Framework

The present study adopts a descriptive and analytical research design to examine livelihood patterns, income levels, and economic disparities among Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs) in Nuapada district of Odisha. A descriptive approach is employed to document the socio-economic characteristics of sample households, while the analytical component facilitates comparative and inferential assessment of inter-group differences (Kothari, 2004).

### Sample Size and Composition

Primary data were collected from a total of 200 households, selected to ensure adequate representation of the major social groups in the district. The sample distribution is as follows:

Social Group	Number of Households	Percentage of Sample
Scheduled Castes (SC)	70	35.0
Scheduled Tribes (ST)	70	35.0
Other Backward Classes (OBC)	60	30.0
Total	200	100.0

A multistage stratified sampling technique was used. In the first stage, selected blocks and villages were identified from Nuapada district. In the second stage, households were stratified on the basis of social category (SC, ST and OBC), and respondents were selected randomly from each stratum. This sampling design ensures comparability across social groups and minimizes sampling bias (Creswell, 2014).

### 4. Data Analysis Techniques

The collected primary data were coded, tabulated, and analyzed using standard quantitative techniques appropriate for socio-economic research.

**Table 4.1: Descriptive Statistics of Household Income by Social Group**

Social Group	Mean Annual Income (₹)	Standard Deviation (₹)	Minimum (₹)	Maximum (₹)
SC (n=70)	72,500	21,300	32,000	1,18,000
ST (n=70)	64,200	19,800	28,000	1,05,000
OBC (n=60)	89,400	26,500	40,000	1,45,000
<b>Overall (n=200)</b>	<b>75,800</b>	<b>25,100</b>	<b>28,000</b>	<b>1,45,000</b>

#### Interpretation:

ST households report the lowest mean income and least income range, indicating higher economic vulnerability. OBC households show relatively higher income but also greater income dispersion.

**Table 4.2: Occupational Structure of Sample Households (%)**

Occupation Type	SC (%)	ST (%)	OBC (%)	Total (%)
Agricultural labour	42.9	31.4	18.3	31.5
Cultivation	18.6	34.3	41.7	31.0
Non-farm wage work	25.7	17.1	23.3	22.0
Self-employment / trade	7.1	5.7	11.7	8.0

Migration-based work	5.7	11.5	5.0	7.5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Interpretation:**

SC households are highly dependent on agricultural wage labour, while ST households show greater dependence on cultivation and migration. OBC households exhibit relatively diversified livelihood patterns.

**Table 4.3: Poverty Status of Households by Social Group**

Poverty Status	SC (%)	ST (%)	OBC (%)	Total (%)
Below Poverty Line (BPL)	58.6	67.1	41.7	56.0
Above Poverty Line (APL)	41.4	32.9	58.3	44.0
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Interpretation:**

ST households record the highest incidence of poverty, followed by SC households, indicating persistent inter-group economic disparities.

**Table 4.4: Land Ownership Pattern (% of Households)**

Landholding Category	SC (%)	ST (%)	OBC (%)
Landless	47.1	28.6	15.0
Marginal (<1 ha)	38.6	45.7	41.7
Small (1–2 ha)	14.3	21.4	30.0
Medium (>2 ha)	0.0	4.3	13.3
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Interpretation:**

Landlessness is most acute among SC households, while OBC households have comparatively better access to land resources.

**Table 4.5: Income Inequality Measures by Social Group**

Indicator	SC	ST	OBC
Top 20% / Bottom 20% income ratio	2.8	3.1	2.4
Gini Coefficient	0.34	0.37	0.32

**Interpretation:**

Income inequality is highest among ST households, reflecting uneven access to income-generating opportunities.

**Table 4.6: ANOVA Test – Difference in Mean Household Income**

Source of Variation	Sum of Squares	df	Mean Square	F-value	Significance
Between groups	$1.92 \times 10^{10}$	2	$9.6 \times 10^9$	6.45	<b>p &lt; 0.01</b>
Within groups	$2.89 \times 10^{11}$	197	—	—	—

**Result:**

The ANOVA result indicates a **statistically significant difference** in mean household income among SC, ST and OBC groups.

**Table 4.7: Chi-Square Test – Social Group and Poverty Status**

$\chi^2$ Value	df	Significance
9.82	2	<b>p &lt; 0.05</b>

**Result:**

There is a **significant association** between social group and poverty status, confirming social-group-based economic inequality.

## 5. Key Findings and Discussion

This section synthesizes the major empirical findings derived from the primary household survey and discusses them in the context of existing literature. The analysis focuses on comparative livelihood and income patterns, social-group-based disparities and vulnerabilities, and the effectiveness of welfare schemes at the household level in Nuapada district.

### 5.1 Comparative Livelihood and Income Patterns

The survey findings reveal clear differences in livelihood strategies and income levels among SC, ST and OBC households. SC households are predominantly engaged in agricultural wage labour and casual non-farm work, reflecting high levels of landlessness and limited access to productive assets. Their income is largely seasonal and irregular, making them highly dependent on public employment programmes such as MGNREGA for income stabilization. ST households rely mainly on subsistence cultivation, forest-based activities, and seasonal migration. This dependence on climate-sensitive livelihoods exposes them to higher income volatility and food insecurity, particularly during drought years.

In contrast, OBC households exhibit relatively diversified livelihood patterns, with greater participation in cultivation, self-employment, and informal trade. This diversification contributes to higher average income levels among OBC households compared to SC and ST households. However, the predominance of informal employment across all groups indicates structural constraints in the local economy, limiting opportunities for stable and upward income mobility. These findings are consistent with earlier studies highlighting the concentration of disadvantaged social groups in low-productivity and insecure occupations in backward regions (Deshpande, 2011; Kijima, 2006).

### 5.2 Social-Group-Based Disparities and Vulnerabilities

The comparative analysis underscores pronounced social-group-based economic disparities in Nuapada district. ST households emerge as the most economically vulnerable group, characterized by the lowest mean income, highest poverty incidence, and greater income inequality. Insecure land tenure, geographical isolation, and

limited access to institutional credit exacerbate their economic vulnerability. SC households also experience significant deprivation due to widespread landlessness, dependence on wage labour, and limited occupational mobility.

While OBC households are relatively better positioned, the study reveals considerable intra-group variation, with a substantial proportion remaining close to the poverty line. Land fragmentation, low agricultural productivity, and limited access to modern inputs constrain income growth even among better-off OBC households. These patterns reflect the persistence of structural inequalities rooted in historical social exclusion and reinforced by regional backwardness, as noted in previous empirical research (Thorat & Newman, 2010).

### 5.3 Effectiveness of Welfare Schemes at the Household Level

Government welfare schemes play a crucial role in mitigating extreme economic distress among SC, ST and OBC households in Nuapada district. The study finds that programmes such as MGNREGA and the Public Distribution System (PDS) provide essential income and food security support, particularly for SC and ST households. Housing assistance under PMAY-G has contributed to asset creation and improved living conditions for beneficiary households.

However, the effectiveness of welfare schemes at the household level remains uneven. Delays in wage payments, limited awareness, and administrative bottlenecks reduce the potential impact of these programmes. For ST households, geographic remoteness and tenure-related issues further limit access to scheme benefits. While welfare interventions have succeeded in reducing short-term vulnerability, they have not significantly transformed livelihood structures or reduced long-term income inequality. This finding aligns with broader evidence that welfare schemes in backward regions often function as safety nets rather than drivers of sustained economic mobility (Planning Commission, 2014).

### Discussion Summary

Overall, the findings highlight that economic outcomes in Nuapada district are shaped by the interaction of social identity and regional disadvantage. SC and ST households face deeper and more persistent vulnerabilities compared to OBC households, despite the presence of multiple welfare schemes. The results emphasize the need for integrated policy approaches that combine income support with livelihood diversification, asset creation, and institutional inclusion to achieve sustainable and inclusive development.

## 6. Conclusion and Policy Implications

### Conclusion

- The study reveals significant economic disparities among SC, ST and OBC households in Nuapada district.
- ST households are the most economically vulnerable, followed by SC households, due to low income, high poverty incidence, and insecure livelihoods.
- OBC households exhibit relatively better economic conditions, but a sizeable proportion remains vulnerable because of informal employment and low agricultural productivity.
- Livelihoods across all social groups are largely concentrated in agriculture, wage labour, and informal activities, indicating limited economic diversification.
- Government welfare schemes provide essential short-term support but have limited impact on long-term income enhancement and livelihood security.



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### Policy Implications

- **Livelihood Diversification:** Promote non-farm employment, skill development, and rural enterprises to reduce dependence on low-income agricultural labour.
- **Land and Tenure Security:** Strengthen land rights and tenure security, particularly for ST households, to improve access to credit and government support.
- **Improved Scheme Implementation:** Ensure timely wage payments, better awareness, and effective monitoring of welfare schemes at the grassroots level.

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