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Navigating Biodiesel Expansion, Traceability, and Climate Risk: A Review of Indonesia's Oil Palm Sector Outlook for the Third Quarter of 2026

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ABSTRACT

This article presents a qualitative literature review of the outlook for Indonesia's oil palm sector in the third quarter of 2026. Using various literature as a primary forecasting input and combining it with peer-reviewed studies, official statistics, industry reports, and policy documents published mainly since 2020, the paper synthesises thematic evidence across upstream, midstream, downstream, and governance dimensions. The review finds that Indonesia enters Q3 2026 with a broadly constructive but tightly balanced market structure: biodiesel expansion, especially the start of B50 in July 2026, strengthens domestic absorption; international palm oil prices remain firm; and export prospects continue, although under greater regulatory and traceability pressure. At the same time, structural constraints-ageing smallholder trees, uneven replanting, fragmented legality, traceability gaps, labour frictions, and the re-emergence of El Niño risk-limit the sector's room for complacency. The literature indicates that the decisive issue is no longer extensive expansion, but productivity-centred upgrading combined with inclusive governance. The paper argues that Indonesia's best Q3 2026 strategy is to align biodiesel policy, smallholder support, certification, legality, traceability, and climate resilience into a coordinated competitiveness agenda. The resulting outlook is cautiously optimistic: the sector has strong underlying fundamentals, but its long-run strength will depend on whether policy can convert current market strength into higher yields, better inclusion, and more credible sustainability performance.

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Introduction

Palm oil occupies a singular place in Indonesia's development trajectory because it links agriculture, energy, manufacturing, trade, rural livelihoods, and fiscal policy in a single commodity system. It is a food oil, an oleochemical feedstock, a source of biofuel, and a strategic export commodity. Recent literature also emphasises that oil palm is not simply a plantation crop; it is an entire territorial and institutional system in which mills, refineries, policy agencies, exporters, financiers, cooperatives, and downstream manufacturers jointly shape outcomes. That systemic perspective is especially important in 2026, as domestic energy policy and global market-access rules are simultaneously reshaping incentives across the entire value chain [1-4].

The urgency of examining Q3 2026 is straightforward. The literature indicates that B50 began in July 2026 and that domestic absorption is expected to remain very strong through the quarter. At the same time, the same presentation anticipates relatively firm international prices and projects a tighter stock position by the end of September 2026 than a complacent market narrative would suggest. In other words, Q3 2026 is a test of how Indonesia

balances a stronger domestic energy pull with export commitments, price management, and supply adequacy.

The global setting adds to that urgency. On the demand side, palm oil remains indispensable in many food and industrial uses. On the governance side, however, the sector is now judged more explicitly through legality, traceability, and deforestation-related compliance. The EU deforestation regime has strengthened the importance of geolocation, legality verification, and due diligence, while voluntary corporate zero-deforestation commitments and certification systems continue to influence procurement behaviour. The literature shows that these mechanisms do not affect all producers equally; they tend to benefit actors with stronger organisational capacity and better market connectivity, while exposing independent smallholders to more adjustment costs. [5,6].

A further reason for urgency is climate. The U.S. Climate Prediction Centre reported on 11 June 2026 that El Niño conditions were present and expected to strengthen into late 2026, with below-average convection near Indonesia already visible in the June discussion. For the oil palm sector, this matters not only because of possible yield effects, but also because it raises concerns about water stress, fire risk, and localised logistics disruptions during a period when supply-demand balances are already firm [7].

This article therefore aims to answer a practical and scholarly question: **what does the recent literature, interpreted qualitatively and triangulated with current official and industry materials, imply for the outlook of Indonesia's oil palm sector in Q3 2026?** The objective is not to produce a systematic review or a purely statistical forecast. It is to synthesise the most policy-relevant evidence on production, yields, supply chains, trade, pricing, sustainability, labour, finance, technology, climate, and governance to assess the likely direction of the sector through Q3 2026 and the policy priorities that follow.

Literature Review

Conceptual and Theoretical Foundations

The first useful conceptual lens is the **food-energy-land-use nexus**. In the Indonesian case, palm oil cannot be understood only as an agricultural export commodity. Biodiesel mandates convert part of the crop into an instrument of energy security and industrial policy. That means any sectoral outlook must account for interactions among food markets, energy substitution, land productivity, and trade incentives. The literature does this clearly by pairing projected production and exports with projected biodiesel consumption and domestic prices.

A second lens is the **value-chain or global production-network perspective**. Midstream actors—mills, refiners, traders, and large integrated groups—play a disproportionately important role in transmitting standards and incentives upstream. Recent work shows that midstream actors are increasingly central to whether sustainability goals become practical procurement rules or remain abstract declarations. This is particularly relevant for palm oil because fresh fruit bunches must be processed quickly, making spatial relationships between smallholders and mills fundamental to market access [5,6].

A third lens is **multi-level governance**. In palm oil, governance is layered: state regulation, export levies, biofuel mandates, public certification, private certification, company NDPE policies, and consumer-country due diligence rules interact rather than operate separately. The literature increasingly suggests that outcomes depend less on any single rule and more on whether rules are mutually reinforcing. If biodiesel incentives, replanting support, legality systems, and traceability requirements are misaligned, the sector can remain commercially strong while becoming institutionally fragmented [1-8].

Upstream dynamics

The upstream literature since 2020 has shifted attention from area expansion toward **yield gaps and replanting**. Smallholder productivity continues to lag behind estates on average, and several studies identify ageing trees, inconsistent seed quality, weak extension, fragmented planting systems, and financing constraints as persistent drivers of lower output. It has been estimated that the average technical efficiency of sampled Indonesian palm oil farmers is only about 58 per cent, implying substantial room for productivity improvement through better input use, seed quality, extension access, and organisational arrangements such as plasma participation [9].

The replanting literature makes the productivity issue even more concrete. It has been argued that Indonesia's expanded replanting subsidy is still insufficient by itself because farmers face a difficult 7-8-year income recovery period after replanting, alongside administrative and legality barriers [10]. Their conclusion is crucial for Q3 2026: the challenge is not merely to declare replanting support, but to design a

financial architecture that can absorb the income trough of immature palms. Without that, old trees remain in the ground, and productivity stagnates even when prices are strong [10].

The literature also shows that the **type** of replanting matters. It has been found that replacing unproductive plantations with better-managed smallholder systems can improve a broader set of Sustainable Development Goal outcomes than industrial replanting alone [11]. This does not imply that estates are unimportant; rather, it suggests that a productivity-centered transition can be more socially and environmentally effective when it is smallholder-inclusive. That is a highly relevant message for a Q3 2026 outlook in which domestic demand is rising, but extensive expansion is politically and environmentally harder to justify [2-11].

Climate and ecological conditions remain an upstream constraint, but the newer literature is more differentiated than earlier blanket narratives. The sector is indeed exposed to fire, water stress, biodiversity loss, and peat-related risks, yet the policy relevance lies in identifying where risk is highest and which institutional tools reduce it. With El Niño conditions reported in June 2026, climate is not just a structural background issue but a near-term operational variable for Q3 2026. Higher vigilance in fire management, water conservation, and mill logistics becomes part of prudent sector management, especially in regions where dry conditions amplify local supply shocks [7].

Midstream and Downstream Dynamics

The midstream segment has become more important because market access now depends on what mills and refiners can document and verify. It has been shown that certified mill markets in Indonesia have not drawn in all categories of smallholders equally [5]. Contract or tied smallholders are overrepresented around certified mills, while independent smallholders contribute one-third of regional production in the study but only a small fraction of certified mill supply. The implication is not that certification inevitably excludes smallholders, but that inclusion is organizationally conditional. Some producers are better positioned than others because of geography, contractual ties, or buyer preferences [5].

The downstream literature also emphasises the growing strategic role of **biofuel policy**. Indonesia's biodiesel program has long supported domestic demand, but the start of B50 in July 2026, as shown in the literature, marks a new stage of domestic pull. That matters for Q3 2026 because stronger mandated absorption can stabilise domestic demand and support upstream prices, but it may also reduce the cushion available for exports or stocks if production growth underperforms. The balance between biofuel support and export flexibility therefore becomes central.

Price formation in Q3 2026 must be read through both global and domestic channels. World Bank data show international palm oil prices rising from 2024 into 2025 and remaining elevated in early 2026, while the literature projects global prices in the USD 1,230-1,260 per tonne range for July-September 2026. At the same time, the presentation explicitly notes that domestic prices do not fully mirror global prices because of export levies, duties, and the increased importance of local market absorption. This reinforces a key analytical point: in Indonesia, palm oil price dynamics are no longer reducible to world prices alone; domestic policy architecture materially shapes pass-through [12].

Governance, Certification, and Traceability

The governance literature is particularly important for Q3 2026 because market access is increasingly rule-dependent. RSPO remains the dominant global multi-stakeholder certification system, and in 2026 it reports more than 5.4 million certified hectares, over 19.3 million tonnes of estimated sustainable palm oil production, and nearly 8,000 facilities with supply-chain certificates. It also endorsed the Indonesia and Malaysia national interpretations of the 2024 Principles and Criteria, with effectiveness from 31 May 2026. This means Q3 2026 is not merely a period of market activity; it is also an early implementation period for an updated certification framework [13].

Yet certification outcomes are mixed rather than uniformly positive. It has been found that palm oil sustainability certification in Indonesia improved poverty outcomes in some village contexts but not in others, with baseline livelihood conditions shaping the result [8]. It has been similarly emphasized that there are trade-offs between environmental and development outcomes [1]. These findings are highly relevant because they caution against expecting certification, by itself, to solve inclusion problems. Certification can work, but its benefits depend on local institutions, support systems, and prior integration into markets [1-8].

Recent research extends that point into the era of corporate zero-deforestation commitments. It has been shown that the reach of these commitments to Indonesian smallholders remains limited [6]. Awareness of NDPE-type restrictions is low among independent smallholders, bottom-up traceability is incomplete, and price differentiation is weak. The authors do not conclude that exclusion is always active or deliberate. Rather, they show that current systems often fail to transmit rules, incentives, and capabilities far enough upstream. For Q3 2026, this suggests that traceability pressure will matter most where mills and nearby suppliers already have stronger organisational capacity [6].

The EUDR intensifies those pressures. The regulation fixes a deforestation cut-off date of 31 December 2020 and covers oil palm among the relevant commodities. Although the timetable for application became politically contested and was subject to delay debates, the strategic direction is unmistakable: producer-country legality and downstream traceability increasingly function as market-entry conditions rather than optional reputational tools. For Indonesia, this means Q3 2026 is a transition phase in which companies, mills, and producer groups that can document origin and legality will hold an advantage, especially in premium or compliance-sensitive channels [14-15].

Methods

This study uses a **qualitative literature review** approach and explicitly does **not** follow the protocol of a systematic literature review. The objective is interpretive synthesis rather than exhaustiveness. A qualitative literature review is appropriate here because the research problem is forward-looking and integrative: it requires thematic interpretation across agronomy, trade, governance, certification, climate, energy policy, and smallholder development rather than a narrowly defined causal question suitable for tightly standardised screening rules [2].

The source base was organised around three layers. The first layer was the literature, treated as the principal near-term forecasting input for Q3 2026 because it contains explicit monthly and quarterly projections on prices, domestic consumption, exports, and stocks. The second layer consisted of peer-reviewed journal articles published mainly from 2020 onward, especially recent

work in reputable outlets on certification, replanting, resilience, traceability, and governance. The third layer included official and primary materials such as World Bank commodity data, BPDP reports and program pages, BPS statistics, RSPO documents, EU legal texts, and official climate outlooks [12].

The inclusion logic prioritised materials that met at least one of the following criteria: they addressed Indonesia directly; they examined globally relevant palm oil governance mechanisms with clear implications for Indonesia; they were published by authoritative public institutions; or they offered evidence on sector themes central to Q3 2026, such as biodiesel, replanting, certification, smallholders, traceability, trade, and climate risk. English-language materials were prioritised for international comparability, but Indonesian materials were also included where they offered authoritative policy or statistical content [2].

The review's principal limitation is that it works in a fast-moving policy environment. In particular, EUDR implementation timelines and European political debates changed repeatedly between 2024 and 2025, and not all official Indonesian monthly sector data were equally easy to retrieve in machine-readable form. The review thus emphasises high-confidence themes and triangulated interpretations rather than false precision where public information remains fluid [16].

Results

Thematic Findings on the Q3 2026 Outlook

The literature supports a baseline reading of Q3 2026 as a **tight but not crisis-level** quarter. Projected Q3 production of 11.05 million tonnes against domestic consumption of 7.16 million tonnes and exports of 4.35 million tonnes leaves little room for complacency, especially with end-September stocks projected around 1.07 million tonnes. That configuration suggests a market in which modest supply disruptions could have noticeable price effects, but in which the system still remains operable if logistics and weather stay within normal ranges. filecite turn0file0

The price side of the outlook is correspondingly firm. The presentation projects global prices at roughly USD 1,230 in July, USD 1,240 in August, and USD 1,260 in September 2026. Those projections sit above the World Bank's reported monthly average for May 2026 and imply a constructive tone for revenue realisation. The domestic price path, however, is projected to be flatter and more policy-conditioned, consistent with the presentation's note that local price formation is influenced by export levies and the growing weight of domestic absorption [12].

The first major thematic finding from the literature is that **domestic demand strength is real and structurally important**. The biodiesel program is no longer a marginal side-market; it is a core determinant of domestic balance sheets. With B50 beginning in July 2026 according to the literature, Q3 2026 should be understood as the first quarter in which this higher blend environment begins to shape expectations more directly. This strengthens the domestic floor for palm oil demand and reduces dependence on export demand alone, which is strategically positive for price support and energy security. filecite turn0file0

The second thematic finding is that **stronger domestic absorption does not remove structural supply-side weaknesses**. It has been demonstrated that there is a problem of persistent technical inefficiency[9], while it has been shown that delayed replanting remains economically rational for many farmers unless broader support mechanisms are in place [10]. It has been further highlighted

that resilience among smallholders is highly heterogeneous, with older independent farmers often less resilient than those who historically benefited from organised support [4]. Together, these findings imply that production can remain positive in the short run while deeper supply fragilities continue beneath the surface [4-10]. The third thematic finding is that **certification and traceability remain unevenly distributed**. It has been shown that contract smallholders are much better represented in certified mill markets than independent smallholders [5]. It has been similarly found that awareness and support linked to zero-deforestation commitments remain weak among independent producers [6-17]. This matters for Q3 2026 because regulatory and private procurement standards are not abstract future issues-they already shape who can sell into which channels, under what conditions, and at what margins [5,6].

The fourth thematic finding is that **governance infrastructure is improving but not yet fully synchronized**. RSPO's updated national interpretations for Indonesia became effective in late May

2026, demonstrating continued evolution in voluntary standards. BPDP continues to maintain annual and performance reporting, replanting support structures, and export-levy-related policy communication. But the literature suggests that upgrading one layer of governance does not automatically align the others. The practical bottleneck often lies in coordination between legality systems, replanting requirements, mill procurement practices, and the capacity of farmer groups [18].

The fifth thematic finding is that **climate now materially conditions the quarter**. The June 2026 ENSO discussion confirmed that El Niño conditions were present and likely to strengthen. This does not prove severe Q3 losses in advance, but it raises downside risk for yields, harvesting conditions, river transport, and fire control. Because Q3 2026 already appears relatively tight in stock terms, weather risk deserves more attention than it would in a looser supply year [7].

Key Indicator Comparison for Q3 2026

As illustrated in Figure 1, Indonesia's palm oil market enters Q3 2026 with relatively strong demand but increasingly tight supply conditions, resulting in firm price expectations throughout the quarter.

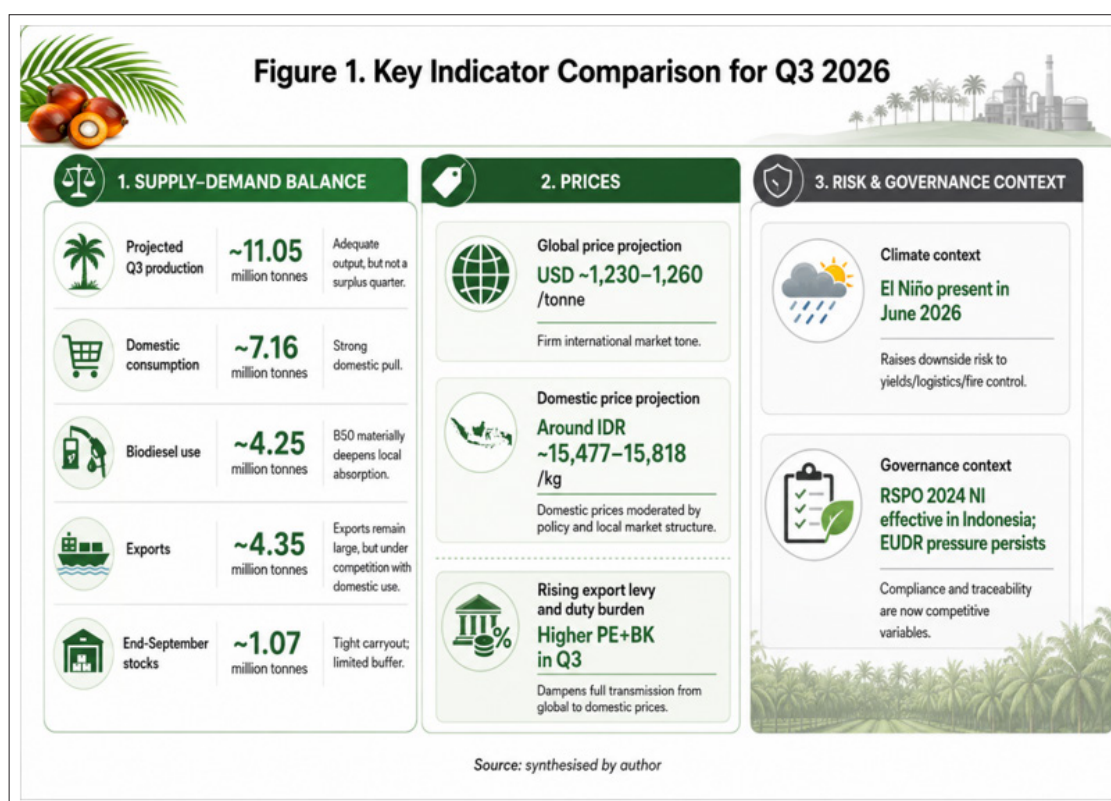


Figure 1: demonstrates that the Indonesian palm oil sector is expected to remain fundamentally balanced rather than oversupplied during Q3 2026. Production is projected at approximately 11.05 million tonnes, while combined domestic consumption and exports account for almost the entire output, leaving relatively modest closing stocks of around 1.07 million tonnes. Such inventory levels imply limited flexibility in responding to unexpected production shocks or demand surges. Simultaneously, projected international CPO prices show a gradual increase from July to September, reflecting expectations of sustained global demand alongside tighter market fundamentals. Collectively, these indicators suggest that Indonesia is likely to experience a supportive pricing environment throughout the quarter, although this favourable outlook remains conditional upon stable weather conditions, uninterrupted logistics, and successful implementation of the B50 biodiesel programme.

A second important implication illustrated by Figure 1 is the growing importance of domestic demand in determining market equilibrium. Biodiesel expansion increasingly absorbs national production, reducing dependence on export markets as the sole driver of industry performance. This structural shift enhances Indonesia's energy security while simultaneously providing a stronger domestic price floor. However, stronger domestic absorption also narrows the buffer between supply and demand, making productivity improvements, timely replanting, and efficient supply-chain management increasingly important for maintaining market stability.

Policy and Governance Comparison

As shown in Figure 2, the institutional environment governing Indonesia's palm oil industry has evolved into a multi-layered system in which domestic industrial policy coexists with international sustainability and traceability standards.

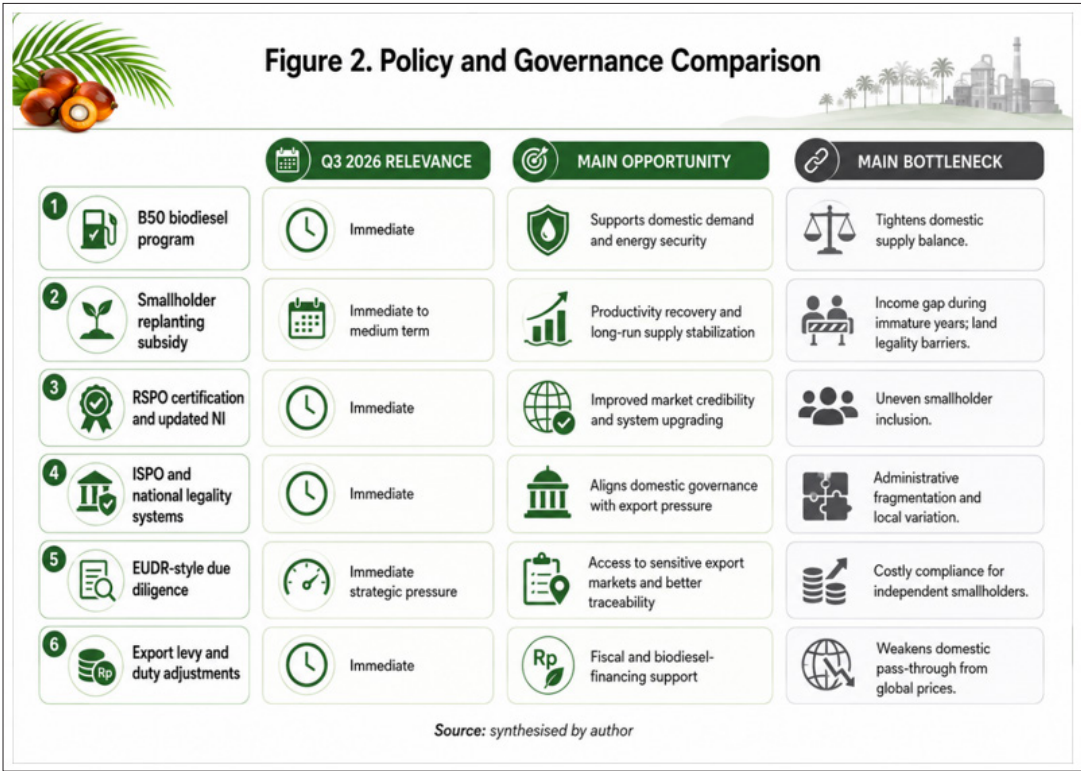


Figure 2: illustrates that the competitiveness of Indonesia's palm oil sector increasingly depends upon policy coordination rather than individual regulations operating independently. Domestic initiatives-including biodiesel mandates, the Indonesian Sustainable Palm Oil (ISPO) framework, replanting programmes, and export levy mechanisms-primarily seek to strengthen production capacity, value addition, and national energy security. At the same time, external governance mechanisms such as the European Union Deforestation Regulation (EUDR), Roundtable on Sustainable Palm Oil (RSPO) certification, and corporate zero-deforestation commitments introduce additional requirements related to legality verification, geolocation, traceability, and environmental accountability [15-19].

The comparison further demonstrates that these governance instruments are complementary rather than mutually exclusive. Domestic policies primarily stimulate production and downstream industrialisation, whereas international standards increasingly determine access to premium export markets. Consequently, Indonesia's long-term competitiveness depends not only on expanding output but also on integrating certification systems, digital traceability, legality verification, and smallholder support into a coherent governance framework capable of satisfying both domestic policy objectives and international market expectations[20].

The Palm Oil Supply Chain

As presented in Figure 3, the palm oil value chain extends well beyond agricultural production, encompassing multiple stages where quality assurance, traceability, legality verification, and certification become operational requirements. This flow highlights why midstream actors matter so much. Mills and refiners are the points where quality, traceability, legality, and certification requirements become operational, and that is exactly why smallholder inclusion depends heavily on organizational links to these nodes [5-21].

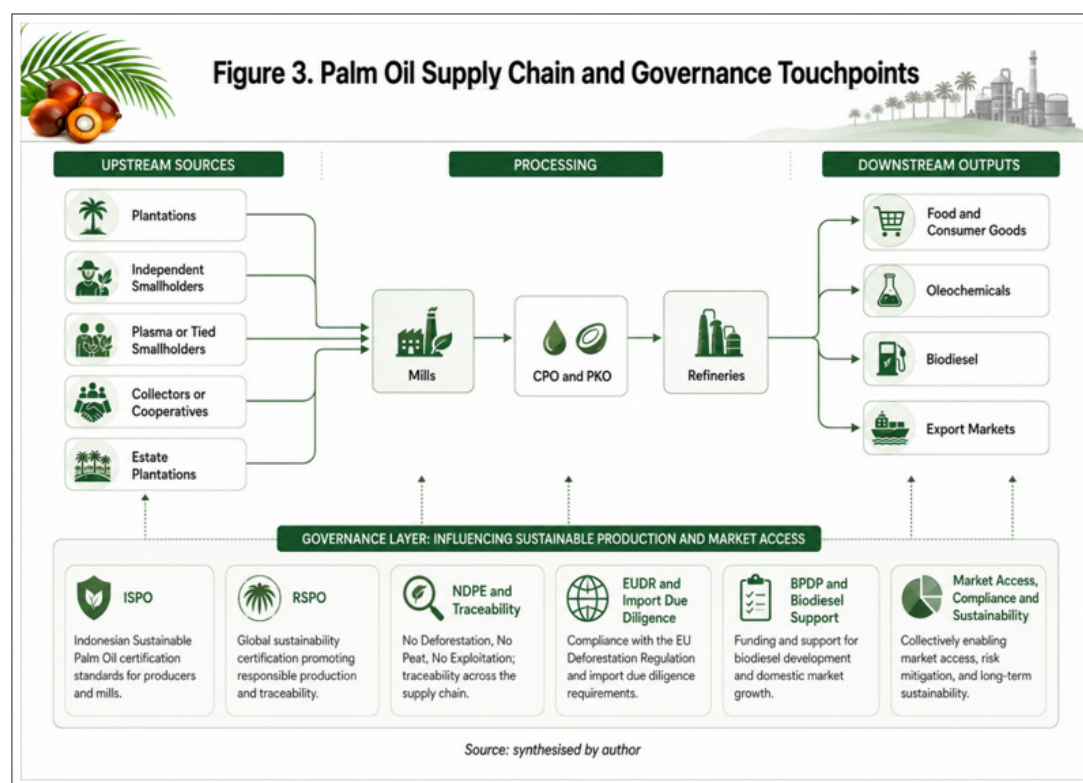


Figure 3: highlights that Indonesia's palm oil industry operates as an integrated value chain rather than a collection of isolated production activities. Beginning with smallholders and estate plantations, fresh fruit bunches move through mills, refiners, processors, traders, exporters, and finally domestic or international consumers. Each stage contributes value while simultaneously serving as a checkpoint for quality control, sustainability verification, and regulatory compliance. Among these actors, mills occupy a particularly strategic position because they represent the first point at which harvested fruit enters formal commercial supply chains and where documentation, traceability, and certification requirements become operational [21].

The figure also emphasises why strengthening organisational relationships between independent smallholders and mills has become increasingly important under emerging sustainability regulations. Producers that maintain formal contractual arrangements or cooperative membership generally possess greater access to certification, traceability systems, and premium markets than isolated independent farmers. Consequently, improving supply-chain integration through digital traceability platforms, producer cooperatives, and strengthened extension services represents not only a governance objective but also an important mechanism for improving market inclusion and long-term competitiveness[20,21].

Policy and Market Timeline Shaping Q3 2026

As illustrated in Figure 4, the outlook for Q3 2026 should be interpreted as the outcome of several interconnected policy and market developments that accumulated over preceding years rather than a single isolated event. The timeline shows that Q3 2026 is best understood as a transition quarter in which several strands-energy policy, climate, and supply-chain governance-converge at the same moment [18].

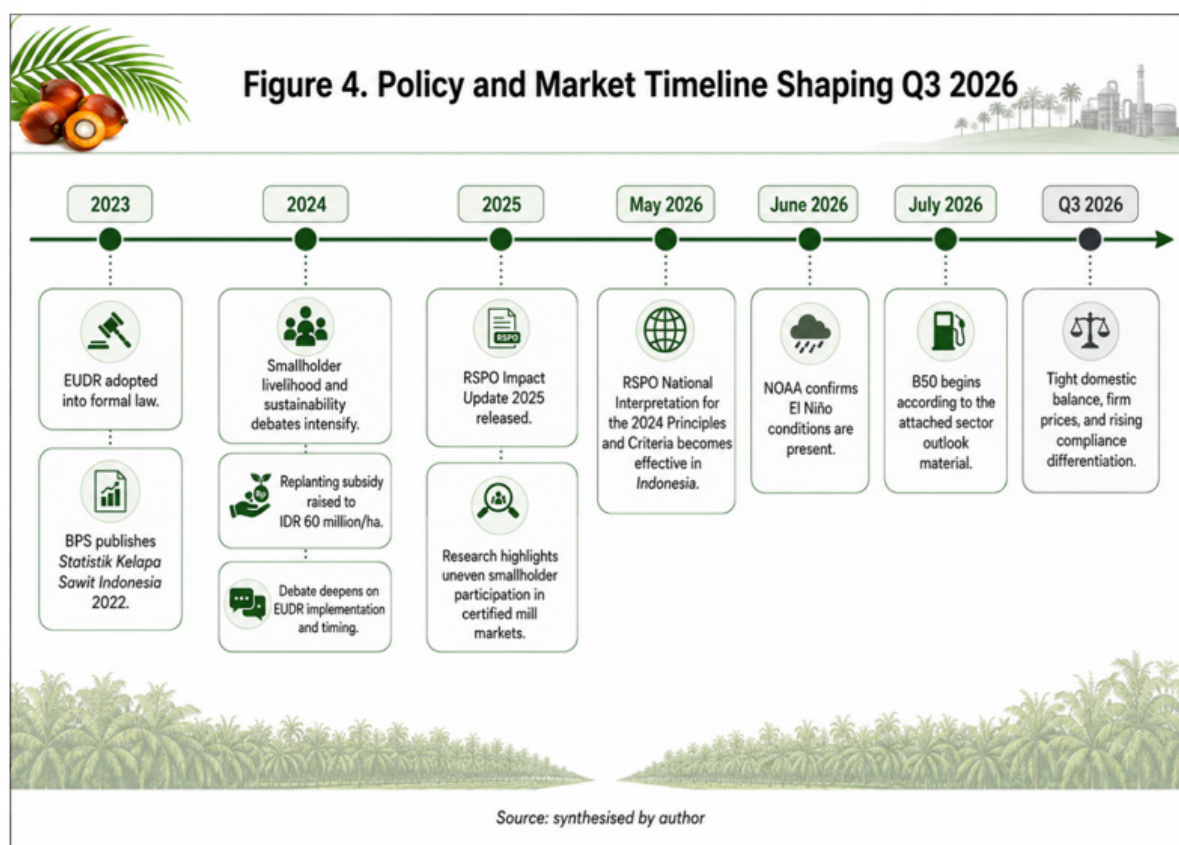


Figure 4 places the Q3 2026 outlook within a broader temporal context by illustrating the progression of significant developments affecting Indonesia's palm oil sector. Earlier implementation of sustainability standards, gradual strengthening of traceability requirements, expansion of biodiesel mandates, evolving export regulations, and the emergence of El Niño conditions collectively shape the environment entering the third quarter of 2026. Rather than representing isolated policy initiatives, these events reinforce one another and progressively redefine the institutional and commercial landscape facing producers, processors, and exporters[22].

The timeline also demonstrates that Q3 2026 represents a transitional phase rather than the final stage of sectoral transformation. The commencement of the B50 biodiesel programme increases domestic demand at the same time that international markets continue strengthening sustainability expectations through EUDR implementation and enhanced corporate due diligence. Simultaneously, projected climate variability introduces additional production uncertainty. The convergence of these economic, regulatory, and environmental drivers explains why the quarter represents an important strategic turning point in which Indonesia's ability to improve productivity, strengthen traceability, and enhance governance coordination will substantially influence the sector's longer-term competitiveness beyond 2026 [22,23].

Discussion and Analysis

The central analytical implication of the evidence is that Indonesia's Q3 2026 outlook is **supportive in price terms but demanding in institutional terms**. A sector can enjoy strong prices for some time even if it carries unresolved structural issues. That is essentially where Indonesian palm oil appears to stand in Q3 2026. The sector benefits from strong domestic biodiesel demand, continuing export

relevance, and a global commodity environment that still values palm oil's yield advantage and versatility. But that same sector is also being asked to deliver more on legality, traceability, and inclusion than at any previous point in its recent history [12].

From a policy-economy standpoint, B50 is probably the most immediately important supportive factor. Domestic use anchored by biodiesel reduces vulnerability to sudden export demand swings and supports a stronger domestic floor for prices. In a country that has repeatedly highlighted energy security and downstream industrialisation as national priorities, this is a rational strategic direction. The risk, however, is that domestic demand can become so strong that it narrows the system's operational cushion if weather, replanting bottlenecks, or output disappointments occur. Hence the Q3 2026 challenge is not whether biodiesel is good or bad for the sector in principle, but whether it is synchronised with supply-side upgrading [10].

This is where the literature on replanting becomes decisive. Strong domestic demand can support prices, but it cannot by itself solve the underlying productivity problem of aging smallholder trees. It has been made a persuasive case that even doubled subsidies may remain insufficient if farmers still face a long period of reduced income after replanting[10]. It has been similarly shown that there remains substantial room to raise technical efficiency [9]. Together, these studies point toward the same conclusion: **the long-run sustainability of biodiesel expansion depends on productivity gains, not only on demand mandates** [10].

The literature also suggests that the sector's governance challenge is now less about announcing standards and more about **deep implementation**. RSPO has updated standards and substantial scale; EUDR has established a powerful external signal; and many firms have NDPE-type commitments. However, it has been

shown that implementation still thins out as one moves toward independent smallholders [6-24]. This means market segmentation is likely to intensify unless public policy and supply-chain actors invest more seriously in smallholder aggregation, legality assistance, geolocation, training, and data systems. Q3 2026 will not resolve that problem, but it is likely to make it more visible [5].

A fair reading of the evidence does not support the argument that stricter governance necessarily undermines the sector. On the contrary, the more constructive interpretation is that governance rules are becoming part of the sector's competitiveness infrastructure. Firms and regions that can document land legality, producer identity, and compliant sourcing are better positioned to retain or expand access to sensitive markets. The real danger is not governance per se, but **asymmetric readiness**. If some firms and cooperatives can comply, while independent smallholders cannot, the sector may remain strong in aggregate while becoming more internally unequal [6-8].

Another important insight from the recent literature is that smallholder inclusion should be viewed as a **productivity and resilience issue**, not merely a social one. It has been shown that different smallholder classes have different resilience profiles, with older local independent farmers often more vulnerable [4]. It has been argued that robust support for independent smallholders can secure livelihoods without increasing forest loss[2]. It has been further suggested that smallholder-oriented replanting strategies can support a wider set of development outcomes than less inclusive approaches [11]. These studies align around a common policy logic: Indonesia's most promising path is not expansion through new frontiers, but upgrading through existing land, especially among smallholders[4].

The climate signal reinforces that productivity-centred strategy. If El Niño strengthens through late 2026, new area expansion in more fragile landscapes would look increasingly risky. In contrast, better agronomy, water management, fire prevention, and replanting on existing land would become even more attractive. This gives a policy rationale for coupling biofuel policy with climate adaptation and replanting support. The sector's Q3 2026 outlook is therefore not just about market management; it is about whether current market strength is used to finance and accelerate structural improvement [7-22].

Scenario Analysis

A **baseline scenario** for Q3 2026 is the most plausible outcome. In this scenario, production broadly follows the literature, international prices remain firm, B50 sustains domestic demand, and exports continue but are somewhat constrained by tighter domestic balances. Climate stress remains manageable rather than extreme. Governance friction persists, especially for smallholders, but does not generate an abrupt sector-wide disruption. This is consistent with the present evidence [12-22].

An **upside scenario** would be driven by three reinforcing conditions: field productivity performs slightly better than projected; climate impacts remain mild during the quarter; and compliance-oriented buyers, mills, and producer groups improve traceability and procurement efficiency more quickly than expected. Under that scenario, Indonesia benefits from firm prices, stronger domestic offtake, and continued export earnings while beginning to close some governance gaps. Such an outcome would validate the argument that the sector's best path lies in combining market strength with institutional upgrading [18-22].

A **downside scenario** would combine stronger-than-expected climate stress, slower-than-expected supply response, and heavier policy friction. Tight stocks would then elevate volatility; domestic demand from biodiesel could intensify strain on the balance sheet; and actors with weak legality or weak traceability would face sharper exclusion risks. This scenario is not the base case, but it is credible enough to justify precautionary policy [7-22].

Open Questions and Limitations

Some policy variables remain fluid. The longer-run application and enforcement path of EUDR-related obligations was politically contested in 2024–2025, so any Q3 2026 assessment should treat European market-access timing as a moving institutional environment rather than a fully settled endpoint [15,16].

The literature is highly useful as a primary forecasting input, but it is a presentation, not a full statistical annex. For that reason, this review uses it mainly as the quarter-specific anchor and relies on peer-reviewed and official sources for structural interpretation.

Finally, not all Indonesian monthly sector datasets are equally transparent or easily machine-readable in public form. That limits precision in some short-run comparisons, but it does not alter the main thematic conclusions of this review [25].

Conclusion

This qualitative literature review finds that Indonesia's oil palm sector enters Q3 2026 with a **cautiously favourable near-term outlook**. Prices are likely to remain firm, domestic demand has strengthened materially through biodiesel policy, exports continue to matter, and Indonesia still holds deep structural advantages in scale, integration, and the agronomic efficiency of oil palm relative to alternative oil crops. The literature, read alongside official price data and the recent literature, supports that overall conclusion.

At the same time, the review shows that Q3 2026 is not a quarter that permits complacency. The biggest strategic risk is not the disappearance of demand, but the persistence of **structural bottlenecks beneath favourable prices**. Ageing trees, uneven replanting, weak legality documentation, incomplete traceability, differentiated smallholder access to mills, and climate exposure continue to shape the sector's underlying resilience. In short, market strength can mask institutional weakness for a while, but it cannot solve it automatically.

The most important substantive conclusion is that Indonesia's future competitiveness in palm oil will depend more on **intensive upgrading** than on **extensive expansion**. The literature consistently points to four levers: better replanting design, stronger smallholder support, more integrated traceability and legality systems, and closer alignment between domestic energy policy and long-run supply capacity. That agenda is compatible with a positive or neutral view of palm oil because it treats the sector as a strategic national asset that should be strengthened through better governance rather than weakened through neglect or indiscriminate restriction.

Policy Recommendations

The first recommendation is to move from a **subsidy-only replanting policy** to an **income-bridge replanting policy**. The evidence suggests that the enlarged subsidy is helpful but insufficient. Policymakers should therefore combine grants with income-support bridging instruments, concessional credit, insurance, certified seed access, and simplified group-based

administrative pathways, especially for independent smallholders. The second recommendation is to treat **smallholder inclusion as competitiveness policy**. Mills and refineries supplying sensitive markets need stronger incentives to source from organised independent smallholders, not only from tied growers. This could involve geolocation support, cooperatives, digital registry systems, legality assistance, and shared traceability infrastructure at mill-shed level.

The third recommendation is to improve synchronisation between **biodiesel mandates, food-market management, and export policy**. B50 can strengthen the domestic floor for palm oil, but it should be accompanied by transparent balance-sheet monitoring so that the trade-off between domestic use, exports, and reserve adequacy is managed proactively rather than reactively.

The fourth recommendation is to use Q3 2026 as an opportunity to strengthen **governance credibility**. Indonesia should continue improving ISPO implementation, support RSPO-compliant upgrading where commercially relevant, and build practical interoperability between national legality systems and international due-diligence requirements. The objective should not be to copy external rules uncritically, but to ensure that Indonesian producers-especially smallholders-can remain present in high-value markets on administratively realistic terms.

The fifth recommendation is to mainstream **climate adaptation** into sector strategy. With El Niño conditions already present in June 2026, Q3 2026 is an appropriate moment to strengthen fire prevention, water management, extension services on drought resilience, and localised logistics planning. A more climate-resilient palm oil sector is also a more price-resilient and governance-credible one.

In conclusion, Indonesia's oil palm sector outlook for Q3 2026 is best characterised as **firm, strategic, and transitional**. The quarter is likely to confirm the sector's continuing economic importance. But its larger significance will lie in whether Indonesia uses this period of relatively favourable prices and strong domestic demand to accelerate the productivity, inclusion, and traceability upgrades that will determine the sector's strength beyond 2026.

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