Tenancy Farming and Institutional Exclusion: Agrarian Realities in Odisha

Sibabrata Choudhury[1] , Sandhya R Mahapatro[2]

Development Studies, Nabakrushna Choudhury Center for Development Studies, Bhubaneswar, Odisha, India

DOI: https://doi.org/10.51244/IJRSI.2026.1307000278

Received: 02 August 2026; Accepted: 07 August 2026; Published: 14 August 2026

ABSTRACT

Agricultural tenancy and sharecropping remain critical yet under-recognized dimensions of Odisha's agrarian economy. Despite cultivating a substantial share of farmland, tenant farmers and sharecroppers are systematically excluded from institutional credit, crop insurance, procurement systems, and welfare programs due to the absence of formal land titles. This paper synthesizes quantitative evidence from the National Sample Survey (77th Round), household surveys in coastal and tribal Odisha, and qualitative fieldwork with tenant farmers and landowners, alongside a review of policy initiatives such as the Model Agricultural Land Leasing Act (2016), the Draft Odisha Land Leasing Bill (2020), and state-level programs including KALIA and BALARAM.

A multidimensional Institutional Access Index was constructed to measure integration into formal agricultural support systems, complemented by econometric models estimating the "tenancy penalty." Findings reveal that tenant farmers are 47–50 percent less likely to access formal credit and crop insurance compared to landowners, yet paradoxically invest more in agricultural inputs due to rent pressures. Regional disparities are pronounced, with tribal districts facing deeper exclusion than coastal plains. Policy reforms have made progress in recognizing tenants, but persistent barriers—lack of tenancy records, landlord consent requirements, and weak monitoring—limit impact. The study argues for tenancy reforms that prioritize the active cultivator as the rightful beneficiary of institutional support.

Keywords: Agricultural Tenancy, Agricultural Services, Odisha, Tenancy Reforms JEL - Q15, Q18, Q12, O13

INTRODUCTION

Agriculture is the mainstay of Odisha's rural economy, providing employment to a large proportion of its population and influencing the social and cultural milieu of the state. But underneath this superficial continuity there is a radical change in land tenure and in the methods of cultivation. In the last few decades, agrarian distress, migration and fragmentation of holdings have resulted in a spurt in informal tenancy and sharecropping arrangements. Today, much cultivation is done not by the landowners themselves, but by tenants - landless or marginal households who cultivate land on the basis of oral contracts or informal arrangements. These growers are the very engine of production, although they are mostly invisible in the official statistics and excluded from the institutional architecture of agricultural support.

This dichotomy of invisibility and exclusion is not unique to Odisha, but reflects the larger structural aspects of Indian agriculture. In the past land reforms were meant to secure ownership and reduce poverty, but tenancy laws became too restrictive and pushed leasing into the shadows. This implies the persistence of tenancy in hidden forms, frequently unrecorded and unknown to official entities. Tenancy is legally prohibited in Odisha except in a few cases, but land-poor households resort to informal tenancy as a survival strategy. The continued existence of oral leases and sharecropping arrangements demonstrates the disconnect between legal structures and rural realities.

The ramifications of this disconnection are enormous. Ownership data are highly crucial for farm support programs. For example, crop insurance under Kisan Credit Card (KCC) and Pradhan Mantri Fasal Bima Yojana (PMFBY). Those without formal titles, such as tenant farmers, are systematically denied access to these benefits. This exclusion results in what experts have called a “collateral trap.” The actual tillers of the land, who bear the largest agronomic and financial risks, are locked out of the very institutions intended to reduce those risks.

The dilemma is further compounded by the economic strains of the tenancy. Bound by set cash rentals or crop-sharing responsibilities, tenants Tenants, constrained by fixed cash rents or crop-sharing obligations, must optimise yields at any cost. to squeeze out yields at any price They invest heavily in high yielding seeds, fertilisers and insecticides often thru predatory informal credit markets. Hence, the absence of institutional finance does not prevent investment but warps it, generating a cycle of vulnerability and indebtedness.

The dynamics may be seen quite clearly in the agrarian landscape of Odisha. The state has a wide range of agro-ecological zones from the irrigated commercial plains of Bargarh and Cuttack to the rain-fed tribal uplands of Keonjhar. The hardships of tenant farmers are further exacerbated by regional inequalities in infrastructure, literacy and market access. In coastal districts tenancy is linked with paddy procurement and cooperative systems. In tribal areas tenancy is based on communal land relations and is affected by efforts to safeguard tribal land from alienation. The differences emphasise the need for nuanced, region-specific policy solutions instead of monolithic statewide frameworks.

In the face of these issues, tenancy reform has begun to enter the policy discourses at the national and state levels. The Model Agricultural Land Leasing Act was a paradigm change in 2016. It sought to formalise oral agreements and to give institutional support to renters without infringing upon the rights of landowners. Odisha has continued with its initiatives, including the KALIA scheme (2018) that utilised direct benefit transfers to cover landless and tenant farmers; the BALARAM credit scheme (2020) that aimed to provide loans thru Joint Liability Groups; and procurement reforms that brought in Sarpanch certification and self-declaration forms to enable tenant participation. These indicators show a growing awareness of the active cultivator as a worthy object of official support.

But implementation has been hit and miss. KALIA’s design was inclusive, but data on tenant beneficiaries is not disaggregated, masking its impact. The framework of BALARAM was revolutionary, but uptake has trailed considerably behind objectives, with banks reluctant and field staff overstretched. Reforms in procurement have eased procedural hurdles, yet many tenants continue to be left out owing to lack of awareness, landlord approval or poor documentation. However, the Draft Odisha Land Leasing Bill (2020) seeks to further formalise tenancy, although issues of enforceability, credibility of oral leases and institutional capacity continue to linger.

In this context, this paper attempts to fill the gap between scientific evidence and policy praxis. It combines quantitative analysis of NSS data with household surveys in coastal and tribal Odisha, supported by qualitative insights from focus group discussions and stakeholder interviews. The study measures the “tenancy penalty” in access to financing, insurance and extension services by building a multidimensional Institutional Access Index and econometric models. It also analyses the paradox of input intensity, whereby tenants invest more in the face of exclusion. Finally, it contextualises these findings within the changing policy landscape, evaluating the effectiveness of changes and identifying existing gaps.

This study makes three contributions. First, it provides granular, region-specific evidence of tenancy exclusion, moving away from aggregate national records. Secondly, it combines empirical analysis with policy review and so presents a holistic view of both structural barriers and reform measures. Thirdly, it advances the notion that tenancy reform should be directed at the active grower, not the ownership record, so that rights match the real situation of cultivation.

In this way the article contributes to broader debates on agrarian change, equity and rural development. Reform of tenure is not only a technical issue of land records, but a subject of social justice and economic viability. Odisha can enhance its agricultural foundation, decrease vulnerability and promote inclusive growth through recognising and empowering tenant farmers. The findings given here emphasise the necessity of moving away from ownership-based policies towards approaches that respect the lived realities of farming.

The rest of the paper is organised as follows. The literary and policy framework is reviewed in the following part, locating tenancy within the historical and current disputes. The methodology section describes the data sources and analytical approach, including the building of the Institutional Access Index and the econometric models. The results section provides empirical evidence for institutional exclusion, input intensity, and regional differences. The findings are discussed in relation to policy actions and the triumphs and drawbacks are highlighted. Finally, the conclusion discusses the consequences for tenancy reform and agriculture policy in Odisha.

REVIEW OF RELATED LITERATURE

Agricultural tenancy has been a defining characteristic of the agrarian economy of India for long. Tenancy, from colonial land revenue systems to post-independence land reforms, has been both a survival strategy for the land-poor cultivators and a disputed site of official intervention. Initial land reforms were designed to establish property rights and allocate land to underprivileged populations, but stringent tenancy restrictions frequently forced the rental market into the shadows. Appu (1996) and Besley & Burgess (2000) find that the reforms, were intended to decrease poverty and ensure tenure security, accidentally produced a situation of "hidden tenancy" where leases persisted informally and without legal acknowledgement.

In Odisha tenancy has been moulded by the dual agrarian structures: the commercialised coastal plains and the tribal uplands traditionally. Informal arrangements have been institutionalised by legal bans on leasing and the social dynamics of caste and society. Oral leases and sharecropping contracts still abound, indicating landlords' fear of losing title and tenants' acute need for livelihoods. This structural invisibility has major consequences for access to institutions and agrarian equity.

Historical Overview

History of tenancy in Odisha is strongly related to the post-independent land reform policies of the state to demolish the exploitative agrarian connections and to guarantee greater justice in the land ownership. The Odisha Land Reforms Act (OLR Act), 1960 was a big move to control land relationship thru fixation of ceilings on landholdings, conferment of ownership rights on tenants and abolition of exploitative tenancy forms. But the Act imposed very severe limits on the leasing of agricultural property, permitting tenancy only in very exceptional instances. The regulations were intended to prevent the concentration of land and to safeguard small growers, but led to landlords and cultivators disguising tenancy agreements.

Appu (1996) found that the limited legal framework and insufficient administrative enforcement led to the persistence of informal and unrecorded tenancy practices. Oral leases, sharecropping arrangements and concealed rental contracts were popular, especially among marginal farmers, landless households and socially disadvantaged populations. Informal renters: The law did not recognise informal tenants and by law they were excluded and hence excluded from institutional support such as agricultural finance, subsidies, crop insurance and disaster compensation.

The limited success of tenancy changes in Odisha was influenced by the wider social and political backdrop, including unequal power relations between landowners and farmers, administrative constraints and the involvement of landed groups in rural governance systems. Formal ownership arrangements were changed by land reforms but unstable tenancy did not disappear. This legacy of the past: This legacy of the past is reflected in the present-day tenancy arrangements in Odisha, where informal cultivation relations co-exist with persistent institutional exclusion.

Tenancy as a Way of Life

Contemporary experts stress that tenancy is not simply a historical remnant but an evolving survival strategy. Bansal et al. (2018) and Sharma (2006) have noted that the limited legal structure has forced the tenancy into informal channels, resulting in extensive covert leasing. The tenancy problem is acute in Odisha especially among the marginalised sections like Scheduled Tribes and landless people. Swain & Das (2025) point out that tenancy is very gendered, with female headed households being disproportionately dependent on leasing due to limited ownership rights.

This survival dimension is shown in empirical investigations. The lease of land is typically not for reasons of size by tenants, but for subsistence. In coastal districts tenancy is connected with market-linked paddy agriculture, whereas in tribal areas it is embedded in community land relations and influenced by efforts to safeguard tribal land from alienation. Leasing-in is concentrated among the land-poor, while leasing-out is driven by labour constraints, migration or age. These dynamics emphasise the social embeddedness of tenancy, as an informal survival strategy, rather than as a business venture.

Exclusion from Institutions

There exists a large body of literature on the exclusion of tenant farmers from institutional support systems. The Reserve Bank of India (2019) found that the main problem for tenants and sharecroppers in getting credit was the lack of land records. Without legal titles, tenants are excluded from official banking, crop insurance and procurement processes. Ghosh (2021) and Kumar et al (2010) term this a “collateral trap” where the absence of collateral deprives renters of access to institutional financing and pushes them into exploitative informal markets.

Ramakumar and Chavan (2014) further argue that exclusion is further aggravated by regional inequities, with land-poor farmers in tribal districts facing steeper hurdles. Swain (2016) mentions that tenants are unable to use modern technology or avail the subsidised inputs due to the absence of institutional credit, which hinders production and maintains poverty. Deininger et al. (2008) suggest that limits to exclusion weaken the capacity for risk taking and exacerbate cycles of vulnerability.

But exclusion is not an obstacle to investment. Empirical data suggests that tenants must maximise yields, typically funding inputs through informal loans. The paradox of exclusion and over-investment illustrates the distortions generated by the tenancy arrangements.

Policy Shifts: From Prohibition to Acceptance

In response to these institutional shortcomings, tenancy liberalisation has become a focus of policy discussions. The Model Agricultural Leasing Act (2016) was a paradigm shift which sought to formalise oral agreements and provide institutional support to renters without endangering the rights of property owners. Haque (2001) and Saggu (2022) highlight the Act’s promise in theory, but its effectiveness depends on local ownership and trust between stakeholders.

Odisha has taken a number of steps in parallel with this transition:

- KALIA (2018): It was targeted at landless and tenant farmers based on direct benefit distributions, without any condition of land ownership.
- BALARAM (2020): Credit strategy on Joint Liability Groups and Certificates of Cultivation for loans without security.
- Procurement reforms (2018-25): Introduced the Sarpanch certification and self-declaration form to enable the participation of tenants in paddy procurement.
- Draft Odisha Land Leasing Bill (2020): formalisation of tenancy with safeguards on oral leases to SC/ST landowners.

These actions indicate a rising acknowledgement of the active cultivator as a rightful ben. But implementation issues remain. KALIA was designed as an inclusive scheme, however disaggregated data on renter recipients is still not available. BALARAM’s design was unique but adoption has been slow and banks have been reluctant. Procurement changes have lowered procedural barriers, however many tenants are still excluded owing to lack of information or landlord approval. The draft bill raised issues of enforceability, reliability of oral lease, institutional capability.

For understanding the real outreach of KALIA to tenant farmers, we further analysed district level administrative data on KALIA registrations in the districts of Cuttack and Keonjhar. The scheme was intended for landless and tenant farmers, but administrative data show that in Cuttack only 8.6% of the registered beneficiaries were classified as 'landless cultivators' and in Keonjhar it was 12.3%. Tenants may have been undercounted or they registered as owners. This difference may well be related to the requirement of Sarpanch certification, which many renters find hard to get due to landlord reticence.

To enhance tenant engagement, the government may consider accepting self-declaration as acceptable paperwork, with random verification to deter fraud. In addition, district-level implementation officials noted that outreach to tenant homes was hindered by lack of awareness and the absence of credible databases of tenant households.

Land Reform, Tenancy and Equity

But beyond efficiency, tenancy reform is primarily an issue of equity and social justice. Rao (2019) and Paltasingh et al. (2022) claim that formalisation of tenancy can increase efficiency through better input use and investment, and also serve equity goals through recognising marginalised cultivators. Even with sharecropping, security of tenure raises production and lowers vulnerability.

In Odisha, initiatives like KALIA and BALARAM are attempts to balance efficiency and equity. These are efforts to decrease marginalisation and promote inclusive growth by involving tenants in welfare and credit systems. But constraints like lack of tenancy records, landlord approval, and insufficient monitoring mean the impact is limited. The argument is that tenancy reform should be about more than legal recognition, and should also include access to cash, inputs, markets and risk mitigation.

Academic Reviews of Tenancy Reforms

Researchers on tenancy changes look at the gap between legislative intent and ground realities. Bernstein (2010) places tenancy in the wider class dynamics of agrarian change, emphasising the ways in which reforms are in dialogue with social hierarchies and power relations. Scoones (2009) argues for combining quantitative data with qualitative livelihood perspectives to represent localised realities. Yin (2018) points out the significance of case study research in connecting macro frameworks and micro contexts.

Research Design

The research design is mixed methods, combining quantitative econometric analysis, household surveys, and qualitative stakeholder engagements with a policy review. The design has a dual purpose, to measure the extent of structural exclusion that tenant farmers in Odisha confront and to place these findings within the framework of the lived reality of cultivators and the changing policy scenario. The research uses a combination of statistical precision and qualitative richness to capture both the quantitative "tenancy penalty" and the complex social fabric of tenancy arrangements.

Data Sources

The research draws upon three primary sources of data:

1. **National Sample Survey (NSS 77th Round, 2019):**
    - Unit-level microdata from 2,512 agricultural households across all 30 districts of Odisha.
    - Variables include land tenure status, operational holdings, input expenditure, and interactions with agricultural institutions (credit, insurance, extension services).
    - This dataset provides the statistical foundation for constructing the Institutional Access Index and estimating econometric models.

2. **Household Survey in Two Districts:**
   - Conducted in **Ratanpur (Cuttack, coastal plains)** and **Mahabirapasi (Keonjhar, tribal uplands)**.
   - Sample: 502 farming households (377 in Ratanpur, 125 in Mahabirapasi), including 125 tenant farmers and 87 landowners.
   - Instruments: structured questionnaires, Likert-scale statements, and dichotomous questions.
3. **Qualitative Fieldwork and Policy Review:**
   - Focus Group Discussions (FGDs) with tenant farmers, landowners, and local leaders.
   - Key Informant Interviews (KIIs) with Panchayat members, PACS officials, and agricultural officers.
   - Review of policy documents: Model Agricultural Land Leasing Act (2016), Draft Odisha Land Leasing Bill (2020), KALIA scheme, BALARAM credit scheme, and procurement reforms.
   - Workshop proceedings and stakeholder consultations between 2015–2025 were also analyzed to situate findings within broader policy discourse.

The study reviewed policy documents such as the Model Agricultural Land Leasing Act (2016), the Draft Odisha land Leasing Bill (2020), the KALIA scheme, the BALARAM loan program and procurement changes.

The findings were also placed within the broader policy discourse by reviewing the workshop proceedings and stakeholder consultations from 2015 to 2025.

Framework of Analysis

The study uses a comprehensive analytical framework consisting of quantitative econometric models and qualitative findings to explore the structural exclusion of tenant farmers in Odisha. At the heart of this concept is an Institutional Access Index, which aims to quantify the extent of integration of farming households into institutional agricultural support institutions.

The index was built using principal component analysis (PCA) and comprised three important factors, namely, access to formal financing, crop insurance, and extension services. The use of Minimum Support Price (MSP) was not analysed due to insignificant variation in the sample. Penetration was consistently low irrespective of tenure status. The index was then transformed to a 0–100 scale, allowing for a continuous measure of institutional integration that could be compared across types of farmers and areas.

The effects of tenancy on institutional access and investing behaviour were estimated by three econometric models.

First, we examined the impact of tenure status on the Institutional Access Index using an Ordinary Least Squares (OLS) regression. The dependent variable was the composite index, whereas the independent factors were tenancy status (tenant, mixed or owner), operational area and input costs. District fixed effects were included to control for geographic heterogeneity and differences in infrastructure.

Second, because the outcomes (credit, insurance and extension services) were binary, logistic regression models were specified for each institutional node. The models calculated the chance of access for tenant farmers relative to landowners, reporting odds ratios to understand exclusion probabilities in percentage terms.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VII July 2026

$$\ln\left(\frac{p_i}{1-p_i}\right) = \alpha_0 + \alpha_1 \cdot Tenant_i + \alpha_2 \cdot Area_i + \gamma \cdot District_i$$

Dependent variables: binary indicators for credit, insurance, and extension access.

Finally, the "yield pressure" conundrum was tested using an input intensity model based on OLS regression. The dependent variable here was the total expenditure on inputs in rupees. This allowed the study to capture whether tenants invest more substantially in agricultural inputs despite their exclusion from formal credit systems.

$$InputCost_i = \delta_0 + \delta_1 Tenant_i + \delta_2 Mixed_i + \delta_3 Area_i + \gamma District_i + \mu_i$$

Dependent Variable: total input expenditure (₹)

Beside the quantitative analysis, qualitative data from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) were thematically coded to capture common trends in tenancy practices, perceptions of reforms and constraints to institutional access. These qualitative findings gave a contextual depth to how exclusion is experienced at the home level and how social variables such as landlord-tenant relations, gender and community norms influence access to agricultural services. Triangulation of the quantitative and qualitative data ensured robustness and contributed to the understanding of the results.

The study also included a policy review to situate the empirical findings within the broader reform discourse. The Model Agricultural Land Leasing Act (2016) and other national frameworks were studied as were Odisha-specific initiatives like the Draft Odisha Land Leasing Bill (2020), the KALIA scheme (2018), the BALARAM credit scheme (2020), and procurement changes that took place from 2018 to 2025. Each policy was examined in terms of its ability to eliminate exclusion and to extend the institutional benefits to tenant farmers. The assessment did highlight progress, such as the recognition of tenants in welfare systems, but also deficiencies, including insufficient monitoring, landlord permission and limited awareness among growers.

DISCUSSION AND RESULTS

Institutional Exclusion: The Tenants' Penalty

Odisha's agricultural economy is hierarchically organised, as evidenced by econometric study. The access to official institutions is far worse for tenant farmers than for landowners. Regressing the Institutional Access Index on the OLS estimator, we find that pure tenants are penalised -3.798 points ($p < 0.001$) relative to pure landowners, correcting for farm size, input prices, and district fixed effects. This research indicates that exclusion is not simply a function of poverty or small holdings, but is directly related to the absence of legal property rights.

Once operational scale was controlled, mixed farmers (those that own a small parcel but lease land) revealed no statistically significant difference. Their apparent advantage owes exclusively to higher farm size and not to stronger institutional ties. The scale itself is a key predictor. Each additional unit of land operated enhances institutional access by 1.552 points ($p < 0.001$). This is to say that formal agricultural institutions are built on collateral, rewarding scale and ownership over farming.

Table 1: OLS Estimates for the Institutional Access Index

Independent Variable	Coefficient Estimate	Standard Error	p-value	Significance
Pure Tenant	–3.798	0.951	6.71e-05	***
Mixed Farmer	–0.838	0.855	0.327	ns
Total Operated Area	+1.552	0.138	<2e-16	***
Total Input Cost	+0.00008	0.00002	0.0014	**

Note: Dependent variable = Institutional Access Index (0–100). District-level fixed effects included.

Exclusion of Credit and Insurance (The Collateral Trap)

Disaggregating the composite index into its individual institutional components shows the degree of exclusion. We find that tenant farmers are 47.4% less likely to receive formal financing and 49.7% less likely to obtain crop insurance relative to landowners, conditional on land size and district, using logistic regression models.

This double exclusion is a reflection of the structural connection of credit and insurance in the policy architecture of India. Crop insurance through PMFBY is commonly coupled with institutional loans, thus tenants without collateral are immediately disqualified from both. This leaves the active cultivator without access to risk mitigation and he has to bear the full brunt of climatic and agronomic shocks.

Table 2: Logistic Regression Odds Ratios for Institutional Nodes

Institutional Service	Odds Ratio (Tenant vs Owner)	Probability Shift	Significance
Formal Credit	0.526	47.4% less likely	***
Crop Insurance	0.503	49.7% less likely	***
Extension Services	1.166	16.6% more likely	**

Extension Services: The Active Tiller Wins

Interestingly, tenants are 16.6 percent more likely than proprietors to receive extension programs. Extension personnel, unlike financial institutions, don't need land documents to give agronomic advise. Tenants under pressure to meet rent requirements actively seek current information, pest management measures, and high-yielding seed varieties. This data points to the fact that exclusion is purely legal and pecuniary, not informational. Tenants are smart economic players who invest in knowledge for maximal survival.

Input Intensity the Paradox of Yield Pressure

The OLS regression for input expenditure shows a paradox. Controlling for land size and district, pure tenants pay ₹5,617 more on agricultural inputs than land owners, while mixed farmers spend ₹4,629 more. This level of investment is a reaction to the economic realities of being a tenant. Landowners can afford low input farming if they lack rents to pay. But tenants must maximise yields to satisfy fixed cash rents or sharecropping quotas, driving them into high-input tactics.

Table 3: OLS Estimates for Agricultural Input Intensity

Independent Variable	Coefficient Estimate (₹)	Standard Error	p-value
Pure Tenant	+5,617.8	840.2	2.98e-11
Mixed Farmer	+4,629.9	757.1	1.16e-09
Total Operated Area	+1,648.7	117.2	<2e-16

Note: Dependent variable = Total Input Cost (₹). District-level fixed effects included.

This evidence runs counter to the prevalent understanding that financial exclusion leads to stagnation. Instead, exclusion warps investment behaviour, forcing tenants into predatory informal credit markets. The main financiers are local moneylenders and input dealers, at very high rates. This means that tenants pay more and are exposed to more risk, continuing cycles of vulnerability.

Endogeneity Concerns

To alleviate potential endogeneity problems stemming from unobserved factors that could affect both tenancy status and access to institutions, we estimated instrumental variable (IV) models utilising the share of tenant

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VII July 2026

households in the village as an instrument for individual tenancy status.

The validity of the instrument was established using the Sargan test for overidentifying limitations ($p > 0.10$). The results of the IV models supported the direction and severity of the tenancy penalty, with pure renters seeing a drop of 4.2 points in the Institutional Access Index (p 0.001), in line with the estimates from OLS. In addition, we performed robustness checks by utilising propensity score matching to compensate for selection bias in tenancy status, which produced consistent results. Multicollinearity tests indicated that the variance inflation factor for each variable was less than 3.0, suggesting that multicollinearity was not a concern.

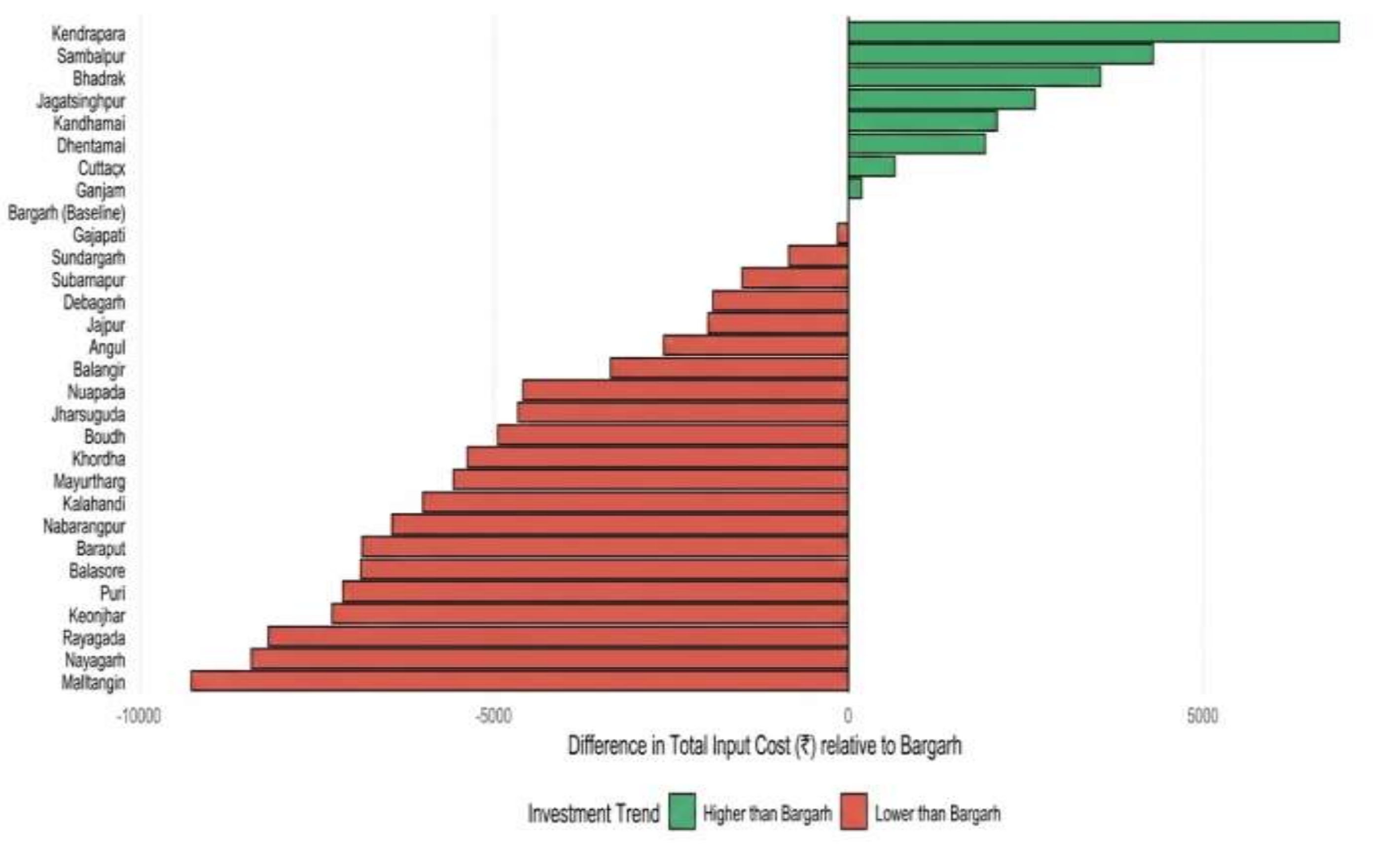
Geographical Disparities: Coastal Vs Tribal Odisha

District-level fixed effects highlight striking regional differences. Cuttack, located in the lush coastal plains, has input expenditure similar to the state's "Rice Bowl" Bargarh. Farmers work in a commercialised atmosphere with greater market linkages and banking facilities.

In contrast, a statistically significant decrease in input expenditure by ₹7,283 in the tribal highland district of Keonjhar compared to Bargarh ($p=0.001$) is observed. This reflects both geographical remoteness and institutional marginalisation. Keonjhar tenants are double penalised: no formal finance and cultivating in an institutional desert.

The differences are indicative of the limitations of unified state-wide regulations. Reforms meant for the coastal districts typically flounder in tribal areas, where structural impediments are more entrenched and the institutional presence less robust.

Figure No. 1: Regional Variations in Input Intensity



Results of the field survey: Tenancy practices and exclusion

Econometric findings are supplemented with qualitative insights from household surveys in Ratanpur (Cuttack) and Mahabirapasi (Keonjhar).

Most tenancy agreements are oral, seasonal and socially witnessed rather than legally registered. In Ratanpur, sharecropping usually involves a 50-50 split, while in Mahabirapasi, leasing is guided by community standards.

Leasing-in motives are survival orientated. 86.6% of tenant households in Ratanpur led by men are marginal or small farmers and 60% in Mahabirapasi are fully landless. For nearly 80 per cent of tenants, survival was the main driver. Not one mentioned scale efficiency.

Reasons for leasing-out are generally owing to labour difficulties, caused by migration or ageing, rather than rent-seeking.

Credit exclusion is hard. Only 11.2% of tenants borrowed formal credit, which was 0% in Mahabirapasi.

The exclusion of subsidised fertilisers or pesticides was found to be acute in tribal communities, as none of the renters in tribal areas reported receiving subsidised fertilisers or pesticides.

Gender vulnerabilities are strong. Women-headed tenant households rent similar areas, but possess almost no land: an average of 0.4 acres in Ratanpur and 0.2 acres in Mahabirapasi. And their absence from financing and assistance makes them much more vulnerable."

The stark gender inequalities in land ownership and access to institutions highlighted by this study point to the need for gender-responsive tenancy reform. The Draft Odisha Land Leasing Bill (2020) incorporates joint titling and recognises women's rights in tenancy contracts, but the implementation has been slow. To promote gender equality, the government should make sure that the registration of tenancies expressly recognises women's cultivation rights, provide for joint leases where women are engaged in cultivation and launch awareness campaigns targeting women farmers.

Schemes such as KALIA and BALARAM should also collect gender-disaggregated data on tenant beneficiaries for the purpose of monitoring women's access. Women also encounter extra difficulties in the form of the need for Sarpanch certification, a role often occupied by men, and consideration should be given to alternatives such as self-declaration, with community validation. Tenancy reform in Odisha must have gender equity as an explicit goal, addressing both productivity and social justice goals.

What Stakeholders Think About Tenancy Reforms

Landlords and tenants alike are reluctant to formalise tenancy by means of written contracts. More than half of the landowners (55.17%) do not believe that written agreements would increase their security, mostly because they are concerned that such documents could ultimately be utilised to assert claims of occupancy or ownership.

Majority of the tenants (58.40%) felt that the legal tenancy agreement might put pressure on the long existing relation between the tenants and the land owners. They worry that legal contracts could lead to conflict and jeopardise their access to leased land.

A majority of landowners (67.82%) and renters (72.00%) prefer mutual negotiations of tenancy arrangements over government specified regulations. They prefer to negotiate rent, lease term and other conditions informally, which speaks to the importance of trust and flexibility in the area.

Tenants are not optimistic about the potential of tenancy reform. Only 6.40% believe a new rule on land leasing will allow farmers direct access to government aid like crop insurance, subsidised inputs and other benefits for agriculture. This testifies to a general suspicion that reforms will be successfully carried out.

The unwillingness of landowners to formalise tenancy arrangements indicates the larger power ties that drive agrarian interactions in Odisha. In most villages, the landowning castes are dominant and wield economic and political power, while the tenant castes are marginalised; these include the Scheduled Castes and the Scheduled Tribes. This disparity has consequences not only for tenancy arrangements, but also for access to institutions and the distribution of public resources.

The landholders' fears that written contracts could be used to establish occupation rights should be understood in light of the past fights of land reform, where tenants have organised to assert ownership. The desire of tenants for informal agreements, in contrast, is an indication of their vulnerability and the fear of losing access to leased land if they insist on formalisation. The political economics research indicates that tenancy reform should not only get legal legitimacy but also tackle the structural power inequalities that determine landlord-tenant relations. Organisations like co-operatives and unions may be necessary to bolster the collective bargaining power of tenants to turn legal rights into effective entitlements.

DISCUSSION

Structural Elements of Exclusions from Tenancy

The findings establish the structural rather than accidental character of tenancy exclusion in Odisha. The econometric results indicate that tenant farmers are heavily penalised in terms of access to financing and insurance after controlling for farm size and input prices. This exclusion is not merely a function of poverty or small landholdings but is inextricably linked to property-based entitlements embedded in the architecture of agricultural policy in India. The "collateral trap" illustrates how formal institutions are layered on property rights, progressively excluding growers without legal titles.

This structural exclusion echoes wider disputes within agrarian political economics. Bernstein (2010) contends that agricultural change is not just a question of individual circumstances, but also of class dynamics and institutional architecture. Tenancy exclusion in Odisha is a representation of the persistence of ownership-centric paradigms that do not recognise the reality of cultivation. The active tiller is the base of production but unseen in policy frameworks prioritising landowners.

There are echoes of bigger disputes within agrarian political economy to this structural exclusion. Bernstein (2010) argues that agrarian development is a matter not only of individual circumstances but also of class dynamics and institutional architecture. In Odisha, the non-inclusion of tenancy is a mirror of the prevalence of ownership-based systems that do not acknowledge the realities of cultivation. But the active tiller, the backbone of production, is unseen in legislative frameworks that promote landowners.

Paradox of Input Intensity

One of the most striking results is the paradox of the input intensity. Tenant farmers barred from formal finance invest less on agricultural inputs than landowners. It's a highly aggressive investment, but it's about survival. Fixed cash rentals and sharecropping responsibilities force tenants to maximise returns at all costs. This paradox runs counter to the popular understanding that exclusion leads to stagnation. But exclusion twists investment behaviour, and tenants are forced into predatory informal credit markets.

This means that tenants are not inert victims of exclusion but active economic agents responding sensibly to the requirements of survival. But their reliance on informal financing locks them into cycles of debt and vulnerability. Solutions that don't acknowledge this dilemma are bound to misfire.

The data also show major regional differences. In terms of service ecologies, commercially more developed districts like Cuttack have better market linkages and institutional presence. However, tribal districts like Keonjhar are institutional deserts, where exclusion is accentuated by geographical isolation and administrative marginalisation. In these areas, tenants are doubly penalised, excluded from formal finance and farmed in surroundings of insufficient institutional infrastructure.

These differences highlight the difficulties of one size fits all policy across the state. Reforms conceived in the coastal districts often fall flat in the tribal belt, where structural impediments run deeper. This is consistent with Scoones (2009) who promotes context specific techniques with livelihood perspectives. Considering the regional realities and special problems of tribal cultivators, Odisha needs to modify tenancy.

Policy Gaps and Innovation in the Implementation

Odisha's policy innovations – KALIA, BALARAM, procurement reforms and the Draft Land Leasing Bill – represent a big step toward tenant recognition. KALIA was built with landless and tenant farmers in mind with direct benefit transfers to avoid ownership requirement. Balaram took the lead to develop joint liability entities and certificates of cultivation to provide collateral free lending. The reforms in procurement eliminated procedural impediments thru certification by the Sarpanch, and self-declaration forms. The proposed bill sought to regularise tenancy (including oral lease) with safeguards for SC/ST land owners.

The gaps indicate a disconnect between the legislative aim and the reality on the ground." Haque (2001) and Saggu (2022) argue that tenancy reforms can only be successful when local stakeholders trust and adopt them. Odisha's reforms have brought about more opportunity for inclusion but structural hurdles persist.

Tenancy reform is emphasised in the wider literature as an efficiency and equity problem. Tenure security increases investment and hence productivity, and by recognising the marginalised growers it creates equity. Rao (2019) and Paltasingh et al. (2022) argue that formalisation of land tenure is to improve the utilisation of inputs and land in the interest of social justice.

Reforms thus have to balance efficiency and equity and recognise tenants as legitimate benefactors without putting the rights of landowners at risk.

Policy Implications

There are several policy implications of the findings:

- Transfer entitlements from ownership to stewardship Policies should recognise the active tiller as the appropriate beneficiary of loans, insurance and subsidies. Ownership structures reinforce exclusion.
- Strengthen capacity for implementation. Programs like BALARAM need a stronger institutional support system including incentives for banks and appropriate staffing at the grassroots level.
- Increase transparency and reporting. Programs like KALIA should publish disaggregated statistics on the tenant recipients for the sake of evaluation and accountability.
- Customise reforms to the geographical environment. Tribal districts need methods tailored to their geographic remoteness and institutional deserts.
- Tackle gender inequalities. Reforms in tenancies must include clear provisions for female-headed households and equal access to land and institutions.
- Blend in informal behaviours. Oral leases remain common. Reforms must provide flexible procedures to recognise and encourage these agreements without compromising credibility.

This study therefore contributes to the ongoing discussions on tenancy reform and agrarian equity thru the use of econometric evidence, field survey evidence and policy review evidence. It shows that exclusion is structural, that investing behaviour is contradictory, and that regional discrepancies are deep. It additionally emphasises the gap between policy aim and policy execution and the need for inclusive and context-specific reforms.

The argument is that the basis of tenancy reform should be the active cultivator and not the ownership records. The modification is necessary to bring rights in line with the reality of cultivation, decrease vulnerability and promote inclusive rural development.

Policy Recommendations and Implementation Strategy:

The concrete policy advice according to the findings and the specific implementation plans are as follows:

(1) Create a tenancy registration system employing mobile technology to allow tenants and landowners to voluntarily register oral leases without worrying about claims of tenancy security;

(2) All schemes of agricultural support including KCC, PMFBY and subsidy schemes will be mandated to accept a Certificate of Cultivation as sufficient proof of tenant eligibility, without the need for landlord agreement.
(3) Enhance the BALARAM framework by incentivising banks to lend to tenant farmers with interest subvention and credit guarantee;
(4) Develop routine monitoring and assessment of tenant participation in welfare systems, with public reporting of disaggregated data;
(5) Execute specific awareness efforts in districts with significant tenant population to tell tenants about their rights and how to obtain support;
(6) Set up tenant helplines and grievance redressal systems at district level; and
(7) Pilot a tenancy regularisation initiative in select blocks of Cuttack and Keonjhar districts with thorough evaluation to inform scale-up across the state.

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ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XIII Issue VII July 2026

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