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Beyond Ownership: Land Titles, Institutional Access, and Farm Performance

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Highlights

- ✚ Secure land titles significantly enhance farmers' ability to access credit, government schemes, and formal markets, thereby influencing agricultural outcomes.
- ✚ Farmers with clear land titles have better access to institutional credit, while non-title holders rely more on informal sources.
- ✚ The relationship between land titling and productivity is not uniform—it varies across crops, regions, and farming practices.
- ✚ Crop insurance penetration is very low, especially among non-clear title farmers due to lack of documentation and awareness.
- ✚ Clear land titles improve access to government subsidies and welfare schemes, whereas non-clear title households often face exclusion.
- ✚ Informal land leasing plays a major role in shaping productivity outcomes, especially among non-title farmers.
- ✚ Non-clear land title households face high transaction costs, procedural delays, and administrative hurdles in regularising land records.
- ✚ Title security improves access to services, but complementary factors (credit, extension, markets) are essential for productivity gains.



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Context

Land is central to rural livelihoods, agrarian production, and economic development. The definition, land recording, and regulation of access to land, commonly referred to as land governance, shape who can use land, how it is used, and who benefits from agricultural growth (Cruz, 2010). Land governance encompasses the rules, procedures, and institutions that allocate land rights, enforce them, and manage competing claims. A clear and secure land title is often argued to reduce uncertainty, lower transaction costs, and strengthen farmers' incentives to invest (Padhee & Joshi, 2019). However, the relationship between land titling, access to finance, and productivity remains context-dependent and empirically contested. The literature offers mixed evidence on the effectiveness of land titling in boosting productivity and reducing poverty. Some studies suggest that land titling contributes to poverty reduction not through immediate expansion of credit access, but rather through the gradual accumulation of physical and human capital that strengthens households over time (Zhang et al., 2020). In contrast, others argue that the poverty-reducing effects of titling are indirect and limited unless complemented by broader interventions such as infrastructure, social protection, and inclusive financial systems (Payne et al., 2009).

Despite this ambiguity, substantial empirical evidence indicates a positive association between clear land titles and access to institutional credit (Sakprachawut & Jourdain, 2016; Zhang et al., 2020; Jiang et al., 2020). Clear land titles also facilitate access to government schemes and subsidy programmes implemented by Union and State governments, and may enable risk coverage through crop insurance and related mechanisms.¹ However, there remains limited empirical research directly examining how these institutional advantages translate into improvements in land productivity.

This Policy Brief highlights the relationship between land titling and access to credit, insurance, subsidies, and other institutional benefits. It argues whether these advantages ultimately contribute to higher agricultural productivity.

Access to Institutional Credit

According to a study in the state of West Bengal (Mukherjee et al., 2026), institutional credit in the study area remains moderate and uneven across title categories (Table 1). Overall, 48.41% of clear-land title households and 47.50% of non-clear land title households reported accessing institutional loans in the past five years. However, access patterns vary sharply by farm size. Among clear-title farmers, 34.13% of marginal, 11.90% of small, and 2.38% of semi-medium farmers accessed institutional credit. A similar size-wise concentration is observed among non-clear title farmers, with 43.33% of marginal, 3.33% of small, and 0.83% of semi-medium farmers receiving loans.

Average institutional crop loan amounts were slightly higher for clear-land title households in crop loans (Rs. 50,310) compared to non-clear land title households (Rs. 42,281). For land development, non-clear land title farmers reported marginally higher average borrowing (Rs. 50,000) than clear land title farmers (Rs. 40,000). Consumption loans accounted for a significant share in both groups, averaging Rs. 64,070 for clear-land title households and Rs. 59,815 for non-clear-land title households. The average outstanding institutional loan amount was higher among clear-land title farmers (Rs. 48,067) than among non-clear land title farmers (Rs. 41,472), indicating a relatively greater credit absorption capacity.

Despite similar overall participation rates, the underlying constraints differ markedly. Among clear-land title households, the most common reason for not availing institutional credit was "not needed"

¹ Department of Agriculture and Farmers Welfare, GoI

(39.68%). Procedural bottlenecks, such as lengthy processing (67%) and extensive documentation requirements (46.83%), were the most significant difficulties. In contrast, for non-clear land title households, structural ineligibility due to the absence of proper land records was the dominant barrier. About 22.5% reported not availing loans due to a lack of land records, and 65% identified the absence of formal documentation as a key obstacle to accessing institutional credit. Fear of loan burden (3.33%) and procedural rigidities further compounded exclusion.

Table 1: Access to Institutional and Non-Institutional Credit (Overall, Amount Rs. per Household)

Indicator	Clear Land Title	Non-Clear Land Title
% HH accessed institutional credit (land security)	48.41	47.50
Avg. Crop Loan (Institutional) (in Rs.)	50,310	42,281
Avg. Land Development Loan (in Rs.)	40,000	50,000
Avg. Consumption Loan (in Rs.)	64,070	59,815
Total Outstanding Loan (Institutional) (in Rs.)	48,067	41,472
% HH accessed non-institutional credit	3.97	7.50
Avg. Non-Institutional Loan (Total) (in Rs.)	28,800	2,68,772
Not availed loan – “Not needed” (%)	39.68	21.67
Not availed – No land record (%)	3.17	22.50
Reported ineligibility due to no land record (%)	46.83	65.00
Reported time-taking process (%)	67.00	35.00

Source: Field Survey

Non-institutional borrowing was limited across both groups, with only 3.97% of clear-land title households and 7.5% of non-clear-land title households reporting such loans. However, the average loan size from non-institutional sources was substantially higher among non-clear-land title farmers (Rs. 2,68,772.08) than among clear-land title farmers (Rs. 28,800), suggesting reliance on informal arrangements when formal eligibility is constrained.

Overall, while headline access rates to institutional credit appear comparable between clear- and non-clear-land title households, land record clarity significantly influences eligibility, loan size, and ease of access. Procedural inefficiencies primarily constrain households with a clear land title. In contrast, households with non-clear land title face structural exclusion rooted in documentation requirements, underscoring the decisive role of formal land tenure in rural credit access.

Accessibility of Government Schemes

The Government of India and the State Government of West Bengal provide a range of agricultural support schemes aimed at income stabilisation, input support, and welfare enhancement of farmer households. However, access to these schemes varies significantly by land title status (Table 2) (Mukherjee et al., 2026).

Under the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme, 37 farmers reported receiving benefits, of whom 33 were clear-land title holders and only 4 were from the non-clear land title category. The average annual benefit per recipient household was Rs. 5,489 for clear-land title farmers and Rs. 5,000 for non-clear land title farmers. In most non-clear land title cases, benefits were accessed through land records held in the names of elderly parents or other household members, rather than in the principal cultivator's name.

Similarly, the Krishak Bandhu (Chief Minister's Scheme) reached 91 farmers, of whom 80 were clear-land title holders, and 11 were non-clear land title households. The average annual benefit per household was Rs. 5,759 for clear-title recipients and Rs. 5,900 for non-clear-title recipients. As with

PM-KISAN, access to non-clear land title often depended on documentation belonging to other family members.

Input-related schemes had minimal outreach. Seed subsidies reached only 13 households, with an average annual per-household benefit of Rs. 704 for clear land title holders and Rs. 780 for non-clear land title holders. Agricultural equipment or machinery subsidies were accessed by very few households, with annual average benefits of Rs. 8,600 for clear-land title recipients and Rs. 7,075 for non-clear-land title recipients. Access in such cases appeared influenced more by local administrative linkages than by formal eligibility.

Several non-agricultural welfare schemes, mainly by the State Government of West Bengal, such as *Lakshmi'r Bhandar* for household women-folk and student scholarships, including the OASIS Scholarship and the Swami Vivekananda Merit-cum-Means Scholarship, were accessed by both groups, as they are not contingent on land ownership. Average annual benefits under these State schemes were Rs. 7,058 for clear land title holders and Rs. 6,724 for non-clear land title holders. Gram Panchayat-administered old-age pensions averaged annually at Rs. 12,000 per clear land title household and Rs. 24,300 per non-clear land title household (although in the sample, we found smaller recipient numbers than clear land title farmers). Non-clear land title households received limited electricity subsidies (Rs. 1,000 per quarter), and both clear land title and non-clear land title households received livestock support averaging Rs. 450 and Rs. 402 per household (for chicks' distribution), respectively.

Table 2: Government Scheme Benefits Availed (Overall Average Rs. per Recipient Household per Year)

Scheme / Department	Clear Title (Rs.)	Non-Clear Title (Rs.)
PM-KISAN	5,489	5,000
Krishak Bandhu	5,759	5,900
Seed Subsidy	704	780
Agri. Dept. (Equipment/Machinery Subsidy)	8,600	7,075
State Welfare Schemes (Lakshmi Bhandar, OASIS, SVMCM, etc.)	7,058	6,724
Gram Panchayat (Old Age Pension)	12,000	24,300
Electricity Subsidy	0	1,000
Veterinary Dept. (Chicks Distribution)	450	402

Source: Field Survey

Table 3: Crop Insurance Status (% of Households)

Indicator	Clear Title	Non-Clear Title
HHs with crop insurance (%)	4.47	0.00
Crop failure among insured (%)	90.90	—
Applied for claim (%)	100.00	—
Received claim (%)	14.29	—
Avg. claim received (₹/acre)	8,200	—
Claims rejected (%)	90.00	—
HHs not taking insurance (%)	46.75	48.78
Major reason – lack of knowledge (%)	26.02	22.36
Major reason – no land record (%)	0.00	21.14

Source: Field Survey

Crop insurance coverage in the study area is extremely low and largely confined to clear-title farmers. Even among them, uptake is minimal (4.47%), while no non-clear land title farmer reported having insurance. Although most insured farmers experienced crop failure and filed claims, only a very small proportion (14.29%) received compensation, with a high rejection rate.

For non-participation, lack of awareness is the dominant constraint across both groups, while the absence of land records is a major barrier, particularly for non-clear-title farmers. Overall, the findings indicate that crop insurance remains both inaccessible and ineffective, particularly for farmers without clear land titles.

Notably, no households reported benefits from several major government agricultural programmes, including organic farming promotion, soil health initiatives, irrigation schemes, or crop insurance discounts, indicating extremely limited scheme penetration beyond direct income transfers.

Overall, clear- land title households consistently demonstrated greater access to core agricultural subsidy schemes, particularly those directly linked to land ownership. Non-clear land title farmers often relied on indirect access through other household members' documentation. The findings suggest that formal land title remains a critical determinant of eligibility and effective participation in agricultural support programmes, reinforcing structural disadvantages faced by farmers without clear land records.

Productivity and Value of Major Crops

Table 4 presents crop-wise productivity (quintals per acre) and value (Rs. per acre) across land title categories. The results indicate that the relationship between land title status and farm performance is crop- and season-specific rather than uniform.

Table 4: Productivity and Value of Major Crops by Land Title Status (Per Acre)

Season	Crop	Clear Land Title: Productivity (Quintals/Acre)	Non-Clear Land Title: Productivity (Quintals/Acre)	Clear Land Title: Value (Rs. /Acre)	Non-Clear Land Title: Value (Rs. /Acre)
Kharif	Paddy	16.28	15.57	27,954	26,211
Rabi	Potato	119.97	139.75	89,003	95,564
Total	—	—	—	2,02,817	2,00,105

Source: Field Survey

Note: Productivity is measured in quintals per acre. Values represent gross returns per acre. Totals refer to overall seasonal aggregates across reported crops.

Kharif Season (Paddy)

Paddy, the dominant Kharif crop (based on Gross Cropped Area), shows slightly higher productivity among clear- land title farmers. Clear-land title households recorded an average yield of 16.28 quintals per acre, compared to 15.57 quintals per acre among non-clear land title farmers. Correspondingly, the average value per acre was Rs. 27,954 for clear-land title farmers and Rs. 26,211 for non-clear land title farmers.

The price differential is partly explained by market access. Clear-land title farmers are eligible to sell at government procurement centres and benefit from the Minimum Support Price (MSP). In contrast, non-clear land title farmers typically sell to private traders in open markets at comparatively lower prices. Thus, even modest yield differences translate into noticeable value differentials.

Rabi Season (Potato)

During the Rabi season, the pattern reverses for potato, the principal Rabi crop. Clear-land title farmers achieved an average productivity of 119.97 quintals per acre, generating Rs. 89,003 per acre. Non-clear land title farmers, however, recorded higher productivity of 139.75 quintals per acre, with a corresponding value of Rs. 95,564 per acre.

This outcome reflects adaptive production and marketing strategies among non-clear land title farmers. In Birbhum district, many cultivate potatoes along riverbanks, which offer favourable agro-climatic conditions. In Uttar Dinajpur, farmers with non-clear land titles often lease highly fertile land specifically for potato cultivation. Additionally, some reported strategically timing sales to benefit from higher prevailing market prices.

Overall Pattern

Seasonal sub-totals and grand totals indicate that aggregate value per acre is broadly comparable between the two groups (Rs. 2,02,817 for clear-land title and Rs. 2,00,105 for non-clear land title households). These findings suggest that while clear land titles provide institutional and marketing advantages—particularly for MSP-linked crops—non-clear-land title farmers often offset structural disadvantages through leasing strategies, crop choice, and market timing.

Overall, land title status influences productivity and value indirectly through market access and institutional linkages. However, crop-specific agro-ecological and behavioural factors play an equally significant role in shaping outcomes.

Conclusions

The analysis underscores that while land titling plays a significant role in shaping farmers' access to institutional resources, its impact on agricultural productivity is neither direct nor uniform. Clear land titles undoubtedly enhance eligibility for institutional credit, government schemes, and crop insurance, thereby strengthening the formal integration of farmers into the agrarian support system. However, the empirical evidence from West Bengal reveals that such advantages do not automatically translate into higher productivity or income gains.

Access to institutional credit, though moderately similar across title categories in aggregate terms, is qualitatively different. Farmers with clear land titles benefit from relatively higher loan sizes and smoother access, whereas non-clear title farmers face structural exclusion due to documentation constraints and are often compelled to rely on high-value informal borrowing. Similarly, access to major agricultural schemes such as PM-KISAN and Krishak Bandhu is strongly conditioned by land ownership status, reinforcing the exclusion of actual cultivators without formal titles. Crop insurance emerges as both inaccessible and ineffective, with negligible coverage and high claim rejection rates, further limiting its role as a risk mitigation instrument.

Despite these institutional disparities, differences in agricultural productivity and returns across land title categories remain marginal and crop-specific. Clear-title farmers exhibit modest advantages in MSP-linked crops like paddy due to better market access, while non-clear title farmers often outperform in high-value crops such as potato through adaptive strategies, including leasing fertile land, intensive input use, and strategic market timing. The near parity in aggregate returns suggests that farmers without clear titles can partially offset institutional disadvantages through behavioural and production adjustments.

The land titling is a necessary but not sufficient condition for enhancing agricultural productivity. Its primary contribution lies in improving access to formal institutions rather than directly influencing

production outcomes. Productivity gains depend equally, if not more, on complementary factors such as access to markets, extension services, infrastructure, and efficient input use. Therefore, policy interventions must move beyond a narrow focus on land titling to adopt a more inclusive and integrated approach—one that recognizes cultivators irrespective of ownership status, reduces procedural barriers, strengthens service delivery, and supports efficient resource use. Only through such a comprehensive framework can the potential benefits of secure land tenure be effectively translated into sustained agricultural growth and rural welfare.

Policy Recommendations

Policy responses must move beyond a narrow, title-centric framework. Land titling reforms should be embedded within a broader rural development architecture that simultaneously strengthens procurement systems, credit access, crop insurance, and market infrastructure. Without these complementary mechanisms, the economic returns to formalisation remain limited.

At the same time, policy must acknowledge the functional role played by land tenancy and informal land leasing arrangements. The evidence indicates that operational cultivators, particularly in high-value crops, often rely on flexible leasing to optimise land use. Rather than discouraging such practices, reform efforts should aim to provide legal recognition and limited security to tenancy arrangements without undermining ownership rights. Carefully designed and recorded land lease agreements can improve allocative efficiency while reducing litigation risks.

Market access mechanisms also require reconsideration. Where procurement and institutional credit are contingent on documentary proof of ownership, operational cultivators without clear land titles face exclusion. Alternative verification systems, such as cultivation certificates or digitised tenancy records, could ensure that benefits are linked to actual cultivation rather than ownership status alone.

Finally, price volatility and post-harvest constraints, particularly in commercial crops like potatoes, appear to influence farm incomes more substantially than title status. Investments in storage infrastructure, decentralised marketing facilities, and collective marketing institutions would likely yield more substantial income stabilisation effects than titling reforms in isolation.

Hence, the evidence suggests that land titling should be viewed as one component of a broader institutional ecosystem. Secure property rights enhance economic participation, but sustained gains in productivity and value realisation depend on aligning land policy with credit systems, market access, tenancy reform, and infrastructure development.

Policy-Oriented Highlights

- **Need to simplify and digitise land records to reduce transaction costs**
- **Promote inclusive credit systems for non-title and tenant farmers**
- **Reform policies to recognise cultivators (not just owners) in subsidy eligibility**
- **Legalise and regulate land leasing to reduce informality**
- **Strengthen extension services and input-use efficiency**

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