

Tenancy, Institutional Access, and Agrarian Inclusion: Evidence from NSS Data and Village Studies in Odisha

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Abstract— This paper investigates the institutional access of tenant farmers in Odisha, India, by integrating macro-level survey analysis with micro-level village evidence. Using household data from the National Sample Survey (NSS) 77th Round, we construct a composite Institutional Access Index (IAI) based on credit, extension, and crop insurance. Principal Component Analysis (PCA), including tetrachoric specifications for binary indicators, confirms a coherent latent dimension of institutional access. Results show that mixed cultivators enjoy significantly higher institutional access than both owners and pure tenants, highlighting the hybrid advantage of combining ownership recognition with leased operational expansion. Complementary fieldwork in two villages—Ratanpur (coastal) and Mahabirapasi (tribal)—illustrates the mechanisms of exclusion. Tenants often rely on informal channels such as neighbor loans and private dealers, while facing barriers in converting awareness of procurement schemes into effective participation. The study argues that institutional exclusion is layered, encompassing access, channel, and conversion, and that tenancy reform must move beyond legalizing leases to address recognition and procedural bottlenecks. The findings contribute to agrarian scholarship by reframing tenancy as an institutional position and to policy debates by emphasizing tenant visibility, cooperative strengthening, and hybrid tenure recognition as pathways to agrarian inclusion.

Keywords— Agricultural Tenancy, Institutional Access, Informal Credit, Agrarian Reform.

I. INTRODUCTION

Land tenure and tenancy remain central to the agrarian question in India. Land is not only a productive asset but also a source of livelihood, social status, and institutional recognition. Yet, ownership and cultivation do not always coincide. A household may cultivate land without holding legal title, often through informal, oral, or short-term tenancy arrangements. This separation between ownership and actual cultivation is particularly consequential for tenant farmers, who supply labour, management, and working capital but lack the documentary attributes through which agricultural programmes identify an eligible cultivator.

The institutional position of tenant farmers is therefore precarious. While agricultural services such as credit, crop insurance, extension, procurement, and input subsidies are designed to support cultivators, access is often mediated through ownership records. Tenants, cultivating without title, risk exclusion from formal institutions even when they are the primary producers. This exclusion is not merely administrative; it shapes productivity, risk management, and livelihood security.

Odisha provides a compelling case study. Postcolonial land reforms, including the Orissa Estate Abolition Act (1951) and the Orissa Land Reforms Act (1960), sought to dismantle intermediary rights and regulate tenancy. Yet, restrictive tenancy provisions created disincentives for landowners to formalise leases, leading to widespread oral and concealed tenancy. More recent initiatives, such as the KALIA scheme, BALARAM credit programme, and attempts to legislate tenancy under the Model Land Leasing Act (2016), have sought to address tenant exclusion, but implementation challenges persist.

This study addresses these issues through a dual empirical strategy. First, it constructs an Institutional Access Index (IAI) using household-level data from the National Sample Survey (NSS) 77th Round, providing a statewide benchmark of institutional inclusion across tenure categories. Second, it examines ground-level realities through a comparative field study of two villages in Odisha, Ratanpur (coastal) and Mahabirapasi (tribal), focusing on tenant farmers' access to credit, inputs, extension, and procurement.

The research pursues three objectives:

1. To assess the relationship between tenure status and institutional access using NSS data.
2. To analyse tenancy practices and institutional pathways in contrasting agrarian settings.
3. To evaluate stakeholder perceptions of tenancy reform and the implications of formalising leases.

By integrating macro-level survey evidence with micro-level village observations, the paper contributes to debates on agrarian justice, institutional inclusion, and tenancy reform.

It argues that institutional exclusion among tenants is best understood as a layered process — encompassing access, channel, and conversion — and that mixed cultivators occupy a distinct position of advantage relative to both owners and pure tenants.

II. LITERATURE REVIEW

Tenancy and Agrarian Structures in India

Agricultural tenancy has been central to India's agrarian question since independence. Early land reforms sought to abolish intermediaries and regulate tenancy, but restrictive provisions often drove leasing underground (Haque, 2012). Contemporary studies confirm the persistence of informal tenancy, particularly in eastern India, where oral leases remain widespread (Vijay & Sreenivasulu, 2013). These arrangements reinforce social hierarchies, with caste and gender dimensions shaping access to land and labour (Agarwal, 1994, 2003). The persistence of concealed tenancy highlights the limits of reform strategies that equated tenancy regulation with agrarian justice.

Institutional Access and Credit Inclusion

Access to institutional credit is widely recognized as a driver of agricultural modernization. Yet, tenants remain disproportionately excluded due to lack of collateral and documentary recognition (Sarap, 1990; Kochar, 1997). Informal sources—neighbours, dealers, and landlords—continue to dominate, often at exploitative rates. Global evidence contrasts sharply: in Europe and North America, formal leasing arrangements enable tenants to access credit and insurance (Deininger, 2003). The Indian case illustrates how restrictive tenancy laws undermine tenure security and institutional inclusion.

Tenancy, Risk Management, and Extension Services

Tenancy also shapes access to crop insurance and extension. Studies from Assam show that sharecroppers underinvest in inputs due to exploitative rent-sharing, while fixed-rent tenants cultivate more intensively (Barua & Goswami, 2015). Landlords' reluctance to formalize leases, driven by adverse possession fears, leaves tenants without legal protection or institutional benefits (Bezbaruah & Goswami, 2015). Globally, tenancy is often formalized and integrated into insurance systems, underscoring India's divergence.

The Model Land Leasing Act, 2015–16

Recognizing the persistence of informal tenancy and its adverse implications for agricultural productivity, NITI Aayog introduced the **Model Agricultural Land Leasing Act in 2015–16**.

The Act sought to provide a uniform legal framework for states to **legalize and formalize land leasing**, thereby addressing the dual challenge of tenant invisibility and landowner insecurity.

Historically, tenancy laws in India were restrictive, often prohibiting or severely limiting leasing. This led to widespread **concealed tenancy**, oral contracts, and informal arrangements that excluded tenants from institutional credit, insurance, and procurement systems. Landowners, fearing loss of ownership rights under adverse possession provisions, avoided formal leases, while tenants lacked documentary recognition. The Model Act aimed to break this cycle by explicitly **protecting the rights of both lessors and lessees**.

Key provisions included:

- Legal recognition of leasing contracts, including written agreements.
- Protection of landowners from losing ownership rights due to leasing.
- Security of tenure for tenants, ensuring they could not be evicted arbitrarily during the lease period.
- Flexibility for states to adapt the framework to local conditions.

The Act's rationale was that **formalizing tenancy would enhance efficiency, equity, and institutional access**. By legitimizing tenants, it would enable them to access credit, insurance, and government schemes, while reassuring landowners that leasing would not threaten their property rights.

Odisha's BALARAM scheme and KALIA programme attempted to operationalize tenant inclusion, but implementation challenges—landowner resistance, weak institutional capacity—remain (World Bank, 2007). Comparative evidence suggests that formalizing leases enhances productivity and institutional access, but India's experience shows that restrictive laws have produced unintended consequences: absentee landlords, fallowing, and reliance on unregistered short-term leases.

Agricultural Services to Tenant Farmers

Access to agricultural services—credit, crop insurance, extension, procurement, and input supply—is central to enhancing productivity and reducing vulnerability among cultivators. Yet, tenant farmers often remain excluded due to the ownership–cultivation divide: while they bear the economic responsibility for cultivation, administrative systems identify beneficiaries through ownership records (Agarwal, 1994; Haque, 2012).

This exclusion reflects what Sen (1981) conceptualized as an *entitlement failure*: tenants may produce food but lack the institutional entitlements necessary to secure livelihoods.

Credit access illustrates this divide most clearly. Formal institutions require land titles as collateral, leaving tenants dependent on informal sources such as neighbours, dealers, or landlords (Sarap, 1990; Kochar, 1997). Similarly, crop insurance schemes and extension services are designed around land records, excluding tenants from risk-management and knowledge systems (Bezbaruah & Goswami, 2015). Procurement and minimum support price (MSP) mechanisms also privilege ownership, as registration requires proof of landholding, thereby marginalizing tenants despite their role as actual producers.

Theoretically, this exclusion can be understood through institutional economics (North, 1990): institutions are “rules of the game” that structure incentives, and when rules privilege ownership, tenants are systematically disadvantaged. Informal tenancy arrangements perpetuate invisibility, reinforcing exclusion from formal channels. Comparative evidence shows that where tenancy is legalized and documented—as in Europe or China—tenants gain access to credit and insurance (Deininger, 2003; Kung & Liu, 1997). In India, however, restrictive tenancy laws and weak institutional recognition sustain a layered exclusion.

Thus, agricultural services to tenant farmers are not merely a technical issue of delivery but a structural question of institutional recognition. Addressing this requires reforms that explicitly identify cultivators, strengthen cooperative channels, and bridge the access–conversion gap between awareness and participation.

III. DATA AND METHODOLOGY

This study employs a dual empirical strategy, combining statewide survey data with village-level field evidence to examine the institutional position of tenant farmers in Odisha. The macro analysis draws on the National Sample Survey (NSS) 77th Round (2019), Schedule 33.1 on land and livestock holdings, while the micro analysis is based on a purposive field study of two villages representing coastal and tribal agrarian contexts. Together, these sources provide complementary insights: the NSS establishes the broader statistical benchmark, while the village study illustrates the pathways and barriers through which tenants experience agricultural services.

NSS Data and Tenure Classification

The NSS dataset contains 2,512 households in Odisha, of which 1,989 are classified as agricultural households according to the NSS definition (Block 4, item 10 = code 2). Within this analytical sample, tenure categories were identified as owner cultivators (1,159 households), mixed cultivators (472 households), and pure tenants (253 households), with a small residual category unclassified. These distinctions are central to the analysis, as they allow institutional access to be compared across tenure groups rather than treated as a homogeneous phenomenon.

The relevant survey blocks provide information on loans (Block 13), technical advice (Block 15), crop insurance (Block 16), crop-production expenditure (Block 7), and operational holdings (Block 5/5.1). Together, these variables enable the construction of a composite measure of institutional access.

Institutional Access Index (IAI)

Institutional access was operationalized through a Principal Component Analysis (PCA) of three binary indicators: access to institutional credit, receipt of agricultural advice from formal sources, and crop insurance coverage. These indicators capture the financial, knowledge, and risk-management dimensions of institutional inclusion. Two PCA specifications were tested: a conventional Pearson correlation matrix and a tetrachoric correlation matrix, the latter being more appropriate for dichotomous variables.

The tetrachoric PCA produced stronger results, with the first principal component explaining 59.4% of variance compared to 47.2% under conventional PCA. All three indicators loaded positively and substantially (Credit: 0.805; Advice: 0.656; Insurance: 0.839), confirming the coherence of the latent institutional-access dimension. The resulting scores were rescaled to a 0–100 scale to form the **Institutional Access Index (IAI)**. Robustness checks using equal-weight indices and conventional PCA confirmed that household rankings were virtually identical, strengthening confidence in the measure.

Table 1. PCA Loadings for Institutional Access Indicators

Indicator	Pearson PCA Loading	Tetrachoric PCA Loading
Credit	0.715	0.805
Advice	0.608	0.656
Insurance	0.732	0.839
Variance Explained (PC1)	47.20%	59.40%

Field Study Design

The village-level component was conducted in **Ratanpur (coastal Odisha)** and **Mahabirapasi (tribal Odisha)**, with a combined sample of 125 tenant farmers (105 and 20 respectively). These sites were selected to capture contrasting agrarian settings: one embedded in market-proximate coastal hierarchies, the other shaped by tribal customary norms and collective practices. Data were collected in tabulated form, limiting the scope for household-level regression but permitting descriptive and categorical analysis of service access, credit sources, input channels, crop production, and market participation.

Analytical Strategy

The NSS analysis proceeds through descriptive statistics, PCA diagnostics, and regression models incorporating district fixed effects. This allows institutional access to be examined both in terms of tenure differences and broader socioeconomic correlates such as operational landholding and Scheduled Tribe status.

The village analysis, by contrast, focuses on the layers of institutional inclusion: whether tenants report access to services, the channels through which access occurs (banks, cooperatives, SHGs, dealers, neighbours, landowners), and the conversion of awareness into actual participation (e.g., MSP registration).

This layered approach provides a conceptual bridge between the macro and micro evidence. The NSS results establish that institutional access varies systematically across tenure and social groups, while the village study reveals the mechanisms through which exclusion and partial inclusion are experienced in practice.

IV. RESULTS AND DISCUSSION

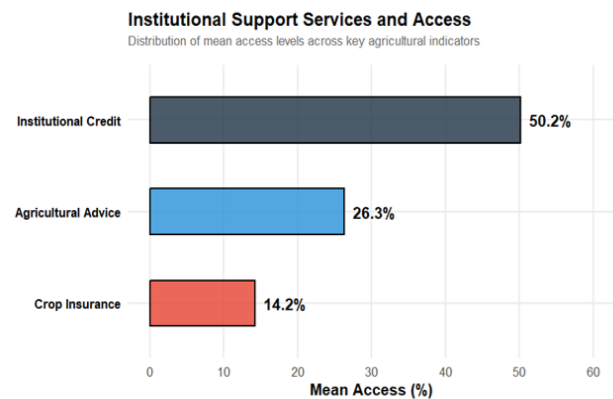
The NSS 77th Round provides the statewide benchmark for institutional access among agricultural households in Odisha. The analysis proceeds in three stages: descriptive statistics of service access, validation of the Institutional Access Index (IAI) through PCA, and regression models examining tenure and socioeconomic correlates.

1. Descriptive Statistics of Service Access

Institutional access remains uneven across households. Table 3 presents the proportion of agricultural households reporting access to credit, advice, and crop insurance.

Indicator	Mean (%)
Institutional Credit	50.2
Agricultural Advice	26.3
Crop Insurance	14.2

The figures reveal that while half of households report institutional credit, fewer than one-third report access to extension services, and only one in seven report crop insurance. This pattern underscores the limited penetration of risk-management instruments relative to financial services.



2. PCA Validation of the Institutional Access Index

The Institutional Access Index (IAI) was constructed using Principal Component Analysis (PCA). The conventional Pearson correlation matrix produced a first component explaining 47.2% of variance, while the tetrachoric correlation matrix — more appropriate for binary indicators — explained 59.4%.

Formally, the IAI score for household i is given by:

$$IAI_i = 0.4517 \cdot Z(\text{Credit}_i) + 0.3680 \cdot Z(\text{Advice}_i) + 0.4707 \cdot Z(\text{Insurance}_i)$$

where $Z(\cdot)$ denotes the standardized value of each indicator.

Table 4. PCA Diagnostics for Institutional Access Index

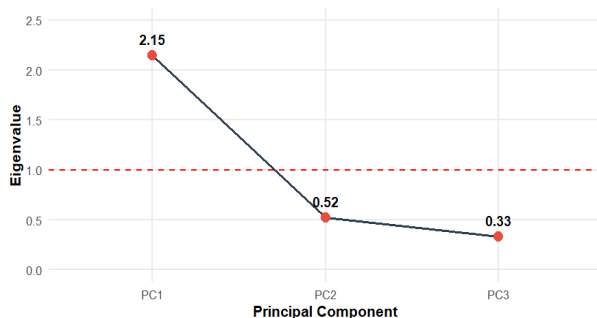
Statistic	Pearson PCA	Tetrachoric PCA
KMO	0.579	0.609
Bartlett's χ^2 (df=3)	249.354***	946.659***
PC1 Eigenvalue	1.417	1.782
Variance Explained (PC1)	47.2%	59.4%
Credit Loading	0.715	0.805
Advice Loading	0.608	0.656
Insurance Loading	0.732	0.839

*** $p < 0.001$

The tetrachoric specification demonstrates stronger coherence, with higher loadings and variance explained. Importantly, household rankings are identical across methods (Spearman $\rho = 1.000$), confirming robustness.

Figure 1. Scree Plot of Eigenvalues

Sharp elbow after PC1 confirms a single-component solution



3. Tenure-Wise Institutional Access

Rescaling the PCA scores to a 0–100 scale produces tenure-specific means. Table 5 shows that mixed cultivators report the highest institutional access, followed by owners, with pure tenants lowest.

Table 5. Tenure-Wise Institutional Access Index (IAI)

Tenure Group	Credit (%)	Advice (%)	Insurance (%)	Mean IAI	95% CI
Mixed (n=472)	61.9	32.2	16.7	34.1	31.5–36.7
Owner (n=1159)	46.2	25.6	15.3	27.1	25.4–28.9
Tenant (n=253)	45.8	22.5	8.3	23.1	20.1–26.2

The ordering is consistent across indicators: **Mixed > Owner > Tenant**. The difference is most pronounced in crop insurance, where tenants report only 8.3% access compared to 16.7% among mixed cultivators.

Figure 2. Tenure Wise Institutional Access Index

Mixed cultivators show dominant institutional access, while tenants lag significantly behind

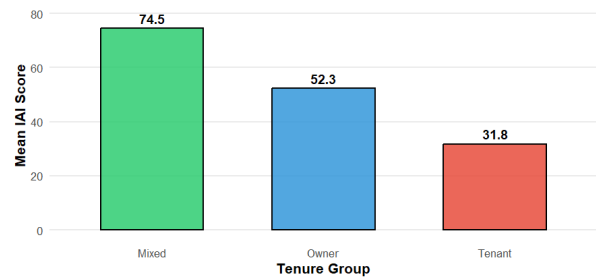


Figure 2. Tenure-Wise Institutional Access Index

4. Regression Analysis

To test whether tenure differences remain significant after adjustment, an OLS regression was estimated with owner cultivators as the reference group:

$$IAI_i = \beta_0 + \beta_1 \text{Tenant}_i + \beta_2 \text{Mixed}_i + \epsilon_i$$

Table 6. Regression Results: Tenure and Institutional Access

Variable	Coefficient	Robust SE	p-value	Interpretation
Intercept (Owner)	27.14	0.878	<0.001	Mean IAI for owners
Tenant	-3.998	1.787	0.025	~4 points lower than owners
Mixed	+6.992	1.583	<0.001	~7 points higher than owners

Model statistics: $F(2,1881) = 14.53$, $p < 0.001$; $R^2 = 0.0152$.

The results confirm that pure tenants have significantly lower institutional access than owners, while mixed cultivators enjoy significantly higher access. The differences are consistent with descriptive means, reinforcing the robustness of the findings.

5. Interpretation

The NSS evidence demonstrates three key findings:

1. Institutional access is limited overall, with crop insurance particularly under-represented.
2. The Institutional Access Index is statistically coherent, with PCA confirming a single latent dimension of access.
3. Tenure differences are significant: mixed cultivators occupy a distinct position of advantage, combining ownership-based recognition with the ability to expand holdings through leasing.

This pattern cautions against a simplistic owner-tenant dichotomy. Instead, it suggests that **mixed tenure arrangements may provide unique institutional leverage**, enabling cultivators to access services more effectively than either pure owners or pure tenants.

V. RESULTS: VILLAGE EVIDENCE

The village study provides a micro-level perspective on how tenant farmers in Odisha experience agricultural services. The evidence is drawn from 125 tenants across two contrasting agrarian settings: **Ratanpur (coastal, n = 105)** and **Mahabirapasi (tribal, n = 20)**. While the sample size limits statistical power, the descriptive distributions reveal important patterns of institutional access, channels of service delivery, and conversion barriers.

1. Agricultural Credit Access

Credit access is a critical determinant of tenants' ability to finance inputs and manage risk. Table 7 presents the distribution of credit access responses.

Table 7. Agricultural Credit Access among Tenant Farmers

Village	Yes (%)	(n, No %)	(n, Can't Say %)	(n, Total)
Ratanpur	49 (46.7)	16 (15.2)	35 (33.3)	105
Mahabirapasi	12 (60.0)	2 (10.0)	6 (30.0)	20
Combined	61 (48.8)	18 (14.4)	41 (32.8)	125

Less than half of tenants report clear credit access. The large "can't say" category ($\approx 33\%$) suggests weak institutional visibility: farmers may rely on informal advances or dealer credit without recognizing these as formal loans.

2. Sources of Agricultural Credit

Beyond binary access, the source of credit reveals the institutional channel. Table 8 shows the distribution of reported sources.

Table 8. Sources of Agricultural Credit among Tenant Farmers

Source	Ratanpur (%)	Mahabirapasi (%)	Combined (%)
Landowner cash advance	2.9	5.0	3.2
SHG/Microfinance	3.8	15.0	5.6
Dealer credit	4.8	0.0	4.0
PACS/Society	6.7	0.0	5.6
Bank agricultural loan	6.7	0.0	5.6
Neighbour/informal credit	10.5	35.0	14.4
Cannot say/no response	64.8	45.0	61.6

The distribution underscores reliance on informal channels. Neighbour credit dominates in Mahabirapasi (35%), while PACS and bank loans appear only in Ratanpur. SHG/microfinance plays a modest but visible role, especially in Mahabirapasi.

3. Access to Agricultural Inputs

Input access illustrates whether tenants are integrated into institutional supply chains. Table 9 summarizes reported sources of seeds, fertilizer, and pesticides.

Table 9. Sources of Agricultural Inputs among Tenant Farmers (Multiple Responses)

Input Source	Seeds (%)	Fertilizer (%)	Pesticides (%)
Own/traditional	52.0	19.2	24.0
PACS/Govt store	11.2	20.0	17.6
SHG/Farmer group	24.0	16.0	9.6
Private dealer	31.2	33.6	39.2

Private dealers are the most frequently reported source for fertilizer and pesticides, while own/traditional seed remains dominant. PACS/government stores play a secondary role, with stronger presence in Ratanpur than Mahabirapasi.

VI. INSTITUTIONS

Tenant farmers overwhelmingly cultivate paddy (91.2%), with limited diversification into pulses, oilseeds, and vegetables. Only 12.8% report surplus production for sale, constraining engagement with procurement institutions.

Table 10. Crop Production and Market Indicators among Tenant Farmers

Indicator	Combined (%)
Paddy production	91.2
Surplus for sale	12.8
Aware of govt procurement	39.2
Aware of MSP registration	33.6
Tried to register at PACS/LAMPS	22.4

The sequence reveals an **access–conversion gap**: awareness of procurement (39.2%) exceeds awareness of registration (33.6%), which in turn exceeds actual attempts to register (22.4%).

Figure 3. Access–Conversion Gap in Market
Declining institutional participation rates across registration stages

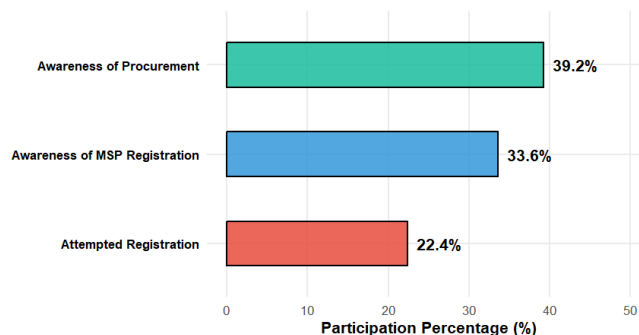


Figure 3. Access–Conversion Gap in Market Institutions

VII. DISCUSSION

The combined evidence from the NSS 77th Round and the two-village field study underscores that tenancy in Odisha is not merely a land-market arrangement but a determinant of institutional inclusion. The findings reveal a layered process of exclusion, where tenants face barriers at three levels: basic access to services, the institutional channels through which access is mediated, and the conversion of awareness into effective participation. This layered exclusion complicates conventional narratives that equate tenancy with exploitation or ownership with security.

At the macro level, the Institutional Access Index (IAI) demonstrates that mixed cultivators enjoy significantly higher institutional access than both owners and pure tenants. This result challenges the binary owner–tenant framework that has dominated Indian tenancy debates since the 1960s. Mixed tenure arrangements appear to confer dual legitimacy: ownership records provide documentary recognition, while leasing expands operational holdings and enhances bargaining power with institutions. This hybrid advantage resonates with comparative agrarian experiences. In China, household contracts under collective ownership created hybrid tenure forms that facilitated institutional access (Kung & Liu, 1997). In Europe and North America, formal leasing arrangements allow farmers to combine owned and rented land, freeing capital for investment (Deininger, 2003). Odisha's mixed cultivators occupy a similar institutional niche, suggesting that tenancy reform must account for hybrid positions rather than treating tenants as a homogeneous category.

The village evidence adds granularity to this macro pattern. The large “can’t say” category in credit access reflects institutional invisibility: tenants transact through informal advances, dealer credit, or neighbour loans that do not map onto categories recognized by banks or cooperatives. This invisibility is not benign; it perpetuates exclusion from entitlements such as crop insurance, procurement, and government schemes. Informal channels dominate because they reduce transaction costs and provide immediate liquidity, but they also lock tenants into path-dependent relationships that limit institutional integration. This finding echoes North’s (1990) argument that informal rules persist when formal institutions are inaccessible or mistrusted.

Equally important is the access–conversion gap in market institutions. Awareness of procurement schemes is relatively high, yet actual attempts to register under MSP remain low. This decline illustrates that information exposure does not automatically translate into participation. Tenants face procedural hurdles, documentation requirements, and recognition barriers that prevent conversion of nominal eligibility into effective entitlement. This pattern parallels findings from Sub-Saharan Africa, where smallholders often know of subsidy programmes but fail to access them due to bureaucratic bottlenecks (Jayne et al., 2016). Odisha’s tenants confront a similar structural bottleneck, reinforcing the need to distinguish between nominal and effective access.

Taken together, these findings have significant policy implications. First, tenancy reform must move beyond legalizing leases to address institutional recognition and conversion barriers. The Model Land Leasing Act (2016) provides a framework for formalization, but without mechanisms to ensure tenant visibility in credit, insurance, and procurement systems, exclusion will persist. Second, cooperative and collective institutions such as PACS and SHGs must be strengthened to reduce reliance on informal channels. Third, policy design should explicitly recognize mixed cultivators as a distinct category, leveraging their hybrid advantage to expand institutional inclusion.

Theoretically, the study contributes three insights to agrarian scholarship. It demonstrates that institutional exclusion is layered rather than binary; that hybrid tenure arrangements create unique leverage; and that informal systems persist due to path dependency, not simply market failure. These insights extend tenancy debates beyond ownership rights to encompass the institutional architecture of agrarian inclusion. In doing so, the study situates Odisha’s experience within global discussions on land tenure, institutional access, and agrarian justice.

VIII. CONCLUSION

This study has shown that tenancy in Odisha is not simply a contractual arrangement but a structural determinant of institutional access. Using NSS 77th Round data, the Institutional Access Index (IAI) revealed that overall access to credit, advice, and insurance remains limited, with crop insurance particularly under-represented. More importantly, tenure differences are significant: mixed cultivators consistently report higher institutional access than both owners and pure tenants. This hybrid advantage arises from the combination of ownership-based recognition and the expansion of operational holdings through leasing, positioning mixed cultivators as a distinct institutional category.

Village-level evidence adds depth to these findings. Tenants often cannot clearly identify credit access, reflecting institutional invisibility. Informal channels such as neighbour loans and private dealers dominate, especially in tribal settings, creating path-dependent reliance on non-institutional sources. Even when tenants are aware of procurement schemes, procedural hurdles and documentation requirements prevent conversion of awareness into participation. This access–conversion gap underscores that exclusion is layered: cultivators may be nominally included in programme design but remain excluded at the point of implementation.

Theoretically, the study contributes three insights: institutional exclusion must be analysed as a layered process; hybrid tenure arrangements create unique leverage; and informal systems persist due to path dependency rather than simple market failure. Policy implications follow directly. Legalizing leases under frameworks such as the Model Land Leasing Act (2016) is necessary but insufficient. Reform must also ensure tenant visibility in credit, insurance, and procurement systems, strengthen cooperative and collective institutions, and explicitly recognize mixed cultivators as a distinct category.

In sum, tenancy reform in Odisha must be understood as part of a broader project of agrarian justice, requiring not only protection of ownership rights but also reconfiguration of the institutional pathways through which cultivators interact with the state, financial institutions, and markets.

REFERENCES

- [1] Agarwal, B. (1994). *A field of one’s own: Gender and land rights in South Asia*. Cambridge University Press.
- [2] Agarwal, B. (2003). Gender and land rights revisited: Exploring new prospects via the state, family and market. *Journal of Agrarian Change*, 3(1–2), 184–224. <https://doi.org/10.1111/1471-0366.00054> (doi.org in Bing)



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- [3] Barua, P., & Goswami, B. (2015). Tenancy and agricultural efficiency in Assam: A comparative study of fixed rent and sharecropping. *Economic and Political Weekly*, 50(26–27), 55–63.
- [4] Bezbaruah, M. P., & Goswami, B. (2015). Informal tenancy and institutional exclusion in Assam agriculture. *Indian Journal of Agricultural Economics*, 70(3), 345–360.
- [5] Deininger, K. (2003). Land policies for growth and poverty reduction. World Bank and Oxford University Press.
- [6] Dev, S. M. (2012). Small farmers in India: Challenges and opportunities. Indira Gandhi Institute of Development Research Working Paper.
- [7] Government of India. (2012). Agricultural census 2010–11: All India report on agricultural holdings. Ministry of Agriculture.
- [8] Haque, T. (2012). Agricultural tenancy reforms and their impact in India. *Indian Journal of Agricultural Economics*, 67(3), 375–392.
- [9] Hanstad, T. (2005). Designing land laws for rural India. *Journal of Law, Property, and Society*, 1(1), 1–22.
- [10] Jayne, T. S., Mather, D., & Mghenyi, E. (2016). Smallholder farming in Africa: Prospects and challenges. *Food Policy*, 67, 1–12. <https://doi.org/10.1016/j.foodpol.2016.09.003> (doi.org in Bing)
- [11] Kochar, A. (1997). An empirical investigation of rationing constraints in rural credit markets in India. *Journal of Development Economics*, 53(2), 339–371. [https://doi.org/10.1016/S0304-3878\(97\)00023-0](https://doi.org/10.1016/S0304-3878(97)00023-0) (doi.org in Bing)
- [12] Kung, J. K., & Liu, S. (1997). Farmers' preferences regarding ownership and land tenure in post-reform China: Implications for the future of the Chinese land system. *China Journal*, 37, 1–23.
- [13] North, D. C. (1990). Institutions, institutional change and economic performance. Cambridge University Press.
- [14] Sarap, K. (1990). Factors affecting small farmers' access to institutional credit in rural Orissa, India. *Agricultural Administration and Extension*, 29(3), 195–208. [https://doi.org/10.1016/0269-5622\(90\)90005-9](https://doi.org/10.1016/0269-5622(90)90005-9) (doi.org in Bing)
- [15] Vijay, R., & Sreenivasulu, K. (2013). Tenancy relations in rural India: Evidence from nine villages. *Economic and Political Weekly*, 48(25), 47–55.
- [16] World Bank. (2007). India: Land policies for growth and poverty reduction. Washington, DC: World Bank.