

Enabling the Shift: Building the Ecosystem for Odisha's Export-Ready Agriculture

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Abstract

Odisha's agricultural economy remains characterized by low-value production systems, modest farmer incomes, and weak integration with formal and global value chains. Despite progress in food security, particularly through rice and pulses, the state's crop portfolio is dominated by commodities sold in informal domestic markets, where price realization and access to premium procurement channels are limited. This paper explores pathways for Odisha to transition toward higher-value, export-oriented agricultural systems by selectively leveraging crops with latent potential under the right institutional conditions.

Coffee in Koraput, cotton in western Odisha, and small-scale tobacco production are presented as diagnostic examples of underexploited opportunities. Each demonstrates clear value gaps: coffee lacks curing and branding infrastructure; cotton suffers from poor ginning and weak buyer linkages; tobacco is confined to low-grade varieties despite proven global demand for flue-cured Virginia (FCV) types in neighboring states. These cases are not prescriptive endorsements of particular crops but illustrative entry points for discussing how Odisha might diversify into export-oriented agriculture without compromising its food security base.

The analysis argues that capital investment alone will not suffice. While infrastructure expansion is important, it must be coupled with institutional reforms: strengthening Farmer Producer Organizations (FPOs) as market-facing enterprises, enabling access to working capital, establishing accredited testing and certification systems, embedding traceability tools, and providing regulatory clarity for export facilitation. Such measures can transform FPOs from formally registered entities into functionally competitive participants in global markets.

By situating Odisha as a demonstration case, the paper highlights lessons applicable across eastern and central India, where similar structural challenges persist. Diversification into selective high-value crops, underpinned by compliance-oriented systems, offers a pathway to higher incomes, resilience, and long-term integration into sustainability-driven global agricultural trade.

Keywords: Foreign Direct Investment (FDI), Traceability and sustainability compliance, Farmer income enhancement, Agri-export transformation

Section 1: Introduction

Odisha's agricultural economy continues to be defined by a set of structural constraints that limit its capacity to generate sustainable prosperity for farming households. The state's agricultural profile is marked by a reliance on low-value crops, fragmented landholdings, and a production system that is predominantly oriented toward subsistence and informal markets. While Odisha has made considerable

progress in achieving food security through the expansion of rice cultivation and more recently through rising production of pulses, its agricultural sector remains weakly integrated with higher-value national and international markets. Farmers are often trapped in low-income cycles, selling undifferentiated produce into domestic markets where price realization is minimal and opportunities for premium procurement are absent.

The challenges of Odisha's agricultural economy are not unique, and in fact mirror those across much of eastern and central India. Yet, Odisha presents a particularly compelling case for examining pathways of transition because of the coexistence of two features: first, a strong base in staples that ensures food security; and second, the presence of niche cash crops that, despite modest volumes, demonstrate latent potential for higher-value positioning. Crops such as coffee in Koraput, cotton in the western districts, and tobacco in select pockets of the state illustrate this duality. At present, each of these commodities is produced and marketed under conditions that prevent farmers from realizing significant value. Coffee remains largely unbranded and unprocessed locally; cotton suffers from poor ginning and limited market access; and tobacco production is restricted to low-grade, country and bidi varieties consumed domestically.

It is precisely because these commodities underperform relative to their national and international peers that they provide valuable diagnostic examples. In Karnataka, for instance, coffee has been transformed into a globally recognized commodity through investment in curing works, branding, and certification, enabling farmers to capture export premiums. In Andhra Pradesh and Karnataka, flue-cured Virginia (FCV) tobacco production, embedded in a regulated and auction-based ecosystem, generates farmer incomes that are three to four times higher than those of their counterparts in Odisha producing low-grade varieties. Similarly, in Gujarat, cotton farmers benefit from robust ginning infrastructure and buyer linkages that integrate them into export-driven value chains. These examples suggest that the issue is not the crop itself, but the absence of the institutional, regulatory, and infrastructural conditions that allow Odisha's farmers to move up the value ladder.

The argument of this paper, therefore, is not that Odisha should engage in blanket promotion of export crops or seek to replace food security staples with cash crops. On the contrary, food security remains foundational and indispensable, and staples will continue to occupy the central place in Odisha's agricultural economy. Rather, the proposal is for a diversification strategy, one that builds resilience by combining staples with selective, high-value crops that can generate cash incomes, enable participation in global markets, and provide hedges against local shocks. This is particularly important in an era where global agricultural trade is increasingly conditioned by compliance requirements. Traceability, certification, environmental sustainability, and transparency are no longer optional but essential features of accessing premium markets. By selectively investing in the infrastructure and institutional systems that underpin export readiness, Odisha can open new pathways for farmers to increase their incomes without undermining the food security role of staples.

The rationale for choosing coffee, cotton, and tobacco as case studies lies in their diagnostic clarity. Coffee in Koraput demonstrates clear global demand but is constrained by the absence of curing, testing, and branding facilities that would allow it to be marketed as a distinctive product. Cotton in western Odisha illustrates how poor post-harvest infrastructure and weak buyer linkages erode potential value, leaving farmers dependent on intermediated domestic markets. Tobacco, though currently limited to low-grade varieties, offers a striking example of missed opportunity: while the same crop in Andhra Pradesh and Karnataka has created a globally integrated, high-income sector underpinned by regulation and auction

platforms, Odisha's production remains confined to informal channels. These examples do not represent prescriptive recommendations to privilege one crop over another, but rather serve as illustrations of how targeted investments and institutional reforms could enable Odisha to capture export premiums where demand is already proven.

At present, Odisha's agricultural system lacks the institutional scaffolding required for such a transition. Farmer Producer Organizations (FPOs), for example, exist in significant numbers but are often entities in form rather than function. While they have been registered and trained under various government and donor-supported schemes, they frequently lack the working capital, quality-linked procurement systems, traceability tools, and buyer contracts necessary to participate in export markets. The result is that some FPOs operate at a loss despite receiving training support. This reveals a critical gap: support structures have created organizational shells but not market-facing enterprises. Bridging this gap requires more than incremental training; it demands the construction of systemic rails that can carry farmers from subsistence-level production to export-ready enterprises.

Capital investment, while essential, is not sufficient on its own to catalyze such a transformation. Experience from across India demonstrates that physical infrastructure—such as roads, warehouses, and cold chains—will not automatically translate into higher farmer incomes unless it is embedded in a wider institutional ecosystem. What Odisha requires is a systems-level approach that combines public and private investment with institutional innovation. This includes strengthening FPOs to operate as true market entities, building financial inclusion mechanisms that provide them with working capital, offering tailored extension services that focus on quality-linked production, and establishing clear regulatory pathways for certification and export facilitation.

This approach has broader implications beyond Odisha. The state provides a demonstration case of how regions across eastern and central India, currently trapped in low-value production systems, can chart a new trajectory. The message is not limited to a single crop or a single state; it is about recognizing the common structural constraints—fragmented holdings, weak post-harvest systems, lack of certification, and poor market integration—and addressing them through coordinated interventions. Odisha's experience can therefore serve as a template for wider agricultural transformation in regions where the potential for export orientation remains untapped.

Ultimately, the significance of this discussion extends beyond questions of agricultural income. It speaks to the future of rural economies in India and their capacity to participate in a world where agricultural trade is increasingly shaped by compliance and sustainability. Unlocking Odisha's potential requires not just capital, but coordination: between farmers and markets, between FPOs and financiers, and between the state and private actors. By aligning institutional design with economic opportunity, Odisha can lay the foundations for a diversified, resilient, and globally integrated agricultural economy.

Section 3: Why Export Orientation Matters

Agricultural growth in Odisha has historically been measured in terms of production volumes of staple crops, particularly rice, supported by strong public procurement mechanisms. While this has ensured food security, it has not translated into commensurate improvements in farmer incomes. The average monthly income of agricultural households in Odisha remains among the lowest in India, reflecting a systemic trap: high volume but low value. The question for policymakers, therefore, is not only how much Odisha produces, but how much value its farmers can capture. Export orientation provides a pathway to escape

this trap by connecting producers to premium markets where quality, traceability, and sustainability command higher prices.

3.1 Moving Beyond Volume to Value

In today's global agricultural economy, value is less about bulk production and more about compliance with stringent standards. Markets in Europe, North America, and increasingly Asia demand certified produce that is traceable, environmentally sustainable, and free from regulatory or safety risks. Crops that meet these conditions attract significant price premiums. Without export-ready systems, Odisha's farmers are excluded from these opportunities and remain locked into informal domestic channels where price discovery is weak and margins are minimal.

Examples from within India demonstrate how integration into compliance-driven value chains reshapes incomes. Grapes from Maharashtra, supported by APEDA's *GrapeNet* traceability platform, access European supermarkets at premium rates. Basmati rice exports from Haryana and Punjab benefit from standardized testing, certification, and branding. Andhra Pradesh's flue-cured Virginia (FCV) tobacco auctions generate some of the highest farm-gate prices for any cash crop in India. None of these are the result of the crop alone; they are products of an institutional ecosystem deliberately built for export. Odisha currently lacks this scaffolding, which explains why its coffee, cotton, and tobacco remain undervalued despite proven global demand.

3.2 Diversification as a Risk Hedge

Export orientation is often misinterpreted as competing with food security. In reality, diversification into high-value export crops strengthens resilience. For smallholders, staples such as rice and pulses remain essential for consumption and steady, if modest, procurement incomes. But reliance on a narrow production base exposes households to risks climatic shocks, procurement delays, or local market gluts can erode livelihoods. Diversified portfolios, which combine staples with selective cash crops, provide a hedge. A farmer cultivating rice alongside coffee or cotton can secure subsistence while also participating in premium markets, thereby smoothing income variability.

This is particularly relevant for Odisha, where climatic vulnerability is high. The state is frequently exposed to cyclones, floods, and droughts, all of which can destabilize staple-oriented systems. Selective export crops, supported by crop-specific infrastructure and insurance mechanisms, can function as buffers. They are not replacements for food security crops, but complementary income streams that enhance overall household resilience.

3.3 Multiplier Effects for the Agricultural System

Investments in export readiness generate spillover benefits across the agricultural economy. Accredited labs established for coffee or cotton testing also service rice or oilseed exports. Traceability platforms designed for cash crops can be extended to staples, strengthening India's compliance with global standards. Cold-chain investments for perishable export crops improve domestic market efficiency for fruits and vegetables. By building export-oriented infrastructure and institutions, Odisha effectively creates public goods that elevate the entire agricultural system, not just selected commodities.

This multiplier effect is particularly critical in a context where India is seeking to expand its agricultural exports from the current ~\$35 billion annually to significantly higher levels in line with the national target. For Odisha, aligning with this vision means positioning itself as a contributor not only of volume but of premium, compliance-ready produce.

3.4 A Strategic Positioning for Eastern India

Finally, export orientation matters because Odisha can serve as a demonstration case for eastern and cen-

tral India. States across this belt share the same challenges: smallholder dominance, weak post-harvest infrastructure, limited farmer collectivization, and low integration with global value chains. If Odisha can demonstrate how targeted investments and institutional frameworks can shift even a modest share of production into premium export channels, it will establish a replicable model. The lessons learned in Koraput's coffee, western Odisha's cotton, or a pilot FCV tobacco corridor can inform policy and practice across Bihar, Jharkhand, Chhattisgarh, and West Bengal.

3.5 The Global Market Context

The urgency of export readiness is reinforced by evolving trade regulations. The European Union's Deforestation Regulation (EUDR), which applies to commodities such as coffee, cocoa, soy, and timber, will soon require geolocation and proof of deforestation-free production for all imports. Similar sustainability and traceability requirements are emerging in other markets. This means that compliance is no longer optional. States like Odisha that fail to equip their farmers with the tools of certification, traceability, and sustainable production will see their produce excluded from lucrative markets. Conversely, those that invest early in these systems will gain first-mover advantages.

In summary, export orientation matters for Odisha not because it replaces food security, but because it adds value, resilience, and global integration to an otherwise low-value agricultural system. It is a pathway to transition from subsistence and informality toward prosperity and competitiveness.

Section 4: Diagnostic Examples - Coffee, Cotton, Tobacco

4.1 Coffee: Potential in Koraput's Highlands

Coffee is one of the most striking examples of underutilized opportunity in Odisha. The Koraput plateau offers agro-climatic conditions highly suited for high-quality Arabica cultivation. Around 2,500 growers cultivate approximately 3,900 hectares under coffee, supported modestly by the Coffee Board of India's extension services. Despite this promising base, the absence of adequate curing works, accredited testing facilities, and branding initiatives has confined Koraput coffee to bulk sales in undifferentiated markets. By contrast, Karnataka and Kerala have transformed coffee into globally recognized commodities through systematic investment in processing, quality certification, and geographical indication (GI) branding. Specialty coffee from Coorg or Chikmagalur fetches premiums in export markets where traceability and sustainability are prized. Odisha's coffee, lacking these institutional rails, is unable to capture similar premiums.

Recent efforts, such as the establishment of a private curing and storage unit by Kalinga Desiagro Foundation in 2022, signal early progress. Yet these remain limited in scale and capacity. For Odisha to compete in compliance-driven markets—especially in light of the EU Deforestation Regulation (EUDR), which mandates geolocation and sustainability proof for coffee imports—investments in traceability platforms, farmer training, and market branding are urgent. Koraput coffee has the potential to become a flagship export, but only if embedded in a robust institutional ecosystem.

4.2 Cotton: Western Odisha's Quality Dilemma

Cotton is another crop that demonstrates both promise and persistent structural weakness. Western Odisha districts such as Bargarh, Kalahandi, Nuapada, and Bolangir have emerged as cotton hubs, with production reaching over 50.65 million USD. This growth highlights the crop's role as a diversification option for smallholders.

However, the state's cotton suffers from poor ginning and quality standards. Contamination levels remain high, and bales are often unsuitable for premium textile buyers. While modern ginning units exist for

instance, a facility at Kesinga with 6,000 bales per month capacity coverage is patchy, and many farmers continue to sell raw kapas at low margins through intermediaries.

The contrast with Gujarat is instructive. There, strong ginning infrastructure, coupled with direct linkages to exporters and textile mills, integrates cotton into global supply chains. Odisha, in the absence of similar institutional scaffolding, remains confined to domestic markets where premiums are limited. If ginning quality, buyer linkages, and certification systems were improved, Odisha's cotton farmers could access higher returns. This requires deliberate investment in processing quality, aggregation through functional FPOs, and branding of "clean cotton" aligned with sustainability standards demanded by global buyers.

4.3 Tobacco: From Low-Grade Marginality to Missed Premiums

Tobacco in Odisha today is limited to small pockets in districts such as Rayagada, Gajapati, Koraput, and Nabarangpur. Farmers cultivate mostly *pikka* or country/bidi varieties for local consumption. Prices hover around ₹50/kg in local mandis, offering limited income enhancement and reinforcing the perception that tobacco is a marginal, low-value crop in the state.

Yet the example of Andhra Pradesh and Karnataka demonstrates the transformative potential of the same plant under different institutional conditions. There, farmers cultivate flue-cured Virginia (FCV) tobacco within a regulated, auction-based ecosystem overseen by the Tobacco Board of India. In the 2023–24 auction season, FCV tobacco in AP fetched record average prices of nearly ₹289/kg. Even accounting for input and curing costs, the income multiples compared to Odisha's low-grade tobacco are significant.

The point is not to suggest blanket acreage expansion of tobacco in Odisha. Rather, it is to highlight a latent opportunity: if even a fraction of Odisha's smallholder production were upgraded to export-grade FCV under a tightly regulated, compliance-driven system, it could materially raise farmer incomes. Achieving this would require curing barns, aggregation systems, traceability, and access to auction platforms. Without these institutional rails, Odisha's tobacco will remain trapped in low-value domestic circuits.

4.4 Why These Examples Matter

Coffee, cotton, and tobacco are not arbitrary choices. They are used here as diagnostic illustrations of Odisha's agricultural economy: crops with clear global demand, currently underperforming in the state due to systemic bottlenecks. Each demonstrates a different missing link—processing and branding in coffee, ginning and quality assurance in cotton, regulatory and auction systems in tobacco. Together, they underscore the central argument of this paper: that Odisha's challenge is not what it grows, but how it connects production to markets. With the right institutional scaffolding, these crops exemplify how Odisha can transition from subsistence and informality toward higher-value, export-oriented agriculture.

Section 5: Systemic Barriers

Despite Odisha's diverse crop base and promising examples of coffee in Koraput, cotton in the western belt, and tobacco in select districts, systemic constraints continue to limit farmers' ability to capture value. These barriers are structural and institutional in nature, not just commodity-specific, and they form the central challenge to transitioning toward an export-oriented agricultural system.

5.1 Fragmented Landholdings and Scale Constraints

Odisha's agriculture is overwhelmingly smallholder-driven, with average operational holdings below 1.2 hectares. Fragmentation makes it difficult for farmers to achieve economies of scale, adopt advanced technologies, or meet the uniform quality standards demanded in export markets. Small-scale production also limits bargaining power, leaving farmers dependent on intermediaries who absorb much of the value.

While FPOs and cooperatives are designed to address this constraint, most remain at an early stage of institutional maturity.

5.2 Inadequate Post-Harvest and Processing Infrastructure

Infrastructure gaps are among the most visible barriers. Coffee in Koraput lacks curing and testing units; cotton suffers from poor ginning coverage and contamination risks; tobacco lacks curing barns that could allow a shift to export-grade FCV. More broadly, Odisha's cold-chain coverage, accredited laboratories, storage facilities, and logistics systems remain underdeveloped. Without this infrastructure, farmers are unable to meet the compliance, quality, and traceability requirements of premium markets. The absence of accredited labs and certification facilities is particularly damaging, as it prevents crops from being tested and certified to global standards even when production quality is high.

5.3 Weak Farmer Producer Organizations (FPOs) and Market Integration

Over the past decade, Odisha has seen the formal registration of hundreds of FPOs, supported by state programs and national initiatives. However, functionality remains limited. Many FPOs lack working capital, procurement systems linked to quality, professional management, and direct buyer contracts. As a result, they exist as entities on paper but struggle to act as competitive, market-facing enterprises. Some even operate at a loss despite receiving training. This underscores the distinction between organizational existence and institutional capability. Without deeper integration into value chains—through contracts, access to finance, and traceability systems—FPOs cannot act as effective vehicles for export readiness.

5.4 Financial Inclusion and Working Capital Gaps

One of the most persistent barriers for Odisha's farmers and FPOs is access to finance. Working capital shortages prevent FPOs from aggregating produce, holding inventory, or investing in compliance systems. Individual farmers face similar challenges, relying heavily on informal credit at high interest rates. While banks and cooperative credit societies exist, their coverage and reach into remote regions are limited, and risk perceptions around export-linked crops deter lending. This financial exclusion constrains farmers' ability to transition from subsistence to market-linked production.

5.5 Regulatory and Compliance Bottlenecks

Export orientation requires clear regulatory guidance on certification, traceability, and market facilitation. In Odisha, regulatory systems are underdeveloped, leaving farmers and FPOs uncertain about how to access export channels. For example, while Andhra Pradesh and Karnataka tobacco farmers benefit from an auction-based system overseen by the Tobacco Board, Odisha farmers lack a comparable institutional mechanism. Similarly, coffee in Koraput cannot access premium export markets without certification aligned to international standards. The absence of such frameworks makes it difficult for farmers to comply with evolving global regulations, such as the EU Deforestation Regulation (EUDR), which now mandates traceability for commodities including coffee.

5.6 Limited Branding, Traceability, and Buyer Linkages

Even when quality produce exists, Odisha lacks branding strategies and traceability systems to position its products in global markets. Koraput coffee, for instance, could be branded as a distinctive origin coffee, yet it remains bulk-sold without certification or GI recognition. Cotton suffers from poor brand visibility compared to Gujarat's "Shankar-6." Without traceability platforms—akin to APEDA's *GrapeNet* for grapes or *BasmatiNet* for rice buyers have little assurance of quality, safety, or sustainability. This absence of branding and traceability creates a structural exclusion from markets where compliance is non-negotiable.

In short, Odisha's systemic barriers can be grouped into five categories: fragmented holdings, inadequate infrastructure, weak FPO functionality, financial exclusion, and compliance bottlenecks. These challenges are mutually reinforcing: small farmers cannot access markets without FPOs; FPOs cannot operate without working capital and certification systems; and buyers cannot engage without assurance of quality and traceability. Unless addressed through a systems-level approach, Odisha will remain locked in a cycle of low-value agriculture.

Section 6: Pathways for Transition

Odisha's transition toward higher-value and export-oriented agriculture will depend less on one-off capital investments and more on building an institutional ecosystem that strengthens farmer organizations, expands compliance infrastructure, and deepens market integration. The state already has important foundations in place, from its large network of Farmer Producer Organizations (FPOs) to its emerging export policy framework. The task ahead is to build upon these gains and ensure that farmers and producer groups have the tools, resources, and institutional support required to access premium markets.

A key priority is strengthening FPOs so that they evolve from being formally registered entities into functionally competitive, market-facing enterprises. Many of these organizations already provide a platform for farmer aggregation and collective action, but they need stronger financial and operational capabilities to participate in export-oriented value chains. Targeted measures such as professional management support, quality-linked procurement systems, transparent governance mechanisms, and access to digital traceability tools can help FPOs establish themselves as credible partners for buyers. Complementing these efforts with greater access to working capital—through risk-sharing facilities, credit guarantees, and receivables financing—would allow FPOs to aggregate produce at scale and negotiate better terms with markets.

Parallel investments in post-harvest and compliance infrastructure are equally important. Accredited laboratories, certification facilities, and quality testing services need to be accessible within the state so that farmers and FPOs can meet international standards across crops. For coffee, this may mean expanded curing and cupping facilities in Koraput; for cotton, access to high-volume instrument testing for lint quality; and for tobacco, curing and grading facilities that align with auction-based systems. Such facilities do not serve single crops alone—they become public goods that can also support rice, oilseeds, fruits, and vegetables destined for both domestic and international markets. A digital traceability platform, modeled on successful national examples such as GrapeNet, could integrate these compliance systems and ensure Odisha's farmers are aligned with emerging global regulations on sustainability and transparency.

Financing will be central to enabling this transition. Building on existing government schemes and financial institution support, a blended finance window could combine public funds, development finance, and private sector capital to address working capital, post-harvest investments, and farmer-level equipment needs. Credit guarantees and performance-based incentives would help reduce risk for lenders and ensure that financing flows to FPOs and farmer groups in a sustainable manner. By positioning finance as an enabler of market entry rather than a constraint, Odisha can accelerate the shift from subsistence-level production to export readiness.

Equally important is regulatory clarity and facilitation. Farmers and FPOs often need guidance on certification processes, export documentation, and compliance pathways. A single-window export facilitation desk within the state could help streamline these interactions and ensure smoother engagement with agencies such as APEDA, the Export Inspection Council, and the Tobacco Board of India. In the case

of tobacco, any future transition to flue-cured Virginia production would need to be aligned with national auction systems and health regulations, ensuring compliance and oversight rather than indiscriminate expansion. Similarly, for coffee, early alignment with EU deforestation-free regulations would give Odisha's growers a first-mover advantage in compliance-driven markets.

Finally, these interventions can be most effective when tested in focused corridors that demonstrate success before scaling. For example, a Koraput coffee corridor could build curing, cupping, and traceability systems while linking growers to specialty coffee buyers. A cotton corridor in western Odisha could strengthen ginning quality and bale-level testing while opening direct contracts with textile mills. A small, carefully regulated pilot for export-grade tobacco could demonstrate income potential under auction-based systems while maintaining strict safeguards. These corridor pilots would provide Odisha with a practical demonstration of how selective, high-value crops can be integrated into export markets, offering lessons that can later be applied to other commodities such as rice, mangoes, or oilseeds.

By approaching the transition in this manner, Odisha would not only improve farmer incomes but also create durable public goods in the form of compliance infrastructure, financial systems, and market platforms. Importantly, these investments would serve the broader agricultural system rather than specific crops, reinforcing the state's commitment to food security while opening new avenues of growth. With a focus on institutional strengthening, inclusive design, and climate resilience, Odisha has the opportunity to position itself as a leader in showing how smallholder-dominated states can integrate into global agricultural value chains.

Section 7: Broader Implications Beyond Odisha

While this paper focuses on Odisha, the challenges and opportunities it describes are not unique to the state. Much of eastern and central India including states such as Bihar, Jharkhand, Chhattisgarh, and parts of West Bengal and Madhya Pradesh shares a similar agricultural profile. Farming is dominated by smallholders, production remains largely oriented toward staples, and linkages to formal markets are weak. Infrastructure for post-harvest management, certification, and traceability is often underdeveloped, and Farmer Producer Organizations, though numerous, frequently struggle to become fully market-integrated. The lessons from Odisha's potential transition therefore carry important implications for the wider region.

The first implication is that diversification into selective, higher-value crops can act as a complementary pathway for farmers without undermining food security. Just as Odisha can balance rice and pulses with crops such as coffee, cotton, and export-grade tobacco, states across the region can identify commodities with export potential such as litchi in Bihar, lac and tamarind in Jharkhand, or maize and oilseeds in Chhattisgarh and develop them under compliance-ready frameworks. The principle is not crop-specific; it is about designing systems that allow farmers to capture greater value by meeting the requirements of premium markets.

The second implication is the centrality of compliance infrastructure as a public good. Accredited laboratories, certification mechanisms, and traceability platforms are not luxuries but necessities in today's agricultural trade. Once established, these systems benefit a wide array of commodities, from staples like rice to niche products such as spices or medicinal plants. Odisha's investment in such infrastructure would therefore demonstrate to other states how compliance systems can lift an entire agricultural ecosystem, not just a few crops.

A third implication relates to institutional strengthening. Across eastern and central India, FPOs and cooperatives exist in significant numbers but often struggle with operational and financial capacity. Odisha's emphasis on converting FPOs into functionally market-facing enterprises through professional management, working capital access, and quality-linked procurement offers a template for others. If demonstrated successfully, this approach could guide central support programs and state-level interventions in neighbouring regions.

Finally, Odisha's potential to align with emerging global trade regulations highlights the importance of proactive policy adaptation. The EU Deforestation Regulation (EUDR), for example, will have implications not just for Odisha's coffee but also for Jharkhand's lac, West Bengal's tea, and Madhya Pradesh's soybean exports. By investing early in compliance readiness, Odisha can show other states how to anticipate and prepare for regulatory shifts rather than respond reactively.

In this sense, Odisha can serve as a model for agricultural transformation in eastern India. Its journey would not only lift farm incomes within the state but also provide replicable lessons for the region as a whole. If Odisha succeeds in embedding compliance-driven, export-oriented systems into its agricultural economy, it will demonstrate how states with modest resources and smallholder-dominated production can still integrate meaningfully into global value chains. The broader implication is clear: by focusing on institutional strengthening, compliance infrastructure, and selective diversification, eastern and central India can collectively transition from low-value agricultural systems to more resilient, higher-income futures.

Section 8: Conclusion

Odisha's agricultural economy stands at a crossroads. For decades, the state has prioritized staples such as rice and, more recently, pulses an approach that has strengthened food security and ensured basic income stability for farming households. Yet, reliance on low-value, informally traded commodities has also constrained farmer earnings and left the state weakly connected to national and international value chains. The analysis presented in this paper suggests that Odisha can move beyond this trap through a carefully designed diversification strategy that selectively integrates higher-value, export-oriented crops into its agricultural system.

Coffee in Koraput, cotton in the western districts, and tobacco in limited pockets serve as diagnostic examples of how much potential remains untapped. Each of these commodities has proven global demand, yet in Odisha they remain underdeveloped due to gaps in post-harvest systems, certification, traceability, and institutional scaffolding. Addressing these gaps would not only enable farmers to capture greater value but also generate spillover benefits across the agricultural sector. Investments in accredited laboratories, traceability platforms, and certification systems, for instance, would strengthen compliance capacity for a wide range of crops, from staples like rice to emerging horticultural exports.

The central argument of this paper is that capital investment alone while important, is insufficient. Roads, warehouses, and processing units will not yield transformative results unless they are embedded in a wider institutional ecosystem. Odisha's opportunity lies in building this ecosystem strengthening Farmer Producer Organizations into genuine market enterprises, embedding traceability and certification as public goods, enabling access to working capital, and providing clear regulatory pathways for export facilitation. By aligning farmers, markets, financiers, and regulatory institutions, the state can unlock durable pathways to higher incomes and resilience.

This is not a call to replace food-security crops with cash crops, but rather to diversify production portfolios in a way that enhances household resilience. By combining staples with selective high-value commodities, Odisha's farmers can hedge against climatic, market, and procurement shocks while accessing new income streams. In doing so, they will not only strengthen their own livelihoods but also contribute to India's broader goal of scaling agricultural exports under compliance-driven, sustainability-oriented frameworks.

Finally, Odisha's journey holds broader significance for eastern and central India. States across this belt face similar structural constraints, and Odisha can serve as a demonstration of how smallholder-dominated systems can integrate into global markets. The lessons are clear: building compliance infrastructure as a public good, empowering farmer institutions to function as enterprises, and designing inclusive, climate-resilient programs can collectively transform low-value agriculture into a driver of prosperity.

With a long-term vision that emphasizes institutional strength, inclusivity, and sustainability, Odisha has the potential to become not only a contributor to India's agricultural growth but also a model of how resilient, export-oriented systems can emerge in regions historically perceived as marginal. The task ahead is not simple, but it is achievable. By balancing food security with diversification, and capital investments with institutional innovation, Odisha can set the stage for an agricultural economy that is more prosperous, more resilient, and better aligned with the demands of the future.

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