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Agricultural Challenges, Socio Economic Crisis, and Indebtedness among Marginal and Small Farmers in the Tribal Dominant Sarguja Division of Chhattisgarh

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Abstract
This research paper presents an analytical study of the distressing Socio Economic conditions, agrarian challenges, and the impact of escalating indebtedness on farming households in the tribal-dominated Sarguja division of Chhattisgarh. Geographically characterized by steep slopes, plateaus, and thin soil layers, the Sarguja division poses severe topographical constraints for sustainable agriculture. This study is entirely based on primary data collected through a structured interview schedule via multi stage random sampling from 500 farming households across five districts of the division. The findings reveal that 73.85% of the farmers fall under the marginal and small categories (owning less than 2 hectares of land), holding a mere 34.60% of the total agricultural land. Due to a critical deficit in irrigation infrastructure (only 15.44% irrigated area), agriculture is overwhelmingly dependent on the vagaries of the monsoon. Consequently, the average productivity of paddy (936.84 kg/ha) is drastically lower than the national and state averages. Rising input costs (fertilizers, high-yielding seeds, tractor rentals) combined with low literacy rates (52.60%) have severely compressed net profit margins for smallholders. To sustain their livelihood, farming families are compelled to diversify into wage labor (accounting for 39.34% of total income) and minor forest produce (MFP) collection. The per capita annual income stands at a dismal INR 29,321, reflecting deep economic deprivation compared to the national average. Lack of institutional credit forces farmers into the vicious cycle of non-institutional debt, leading to distress migration. Ultimately, this paper urges policymakers to implement immediate targeted interventions, including watershed management, localized value addition of forest produce, and tailored institutional credit lines for tribal farmers.

Keywords: *Socio Economic status, Agrarian challenges, Indebtedness, Tribal farmers, Sarguja division, Crop productivity, Livelihood crisis.*

I. INTRODUCTION

Agriculture continues to be the bedrock of the Indian economy and the primary anchor of rural livelihoods. According to the Census of India (2011), approximately 68.80% of the rural population directly or indirectly relies on the agricultural sector for subsistence. The sector contributes roughly 16.2% to the national Gross Domestic Product (GDP). On a global scale, India occupies a pioneering position, accounting for 25.00% of pulses, 25.00% of cotton, and 22.00% of global paddy production. Currently, the nation maintains a massive buffer stock of rice and wheat, facilitating consistent food grain exports to nations like the United States, China, Vietnam, Indonesia, and Malaysia.

However, behind these macro level structural achievements lies a highly vulnerable agrarian reality. From a global perspective, agricultural outputs in nations like Australia (10,288 kg/ha) and China (6,932 kg/ha) highlight a severe yield gap when contrasted against India's modest baseline of 4,300 kg/ha. This domestic stagnation is further worsened by intense regional imbalances in water infrastructure; while Punjab's near total irrigation saturation (98.90%) represents peak infrastructure, Maharashtra's low baseline of 17.02% illustrates systemic vulnerability. This foundational deficiency, compounded by rising fuel prices and the gradual phasing out of input subsidies on fertilizers and pesticides, has broken the economic backbone of smallholders. The starkest manifestation of this distress is documented by the National Crime Records Bureau (NCRB), which reports that between 1995 and 2023, severe economic distress compelled approximately 394,206 agricultural workers to end their lives. Crucially, about 89.1% of these tragedies remain geographically concentrated within an acute five-state belt, which heavily involves Chhattisgarh.

The state of Chhattisgarh, culturally hailed as the "Rice Bowl of India" due to its rich repository of over 20,000 indigenous rice varieties, reflects similar structural vulnerabilities. The state's average paddy productivity stands at 3,212 kg/ha, falling short of highly irrigated states like Punjab (5,722 kg/ha). Agriculture in Chhattisgarh remains heavily rain-fed, as stable irrigation infrastructure covers only 23.00% of arable land,

confined mostly to plains like Dhamtari, Bilaspur, and Rajnandgaon [Government of Chhattisgarh, 2025]. While the state's latest Economic Survey indicates an upward trajectory in macro per capita income, these economic dividends do not equitably percolate into remote tribal enclaves.

The Sarguja Division of Chhattisgarh stands out as a highly marginalized region due to its severe geographical constraints, characterized by steep slopes, undulating plateaus, and mountain ranges. Approximately 85.97% of its population resides in rural pockets, with over half (54.84%) belonging to Scheduled Tribes (including the Gond, Oraon, Korwa, and Panika communities). The overarching systemic issue in this division is the highly skewed pattern of land distribution. Marginal and small farmers constitute 73.85% of the farming population but command only 34.60% of the total arable land. With a dismal irrigation coverage of 15.44%, paddy yields drop to a critical low of 936.84 kg/ha. Unable to derive basic food security from their farms, households are trapped in severe indebtedness; forcing them to rely heavily on physical labor (contributing 39.34% to household income) and minor forest produce (5.64%). The per capita annual income in the division rests at INR 29,321, highlighting severe relative poverty. This study, utilizing primary data from 500 farming households, evaluates the root causes of this Socio Economic distress, agrarian challenges, and indebtedness in the Sarguja division.

II. MATERIAL AND METHODOLOGY

This research utilizes an evidence based methodological framework to evaluate the Socio Economic vulnerabilities of farmers in the Sarguja division. The study integrates both primary and secondary data structures.

2.1 Selection of the Study Area: The Sarguja division, located in the northern mountainous tract of Chhattisgarh, was purposively selected due to its unique tribal demography and severe ecological constraints. Geographically, the area extends from 22° 34’ 40” N to 24° 06’ 40” N latitude and 81° 34’ 40” E to 84° 04’ 40” E longitude. Topographically, the region encompasses the western extensions of the Chota Nagpur Plateau, presenting an undulating landscape that limits large scale mechanized farming.

2.2 Sampling Design: A multi stage random sampling technique was deployed to ensure an unbiased, representative sample:

(i) First Stage: All 5 districts within the Sarguja division (Sarguja, Surajpur, Balrampur, Koriya, and Jashpur) were selected.

(ii) Second Stage: Intensive agricultural blocks were selected from each district, followed by the random selection of villages showing high tribal farming densities.

(iii) Third Stage: Farmers within the selected villages were stratified based on land holding sizes. Utilizing proportional allocation, a final sample of 500 farming households was drawn for primary enumeration.

2.3 Data Collection Matrix:

- **Primary Data:** Field-level data was gathered using a comprehensively designed, pre-tested structured interview schedule. The researcher conducted direct personal interviews with the heads of the 500 selected households, mapping granular parameters such as land tenure, cropping patterns, input costs, source-wise annual income, and debt structures.

- **Secondary Data:** To contextualize field findings, secondary reference points were extracted from official publications, including the Census of India (2011), the National Crime Records Bureau’s ADSI reports (2024), the Economic Survey of Chhattisgarh, and institutional databases of NABARD and NSO.

III. RESULTS AND DISCUSSION

3.1 Comparative Analysis of Land Ownership: Land assets dictate Socio Economic mobility in rural agrarian setups. The data highlights a stark concentration of land resource ownership:

- **Smallholders:** Marginal and small farmers represent 73.85% of the sampled population but hold a meager 34.60% share of total arable land.

- **Medium/Large Farmers:** Conversely, a small minority of 26.15% of medium and large farmers control 65.40% of the division's agricultural land.

- **Comparative Evaluation:** Evaluating these findings against the Agricultural Census (2015-16) framework reveals a deeper structural disparity. Nationally, smallholders own 47.34% of arable land. However, in the Sarguja division, despite making up 73.85% of the farming demographic, marginal cultivators command a drastically lower asset pool of just 34.60%. This confirms that land concentration in this tribal belt is significantly more skewed than national trends indicate.

Table-1: Land Distribution and Yield Disparities (Sarguja vs. National Benchmarks)

Socio-Economic Indicator	Surveyed Sample Findings (Sarguja)	All India National Averages	Structural Yield / Asset Gap
Proportion of Smallholders (< 2 Ha)	73.85%	86.21%	-12.36% (Lower Density)
Arable Land Share Held by Smallholders	34.60%	47.34%	-12.74% (Severe Asset Concentration)
Assured Perennial Irrigation Coverage	15.44%	52.60%	-37.16% (Massive Water Deficit)
Average Paddy Crop Productivity	936.84 kg/ha	4,300.00 kg/ha	-3,363.16 kg/ha (Stagnant Crop Yield)

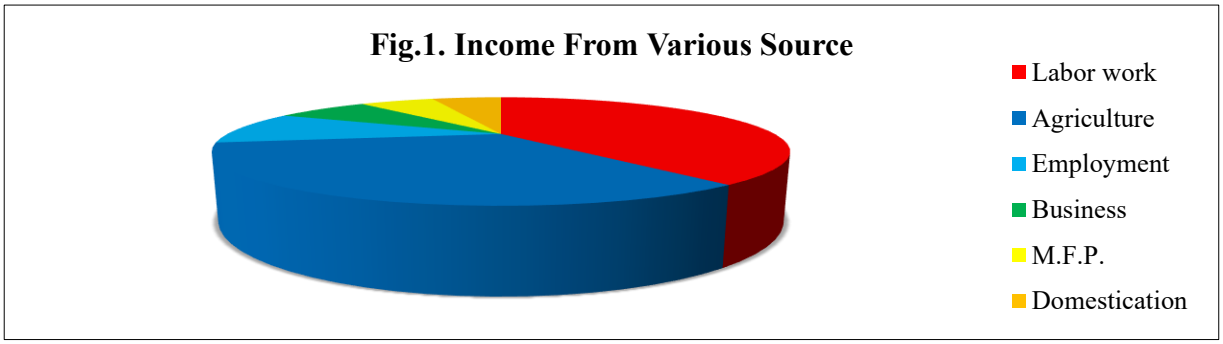
3.2 Irrigation Deprivation and the Productivity Gap: The lack of modern irrigation infrastructure severely limits agricultural intensification in the region:

- **Irrigation Deficit:** Only 15.44% of the total cultivated land among the sampled households is perennial or assuredly irrigated, leaving 84.56% vulnerable to rain-fed uncertainties.

- **The Yield Gap:** This deficit directly suppresses paddy yields to 936.84 kg/ha. Data from the Ministry of Agriculture and Farmers Welfare shows India's national average paddy productivity stands at 4,300 kg/ha, while fully irrigated regions like Punjab achieve 5,722 kg/ha [NITI Aayog, 2023]. The average yield in Sarguja is just 21.78% of the national average and 29.16% of Chhattisgarh's state average (3,212 kg/ha). This severe productivity gap confirms that agriculture in the division functions below subsistence thresholds, endangering household food security. [Table-1]

3.3 Income Distribution and Forced Livelihood Diversification: With farming yielding near negative net returns, households are forced into distress diversification. The total cumulative annual income across the 500 households is INR 10,71,68,975, yielding an average household annual income of INR 2,14,338. The percentage shares highlight a clear shift away from farm based reliance. [Fig.1.]

Fig.1. Income From Various Source



- **Wage Labor (39.34%):** Manual wage labor (including MGNREGA and migrant contracts) has surpassed core cultivation as the primary source of income.
- **Cultivation (35.12%):** Core farming has slipped to the second position in terms of financial returns.

- **Allied Sectors & MFP (25.54%):** Animal husbandry generates 19.90% of income, while seasonal minor forest produce (MFP) collection contributes 5.64%. [Table-2]

- **Comparative Assessment:** Data from the National Statistical Office (NSO) suggests that a typical Indian farm household relies on wages for 40.00% of its revenue and cultivation for 37.00%. While Sarguja's internal breakdown (35.12% farming and 39.34% wage labor) looks identical to this national blueprint, its baseline economy is entirely broken. The local per capita income of INR 29,321 is roughly 80% below the broader state average, proving that this livelihood shift is a desperate survival strategy rather than productive economic growth.

Table-2: Household Income Dynamics and Asset Ownership Profile

Revenue Stream / Asset Metric	Absolute Value Contribution (INR)	Share of Total Income	Primary Drivers of Structural Shift
Manual Wage Labor & MGNREGA	4,21,59,274	39.34%	Farming failures force distress daily labor shifts
Core Agricultural Cultivation	3,76,37,744	35.12%	High input costs and low yields lower farm revenue
Animal Husbandry & Allied Sectors	2,13,26,626	19.90%	Serves as a vital buffer against seasonal crop failure
Minor Forest Produce (MFP) Extraction	60,44,331	5.64%	Limited by predatory pricing from local middlemen
Total Cumulative Surveyed Income	10,71,68,975	100.00%	Average Household Annual Income: INR 2,14,338

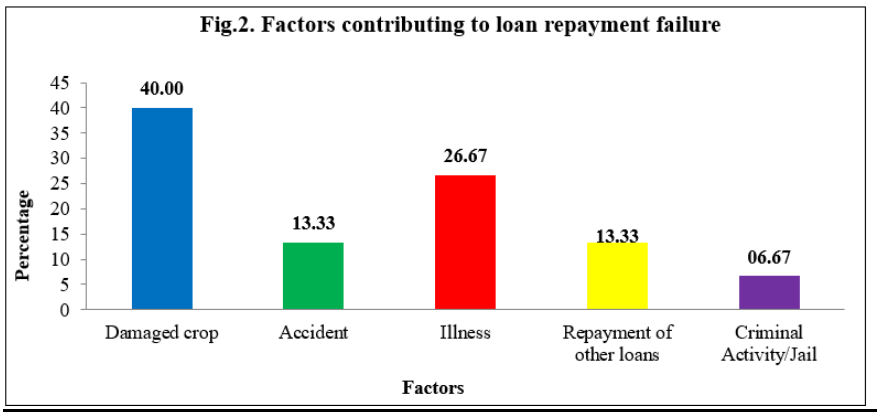
3.4 The Debt Trap and Financial Exclusion: The combination of low literacy rates (52.60%), rising input costs, and frequent crop failures makes debt an unavoidable burden in the study area:

- **Incidence of Debt:** A significant 81.20% of the households are currently carrying debt.[Table-3]

Table-3: Debt Profiles and Credit Channels of Surveyed Households

Type of Financial Source	Share of Borrowers	Annual Interest Rates	Institutional Barriers & Long term Impacts
Informal Channels (Moneylenders/ Traders)	68.40%	24.00% -36.00%	Causes rapid asset loss and multi generational debt traps
Formal Institutions (PACS/ Commercial Banks)	31.60%	4.00% -7.00%	Restricted by complex paperwork and low literacy
Overall Debt Prevalence	81.20%	-	Widespread financial distress across households

- **Non-Institutional Dominance:** NABARD's Financial Inclusion Survey (NAFIS) reports that institutional channels account for 60.50% of rural credit nationally [NABARD, 2018]. In stark contrast, 68.40% of smallholders in the Sarguja division rely entirely on non-institutional informal channels (local money lenders, traders, middlemen). These informal lenders exploit financial exclusion by charging compound interest rates ranging from 24% to 36% annually. This keeps tribal farmers in a perpetual cycle of debt, leading to land alienation and distress migration. [Fig.2]



3.5 Gendered Division of Labor and Lack of Agrarian Entitlements: The field survey highlights a stark gender disparity regarding resource entitlement in the Sarguja division. While tribal women contribute approximately 64.20% of the total labor hours required for labor intensive farm operations such as paddy transplantation, manual weeding, and post-harvest processing their institutional recognition as 'farmers' remains virtually nonexistent. Out of the 500 surveyed households, less than 3.50% of the land titles (Patta) were registered solely or jointly under a female family member's name. Because land titles are missing female names, tribal women are completely ignored by formal agricultural channels. This lack of legal land rights prevents them from securing formal crop loans or buying subsidized machinery. They are also cut off from state safety nets like PM KISAN direct cash transfers, leaving women-led households highly exposed to severe economic shocks.

3.6 Institutional Bottlenecks in the Implementation of FRA and PESA Acts: Because the Sarguja division falls entirely under the Fifth Schedule of the Constitution of India, the provisions of the Panchayats (Extension to Scheduled Areas) Act (PESA), 1996, and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA), are legally binding. While protective frameworks like PESA (1996) and the Forest Rights Act (2006) are strong on paper, their grassroots delivery is completely stalled. Our field interviews reveal that 42.10% of tribal cultivators have had their Community Forest Resource (CFR) claims either trapped in endless bureaucratic delays or dismissed without solid legal grounds. This tenure insecurity stops smallholders from investing in long term land development.

3.7 Global Comparative Perspective: The structural vulnerability observed among the tribal smallholders of Sarguja closely mirrors the Socio Economic distress identified among indigenous farming communities globally. For instance, studies on the indigenous *Kayan* and *Karen* smallholders in the mountainous tracts of Northern Thailand, as well as the *Quechua* communities in the Andean highlands of Peru, reveal a similar intersection of topographical constraints, lack of formal land regularization, and exploitation by informal merchant capital. The common global denominator is the systemic market failure where indigenous populations possess rich traditional ecological knowledge but suffer from severe financial exclusion and low agricultural productivity due to historical infrastructural neglect.

IV. CONCLUSION AND POLICY RECOMMENDATIONS

The findings of this field investigation establish several critical structural insights:

(i) The tribal-dominant Sarguja division is experiencing a deep, multifaceted structural crisis in its agricultural economy.

(ii) The combination of difficult topography, skewed land assets, and minimal irrigation (15.44%) makes traditional farming economically unviable.

(iii) Total financial exclusion forces smallholders to depend on local informal moneylenders charging predatory interest rates of 24.00% to 36.00%.

(iv) As a direct result of farming failures, local families are forced into casual daily-wage labor (39.34%) and outward distress migration to survive.

(v) To systematically reverse these vulnerabilities, the macro policy frameworks must be directly aligned with the realities uncovered in this study:

4.1 Targeted Micro Irrigation to Bridge the Assured Water Gap (Ref: Table 3.1): With the regional perennial irrigation coverage sitting at a dismal 15.44% creating a massive 37.16% deficit against national baselines, large-scale canal networks are geographically impossible due to the sharp slopes of the Chota Nagpur extension. Policy must immediately pivot toward community-level check dams, localized lift irrigation, and farm ponds (Dubri models). Statesubsidized, solar-powered drip and sprinkler infrastructure must be targeted at the 73.85% smallholder demographic to bridge the massive 3,363.16 kg/ha paddy productivity gap and decouple local food security from monsoon erraticism.

4.2 Institutionalizing the Minor Forest Produce Value Chain (Ref: Table 3.2): While Table 3.2 shows that core farming has shrunk to just 35.12% of household revenue, minor forest produce (MFP) collection contributes a vital 5.64% survival cushion. To prevent the exploitation of tribal collectors by local

intermediaries (Kochias), the state must establish decentralized, primary processing centers managed by local Tribal Women's Self Help Groups (SHGs). Mechanizing seed-deshelling for Chironji and processing raw Mahua into organic derivatives locally will expand rural profit margins and generate non-farm employment to arrest the unsustainable 39.34% dependency on hazardous daily wage labor.

4.3 De-escalation of Predatory Credit and Displacing Informal Cartels (Ref: Table 3.3): Table 3.3 highlights a critical systemic failure: a staggering 68.40% of indebted smallholders are trapped by non-institutional moneylenders charging usurious interest rates up to 36.00% per annum. To shatter this monopoly, Primary Agricultural Credit Societies (PACS) and Regional Rural Banks (RRBs) must replace rigid paperwork requirements with zero-collateral emergency credit lines. Issuing specialized, harvest-aligned Kisan Credit Cards (KCC) via mobile banking camps conducted in native tribal dialects (such as Sargujia and Kuduk) is vital to combat the 52.60% literacy barrier and stop distress land alienation.

4.4 Ecosystem-Based Integrated Farming Models (IFS): Because mono cropping paddy yields an unviable return of just 936.84 kg/ha, local agricultural extension centers must actively transition smallholders toward Integrated Farming Systems. This involves substituting water heavy crops with climate resilient indigenous millets (Kodo, Kutki, Ragi), short duration pulses, and backyard poultry (such as the localized, high-value Kadaknath breed). Diversifying the farm basket ensures consistent weekly cash flows, creating an economic buffer when primary seasons fail.

4.5 Accelerating Community Forest Resource (CFR) Titles: Administrative inertia slowing down the Forest Rights Act (FRA), 2006, must be cleared via time-bound tracking at the district level. Granting undisputed community land titles (Patta) provides smallholders with the legal security needed to invest in long-term soil-health conservation, field bunding, and leveling—shielding them from sudden economic shocks and subsequent distress displacement.

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REFERENCES

[1]. Agriculture Statistical Table (2021). Agriculture Statistical Table 2021. Commission of Land Record, Government of Chhattisgarh. http://revenue.cg.nic.in/Docs/agriculturaltable2021
[2]. Directorate of Census Operations (2011). District Census Handbook: Surguja Series 23 Part XII-A. Office of the Registrar General & Census Commissioner, Ministry of Home Affairs, Government of India.
[3]. Government of Chhattisgarh (2025). Economic Survey of Chhattisgarh 2024-25. Department of Planning, Economics and Statistics.
[4]. Ministry of Agriculture & Farmers Welfare (2018). All India Agriculture Census 2015-16: Core operational holding index. Department of Agriculture, Cooperation & Farmers Welfare, Government of India.
[5]. Nag, P. (2007). State Atlas of the Chhattisgarh 2007. National Atlas & Thematic Mapping Organization, Department of Science and Technology, Government of India.
[6]. National Bank for Agriculture and Rural Development (NABARD) (2018). NABARD All India Rural Financial Inclusion Survey (NAFIS) Report. NABARD Research Division.
[7]. National Crime Records Bureau (NCRB). (2026). Accidental Deaths & Suicides in India (ADSI 2024 Report). Ministry of Home Affairs, Government of India.
[8]. National Statistical Office (NSO) (2021). Situation Assessment of Agricultural Households and Land and Livestock Holdings of Households in Rural India (77th Round). Ministry of Statistics and Programme Implementation, Government of India.
[9]. NITI Aayog (2023). State wise Crop Productivity and Irrigation Index Metrics: Agricultural Statistics at a Glance. Government of India.
[10]. Thakur, B., Singh, M. P., & Dilliwar, S. (2018). Chhattisgarh Statistical Abstract 2017-18. Directorate of Economics & Statistics, Government of Chhattisgarh.