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Rebalancing Global Palm Oil Governance: Smallholder Collective Agency, Inclusive Sustainability, and the Emergence of the World Coalition of Oil Palm Smallholders

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ABSTRACT

Oil palm smallholders occupy a paradoxical position in global commodity governance. They contribute substantially to production and rural livelihoods but frequently remain weakly represented in decisions concerning certification, traceability, market access, environmental compliance, and trade regulation. This qualitative literature review synthesizes evidence published during 2020–2026 to examine how structural constraints, collective action, sustainability standards, market power, agronomic upgrading, replanting, and deforestation-free supply-chain requirements shape smallholder participation in the palm oil economy. It uses the establishment of the World Coalition of Oil Palm Smallholders (WCOPS) in August 2026 as an emerging institutional development through which wider governance problems can be interpreted. The synthesis identifies six interconnected findings: representation deficits remain embedded in sustainability governance; certification depends strongly on organizational, legal, financial, and technical capabilities; fair farm-gate prices are integral to sustainability; collective action can reduce transaction costs but requires durable institutions; productivity improvement and replanting require complementary finance and extension; and increasingly demanding traceability regimes risk uneven smallholder participation. The article develops a Voice Capability Market Power Sustainable Upgrading Resilience framework and argues that smallholder inclusion should move beyond compliance assistance toward meaningful participation in rule formation, implementation, and cost sharing. WCOPS therefore represents a potentially important experiment in transnational smallholder agency, although its future influence will depend on representativeness, accountability, technical capacity, financing, and measurable implementation.

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Received: October 01, 2026; **Accepted:** October 07, 2026; **Published:** October 15, 2026

Keywords: Oil Palm Smallholders, WCOPS, Global Commodity Governance, Collective Action, Inclusive Sustainability, Certification, Farmer Organizations, Fair Trade, Traceability, Deforestation Free Supply Chains

JEL Classification: F13; Q13; Q17; Q18; Q56

Introduction

Palm oil is one of the most productive and economically important vegetable oils in international markets, yet its expansion has generated persistent controversy over deforestation, biodiversity loss, greenhouse-gas emissions, labor conditions, land conflicts, and the distribution of economic benefits. These controversies have stimulated an increasingly complex architecture of public regulation, voluntary certification, corporate sourcing commitments, national sustainability standards, jurisdictional programs, and trade-related environmental requirements. Within this architecture, oil palm smallholders occupy a distinctive position. They are economically important contributors to production and rural development, while simultaneously facing structural limitations in capital, technical services, land documentation, market access, bargaining power, and institutional representation [1-4].

The socioeconomic significance of smallholder oil palm production cannot be reduced to a simple narrative of either rural prosperity or environmental harm. Evidence from Indonesia

shows that oil palm adoption can raise household consumption and provide opportunities for income diversification, while the distribution of these benefits depends strongly on prior asset endowments, access to markets, institutional support, and household characteristics. Changes in land use associated with oil palm can also alter household nutrition, labor allocation, and gender roles. Similar heterogeneity is evident outside Southeast Asia, where the outcomes of smallholder participation in oil palm value chains depend heavily on contractual arrangements, input access, processing infrastructure, and policy support [5-7].

At the same time, sustainability governance has increasingly shifted responsibilities toward producers. Smallholders may be asked to demonstrate legal land status, improve agronomic practices, protect environmentally sensitive areas, document labor conditions, participate in certification, map farm boundaries, provide geolocation information, establish traceability, and comply with rapidly evolving market requirements. However, these demands are often introduced in settings where independent farmers lack reliable extension, affordable finance, formal documentation, farmer organizations, or direct access to mills and downstream buyers. Studies of Indonesia repeatedly find that sustainability certification is considerably more difficult for independent farmers who were historically excluded from government-supported schemes or organized supply chains [8-11].

This problem is broader than certification. Global commodity governance involves questions of political authority, legitimacy, responsibility, accountability, and distribution. Transnational sustainability initiatives have frequently been designed or strongly influenced by governments, firms, non-governmental organizations, and consumer-market actors located outside producing communities. Consequently, researchers have increasingly asked whether the perspectives of producers in the Global South are adequately reflected in sustainability governance, and whether governance mechanisms genuinely redistribute decision-making authority or merely expand producer compliance obligations [12-15].

Against this background, the establishment of the World Coalition of Oil Palm Smallholders (WCOPS) constitutes an important emerging institutional development. Contemporary reporting on the 2026 International Palm Oil Smallholder Forum indicates that WCOPS was formally declared in Nusantara, Indonesia, on 27 August 2026, with 12 farmer organizations from seven producing countries Indonesia, Malaysia, Nigeria, Ghana, Thailand, Côte d'Ivoire, and Honduras identified as founding participants [16].

The WCOPS joint statement identified six major priorities: stronger smallholder representation in global governance; inclusive rather than punitive sustainability; stabilization and greater fairness in fresh fruit bunch (FFB) pricing and trade; creation of a global communication and advocacy coalition; acceleration of circular-economy approaches and Good Agricultural Practices (GAP); and opposition to discriminatory trade barriers, including calls for greater recognition of producer-country sustainability standards. These priorities are analytically significant because they connect issues that are often treated separately in academic debates, including governance, certification, farmer organization, pricing, agronomy, investment, sustainability, and international trade.

Nevertheless, WCOPS is too recent for credible ex-post evaluation. There is not yet sufficient peer-reviewed evidence to determine whether it will achieve sustained representation, alter global rule-making, improve farm-gate prices, accelerate certification, or produce measurable environmental and livelihood outcomes. The coalition is therefore treated in this article not as a demonstrated solution but as an **emerging institutional response to documented structural problems**.

This distinction generates the central research question: How can the emergence of transnational smallholder collective action, exemplified by WCOPS, be understood within the changing architecture of global sustainable palm oil governance? Framing the question in this way allows the review to evaluate WCOPS as an emerging governance response rather than to presume its effectiveness.

The review addresses this question by examining four subsidiary issues. First, what structural conditions constrain meaningful smallholder participation in sustainability governance? Second, what does recent literature reveal about certification, market power, agronomic capability, finance, replanting, and traceability? Third, under what conditions can collective action strengthen farmers' economic and institutional position? Fourth, how well do the six WCOPS priorities correspond to problems documented in the scholarly literature?

The article's principal contribution is an integrated framework linking **Voice, Capability, Market Power, Sustainable Upgrading, and Resilience**. Rather than viewing smallholder

sustainability as a narrow matter of farm-level compliance, the framework conceptualizes sustainability as a governance process involving representation, resource distribution, economic viability, institutional capability, and shared responsibility.

Literature Review

Global commodity governance and the smallholder representation problem

The governance of palm oil has evolved from primarily state-centered agricultural and trade regulation toward a more polycentric configuration involving voluntary sustainability standards, corporate commitments, national certification schemes, public regulation, subnational initiatives, financial institutions, and consumer-country policies. This institutional proliferation has created opportunities for innovation but also conflicts over legitimacy and authority [17]. Demonstrate that private standards and public regulations can interact through complementarity, competition, and antagonism, while show that the Indonesian Sustainable Palm Oil system cannot be understood independently from broader contestation over governance authority and international sustainability norms.

This raises the question of who has meaningful influence over the rules. Argue that the agency of actors from the Global South remains underexamined in sustainability governance research, even though these actors develop their own institutional responses to externally generated standards. Macdonald (2024) similarly emphasizes that accountability in global sustainable commodity governance is deeply political rather than purely technical. Jurisdictional approaches provide one possible route for broadening sustainability governance beyond individual certified supply chains, yet their effectiveness depends on local coalitions, policy contexts, resource mobilization, and power relations.

These findings suggest a distinction between **being governed and participating in governance**. Smallholders may attend consultations, receive training, or join certification programs without gaining significant influence over rule formulation. A representation-oriented approach therefore asks not only whether farmers comply with sustainability rules but whether they have meaningful opportunities to influence standards, implementation procedures, cost distribution, and market incentives.

WCOPS directly addresses this distinction by demanding stronger smallholder representation in global governance. The coalition's founding statement emphasizes that farmers should not merely receive the consequences of policy decisions but should participate in shaping those decisions and should have a more equitable bargaining position within the industry.

Certification, Inclusion, And Structural Inequality

Certification is one of the most extensively studied mechanisms of palm oil sustainability governance. Yet evidence increasingly indicates that certification outcomes depend on conditions that predate the certification process itself. Found that independent smallholders' willingness and capacity to maintain RSPO certification depended partly on external support and perceived financial benefits. Similarly showed how formal sustainability requirements encounter complex farm-level realities in Jambi.

Provide especially strong evidence that structural disadvantage matters. Their analysis found that independent farmers who had historically been excluded from government planning, extension, and organized smallholder schemes faced greater obstacles to certification. The implication is important: certification cannot

automatically compensate for unequal access to institutions accumulated over previous decades.

The same logic appears in later research. Found that many successfully certified independent groups had histories as former scheme smallholders and therefore entered the certification process with clearer land status and stronger organization. Certification also remained dependent on external facilitation because regulatory documentation and recurrent certification costs could be complex and expensive.

Evidence from Malaysia and Thailand reinforces the importance of social and institutional condition [18]. Document Malaysia's use of Sustainable Palm Oil Clusters to organize independent smallholders under MSPO [19]. Emphasize both benefits and barriers associated with certification, while [20]. Find that perceived economic benefits, social interaction, shared identity, and communication influence certification participation [21]. Show that farmer-group membership, trust, and perceptions of certification objectives matter significantly in Thailand.

The review by is particularly relevant because it concludes that evidence of positive sustainability impacts among palm oil smallholders remains limited and that substantial implementation and knowledge gaps persist [22]. Certification therefore should not be equated automatically with sustainability outcomes [23]. Likewise report nuanced effects of RSPO certification on productivity, profitability, and agrochemical use rather than a uniformly positive certification effect. Evidence from Ghana further shows that outcomes can differ by certification design report higher net farm revenue, food security, and lower agrochemical-related environmental impacts among certified farmers, with differences between organic and RSPO certification [24].

Recent research moves this debate further show that certification costs can be reduced substantially through economies of scale and district-level institutional arrangements [25]. Their action research with more than 3,500 farmers demonstrates that collective organization can reduce per-farmer certification costs without necessarily producing implementation gaps.

similarly find that Indonesian farmers' willingness to adopt certification responds positively to training and cash premiums, suggesting that policy design matters[26-27]. Find that even among certified independent farmers, economic and institutional dimensions remain important weaknesses. Thus, certification should be treated as an institution embedded within wider capability systems rather than as a standalone technical instrument.

Smallholder Heterogeneity, Livelihoods, And Resilience

A major weakness in policy debates is the treatment of "smallholders" as a homogeneous group. In reality, smallholders differ by land size, history of participation in state-supported schemes, age of palms, access to mills, certification status, ethnicity, household labor, nonfarm employment, location, land legality, gender relations, and financial assets.

show that Indonesian oil palm cultivation can improve household living standards while also affecting economic risk through diversification into off-farm work. However, identify multiple classes of resilience and show that historically supported farmers tend to have stronger resilience than some independently established local farmers.

Gender must also be incorporated into this heterogeneity find that oil palm adoption affects labor allocation and gender roles, while more recent work [28]. Highlights the importance of partnerships in encouraging women's participation in GAP. Inclusive sustainability therefore requires more than treating the male registered farm owner as the sole relevant actor.

Cross-country comparison also matters. Demonstrate that the Indonesian experience cannot simply be transferred to Ghana because the structural conditions of smallholder inclusion differ substantially. Show that smallholders in Sabah face land tenure, knowledge, compliance, food-security, and market-price challenges within jurisdictional sustainability initiatives. similarly identify persistent social challenges among Malaysian smallholders.

Consequently, an inclusive global coalition must recognize diversity rather than claiming that one institutional model fits all seven founding countries. This requirement is particularly important for WCOPS because its members operate under different market structures, regulatory systems, sustainability standards, and histories of state and corporate support.

Method

This article adopts a **qualitative literature review** rather than a systematic literature review. The objective is interpretive synthesis and theory building, not exhaustive enumeration of every publication or meta-analysis of comparable effect sizes. The review concentrates on peer-reviewed journal research published from 2020 through September 2026 and uses the WCOPS declaration as a contemporary institutional reference point.

Literature was identified iteratively through combinations of keywords including *oil palm smallholder*, *palm oil certification*, *RSPO*, *ISPO*, *MSPO*, *collective action*, *farmer organization*, *replanting*, *fresh fruit bunch price*, *Good Agricultural Practices*, *yield gap*, *traceability*, *zero deforestation*, *global commodity governance*, and related terms. Priority was given to peer-reviewed literature indexed or published through major scholarly outlets. Citation chaining and thematic searches were subsequently used to identify relevant papers dealing with governance, equity, market structures, agronomic practices, and rural development.

The analytical strategy combined deductive and inductive thematic coding. Deductively, literature was organized around the six priorities articulated in the WCOPS declaration: representation, inclusive sustainability, FFB pricing and fair trade, collective organization, GAP/circularity, and discriminatory trade barriers. Inductively, additional themes emerging from the literature—including heterogeneous resilience, replanting, certification costs, traceability, digital capability, gender, and regulatory equity—were integrated into the synthesis.

The approach deliberately avoids PRISMA terminology or claims of exhaustive database coverage because the research design is a qualitative narrative and theory-guided review. The analytical objective is instead to compare converging and contradictory findings, connect previously fragmented research streams, and develop an integrated conceptual explanation.

The WCOPS founding declaration and contemporaneous reporting are treated as primary contextual evidence regarding the coalition's establishment and declared priorities. They are not used as evidence that those priorities have already generated measurable effects, a distinction that is especially important because the coalition was established only in August 2026.

Results

Theme 1: Smallholder Sustainability Involves A Representation Deficit

The literature suggests that the principal smallholder problem is not simply insufficient compliance but an imbalance between responsibility and influence. Sustainability standards require behavioral and administrative change at farm level, yet the power to define the conditions of compliance is distributed across governments, standard setters, mills, downstream companies, financial institutions, civil-society organizations, and importing-market regulators.

This imbalance can produce what may be called a **representation deficit**: actors who bear significant implementation costs have comparatively limited influence over rule formation. Conceptualize a wider version of this problem in global sustainable commodity governance by emphasizing the underrecognized agency of Southern actors. Shows that accountability arrangements are contested politically, while demonstrate how national certification can itself constitute a response to contested transnational authority.

The establishment of WCOPS can thus be interpreted as an attempt to scale collective voice from farmer groups and national associations to the transnational level. Its declaration explicitly seeks central and active participation by farmers in global policy processes and challenges the idea that sustainability requirements should be developed without meaningful producer participation.

However, representation is not equivalent to presence. For WCOPS to become more than an advocacy symbol, several questions require institutional answers: Who selects delegates? How are women, independent farmers, scheme farmers, cooperatives, and marginalized regions represented? How are positions negotiated across countries with different production systems? What mechanisms allow grassroots farmers to influence coalition policy? How are conflicts of interest disclosed? These questions follow directly from broader debates on accountability in commodity governance.

Theme 2: Inclusive Sustainability Depends On Capability, Not Merely Standards

The second major finding is that sustainability performance depends heavily on the capabilities available to farmers. Certification studies repeatedly identify problems associated with land legality, administrative documentation, audit costs, technical knowledge, farmer organization, and financing. Certification rules may therefore produce unequal outcomes even when formally applied equally.

Demonstrate that independent farmers excluded from historical agricultural support face disproportionate certification difficulties. Similarly show that previously organized farmers possess structural advantages when entering certification [29]. Find comparable challenges related to tenure, finance, knowledge, and inequality in Sabah.

This evidence supports the WCOPS principle of inclusive sustainability, but it also clarifies what inclusion must involve. Inclusion cannot mean lowering environmental safeguards indiscriminately. Rather, it means recognizing that compliance capability is produced through access to extension, finance, legal assistance, farmer organizations, infrastructure, technology, and market incentives.

Provide evidence that certification costs can fall when farmers are aggregated into larger institutional structures. Show that training and financial incentives affect willingness to participate. Further demonstrate that social relations, trust, communication, and group membership matter. Sustainability is therefore not only a matter of technical standards; it is also a problem of institutional capability.

As illustrated in Figure 1, the key conceptual shift is from treating smallholders primarily as compliance units toward understanding them as economic actors whose capacity to comply depends on institutional conditions. Certification requirements remain important, but the probability of durable adoption increases when legal, financial, technical, and organizational constraints are addressed simultaneously.

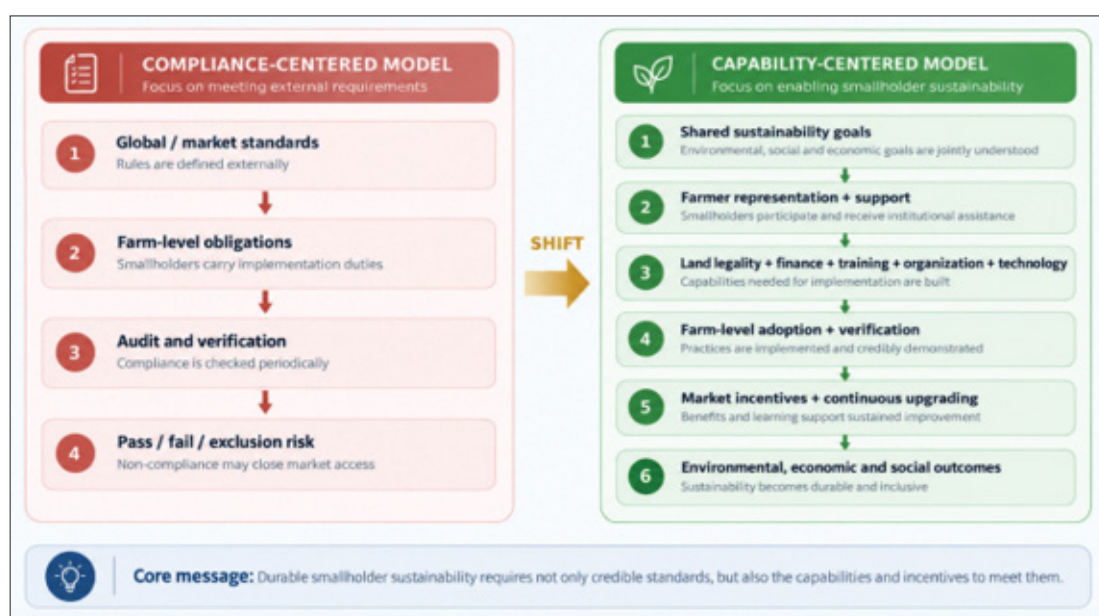


Figure 1: From Compliance-Centered Sustainability To Capability-Centered Sustainability

This interpretation helps reconcile apparently contradictory findings on certification. Certification can generate benefits, but those benefits are strongly conditioned by initial farmer characteristics and external facilitation [30]. Collectively suggest that certification is better understood as part of an institutional upgrading process than as an isolated label.

Theme 3: Fair Pricing is a Sustainability Issue

A third major finding is that farm-gate economics cannot be separated from sustainability. Smallholders who receive low or volatile FFB prices may postpone fertilizer purchases, extend harvest intervals, delay replanting, reduce hired labor, or avoid the costs associated with certification and traceability. Economic viability therefore conditions environmental and agronomic behavior.

Recent evidence reinforces this link. Finds substantial vulnerability among Indonesian smallholders during the 2022 palm oil export ban and shows that household resilience differed with access to off-farm income [31]. Investigate price transmission along the FFB supply chain in West Sumatra and highlight the importance of understanding how CPO price movements reach the farm level.

Market structure matters because FFB is perishable. Farmers frequently operate within localized networks of collectors and mills and may not have strong bargaining leverage. Contract design also matters. In Ghana, show that resource-providing contracts that combine marketing with inputs and technical support generated stronger productivity effects than simple marketing contracts. This indicates that market access alone may not overcome capital and knowledge constraints.

The WCOPS demand for transparent and fair FFB pricing should therefore be interpreted less as a call for administratively fixing one global price and more as a demand for institutions that improve price discovery, transparency, competition, bargaining, and transmission. National contexts differ, making a single global mechanism unrealistic. However, farmer organizations could improve access to mill-price information, benchmark farm-gate margins, document deductions, compare transport costs, and provide evidence during regulatory discussions.

Theme 4: Collective action can reduce transaction costs, but organization quality matters

Farmer organization is one of the strongest themes connecting certification, marketing, extension, finance, and replanting. Certification programs frequently encourage or require collective organization because working with individual smallholders creates high transaction costs. Farmer groups can aggregate training, documentation, auditing, input purchases, market information, and negotiation.

Yet organization is not automatically effective, drawing on four decades of evidence from the Ophir plantation in Indonesia, show that collective action can facilitate sustainable intensification and replanting, but its resilience depends on biophysical conditions, financial management, farmer heterogeneity, and institutional context. Farmer organizations are therefore enabling infrastructures rather than universal solutions.

Examine cooperative or corporate-farming approaches for independent smallholders, while develop an institutional role model for sustainability among independent farmers. provide direct evidence that larger farmer aggregation can reduce certification costs. These findings suggest that the economic value of organization arises partly from economies of scale and reduced transaction costs.

WCOPS represents a second-order form of collective action: organizations are organizing across national boundaries. This creates new possibilities for knowledge exchange, benchmarking, representation, and diplomacy, but it also creates coordination problems. The interests of Indonesian independent smallholders, Malaysian organized farmers, Ghanaian producers, Nigerian farmers, Thai cooperatives, Ivorian organizations, and Honduran growers will not always be identical.

Figure 2 locates WCOPS within a nested institutional architecture. Its potential comparative advantage is not to replace local cooperatives or national associations, but to connect these levels. Local organizations possess detailed knowledge of farmers and local production systems, whereas transnational organizations can aggregate shared concerns, compare evidence across countries, and communicate coordinated positions in global governance forums.



Figure 2: Multi-Level Architecture Of Smallholder Collective Agency

This model also identifies a major institutional risk: representation can become disconnected as organizations scale upward. Strong downward accountability is therefore essential. WCOPS would require transparent membership criteria, documented mandates, participatory decision-making, country representation, mechanisms for dissent, and regular disclosure of how its international positions were constructed.

Theme 5: Agronomic Upgrading Offers Major Opportunities, But Economics Determines Adoption

Low smallholder yields are frequently attributed to poor farming practices, but recent agronomic research shows that the underlying causes are multifaceted. Monzon et al. (2023) analyzed almost one thousand smallholder fields and found that actual yields averaged only a fraction of attainable yields, with nutrient management, harvest interval, weed management, and pruning explaining important portions of the gap. Improved agronomy could therefore increase production without proportional expansion of cultivated area.

However, management decisions are economically constrained. show that the most input-intensive systems do not necessarily maximize smallholder economic performance. demonstrate that harvest intervals reflect labor availability, yield levels, accessibility, transport costs, and FFB prices rather than agronomic knowledge alone.

Soil and nutrient management reveal the same interaction. identify associations between fertilization, understory management, soil health, and palm performance. However, show that nature-based management practices do not automatically translate into measurable yield increases, underscoring the need to evaluate management options empirically rather than assume that every promoted practice creates simultaneous environmental and production gains.

The newest evidence on fertilizer use makes the economic constraint explicit. found widespread low fertilizer use among Indonesian smallholders and identified high prices, limited availability, logistics, and credit constraints as major causes. Farmers with credit access through collectors or farmer groups were more likely to apply fertilizer.

Evidence from Malaysia likewise links GAP implementation to productivity and well-being among certified independent smallholders. Field evidence from Borneo indicates that sustainability-oriented management practices need not reduce smallholder oil palm yields, while broader multidimensional assessments show that sustainability performance spans economic, institutional, environmental, social, and technological dimensions.

The WCOPS commitment to GAP therefore has strong support in the literature, but a critical qualification is necessary: GAP adoption requires economically viable farms and supporting institutions. Training without finance, or finance without reliable input supply, may have limited impact.

Theme 6: Replanting is Both An Agronomic And Livelihood Transition

The ageing of smallholder oil palm plantations creates a difficult intertemporal problem. Replanting can restore future productivity, but it requires capital expenditure and produces a period of reduced or absent harvest income. Smallholders with limited savings or alternative income sources may therefore rationally delay replanting even when older palms have declining productivity.

Show that farmers' preferences regarding replanting subsidies depend on program attributes, implying that program design affects participation [32]. Show that farmer organizations can support collective replanting but must themselves remain financially and institutionally resilient. A narrative review further identifies access to finance, high-quality inputs, and technical knowledge as persistent constraints throughout the replanting process [33].

Recent empirical evidence reinforces these constraints. Find that finance, land certification, business-registration requirements, and the capacity to implement GAP influence both stated willingness and actual participation in Indonesia's replanting program [34]. Likewise conclude that an increased replanting subsidy improves long-term economics but may remain insufficient for farmers who must manage several years of lost or reduced income; they identify the recovery period and eligibility barriers as major constraints and suggest that gradual replanting can sometimes reduce short-term livelihood shocks.

This supports a broader interpretation of replanting policy. The relevant financial instrument is not simply a grant for planting materials. A comprehensive package may require certified seedlings, technical support, bridging finance, income diversification, intercropping where appropriate, credit restructuring, crop insurance, cooperative coordination, and legal assistance.

Theme 7: Traceability and Deforestation-Free Markets Create New Capabilities And New Inequalities

The increasing emphasis on deforestation-free commodity supply chains is transforming the informational requirements of agricultural markets. Farmers may increasingly need to demonstrate plot location, legal production status, farm boundaries, buyer relationships, and traceability from farm to mill. These requirements can create incentives for improved supply-chain transparency, but they can also create new barriers.

Show that participation in certified mill markets is uneven. Independent smallholders contributed substantially to production in their study region but only a limited share of supply to certified mills. Importantly, the study finds that this pattern was not simply the result of active exclusion after certification; it reflected deeper structural differences in where certified mills sourced and in the market relationships available to farmers [35].

Extend this analysis to zero-deforestation commitments. Their study of more than 1,500 farm households found weak dissemination of zero-deforestation policies, limited bottom-up traceability, minimal specialized capacity building, and little price differentiation, particularly among independent farmers.

These findings matter because compliance systems can unintentionally favor already organized farmers. A producer who is contractually tied to a mill, mapped, documented, trained, and organized begins from a fundamentally different position from an independent farmer selling through multiple intermediaries.

Provide a useful framework by distinguishing procedural, distributive, and recognitional equity in unilateral value-chain policies [36]. Procedural equity concerns participation in policy design; distributive equity concerns who pays and who benefits; recognitional equity concerns whether different producer circumstances are adequately understood.

Illustrate how deforestation-related regulation can reshape international production and trade patterns, while broader

economic research emphasizes the importance of evaluating leakage, competitiveness, administrative burden, and distributional consequences. These effects make equity assessment integral to regulatory effectiveness because environmental gains may be undermined if compliance requirements systematically divert smaller producers toward less regulated markets [37].

Consequently, opposition to “discriminatory trade barriers” should not be framed as opposition to environmental objectives. A more analytically defensible position is that environmental regulation should pursue verifiable deforestation reduction while ensuring proportional compliance mechanisms, farmer assistance, accessible traceability infrastructure, and meaningful producer participation.

Discussion and Analysis

From Policy Takers To Potential Co-Governors

The six WCOPS priorities correspond closely to major problems identified independently across the academic literature. Representation deficits are documented in sustainability governance research; certification barriers are documented in Indonesia, Malaysia, and Thailand; price and contract asymmetries are documented in Indonesia and Ghana; organizational capacity affects certification and replanting; agronomic gaps are substantial but economically constrained; and new traceability regimes create uneven participation.

The convergence does not prove that WCOPS will solve these problems. It does, however, indicate that the coalition’s founding agenda is not merely rhetorical. Each priority maps onto a substantial research literature.

The most important potential shift is from understanding smallholders as policy takers toward treating them as potential co-governors. Co-governance does not imply that farmers should determine sustainability rules unilaterally. Environmental groups, governments, communities, workers, scientists, buyers, and consumers have legitimate interests. Rather, co-governance implies that farmers who bear implementation responsibilities should possess meaningful opportunities to participate in designing workable rules and allocating transition costs.

This distinction also addresses the weaknesses of a purely adversarial producer-versus-consumer framing. Sustainable commodity governance is not strengthened when one side simply attempts to defeat the other. It is strengthened when environmental objectives become credible, measurable, economically implementable, and procedurally legitimate.

The Voice Capability Market Power Sustainable Upgrading Resilience Framework

The literature synthesis supports a five-stage conceptual framework, summarized in Figure 3. The framework is intentionally sequential for analytical clarity, while recognizing that feedback among the stages can reinforce or weaken smallholder sustainability over time.

Figure 3 integrates the central findings of the review. It proposes that sustainability outcomes cannot be understood by beginning only at the fourth stage sustainable upgrading. Farmers’ ability to upgrade is shaped by voice, institutional capability, and market power. Policies that ignore these preceding conditions risk confusing inability with unwillingness.

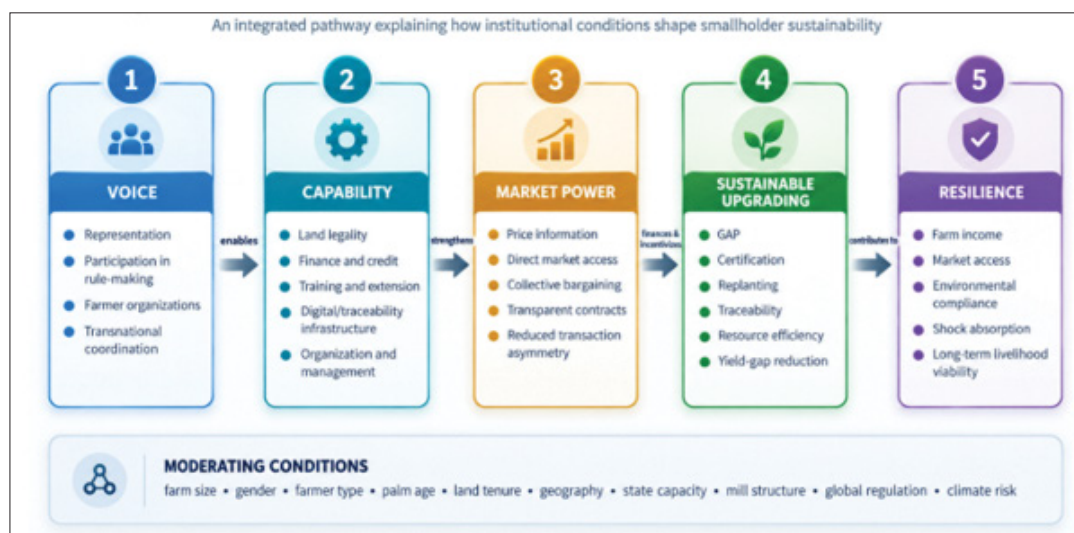


Figure 3: Integrated Voice–Capability–Market Power–Sustainable Upgrading–Resilience Framework

For example, low fertilizer use may reflect high prices and lack of credit rather than lack of awareness. Long harvest intervals may reflect labor, transport, and yield conditions rather than poor knowledge [38]. Certification non-participation may reflect legality and organizational barriers rather than rejection. Delayed replanting may be an economically rational response to temporary income loss rather than technological backwardness. The framework therefore shifts analysis away from farmer deficits toward the systems that enable or constrain farmer decisions.

Shared Responsibility as The Basis of Inclusive Sustainability

The WCOPS declaration emphasizes “shared responsibility,” and the literature provides a strong rationale for this principle. Sustainability transitions create costs: mapping, auditing, data management, certification, replanting, training, segregation, farm improvement, monitoring, and verification. If these costs are concentrated on actors with the lowest financial capacity, exclusion becomes more likely.

Shared responsibility does not mean removing producer obligations. Farmers remain responsible for lawful and environmentally responsible production. However, mills and buyers can support traceability and provide stable market relationships; governments can simplify legality procedures and finance public extension; certification bodies can adapt documentation requirements while maintaining substantive safeguards; financial institutions can design replanting products; and importing-country regulators can support technical transition rather than relying only on market exclusion.

Demonstrate that economies of scale can lower certification costs. Ruml and Qaim (2020) show that resource-providing contracts

can overcome constraints that simple purchase agreements do not. Show that credit access affects fertilizer use. Demonstrate that replanting subsidies alone may not cover livelihood-transition needs. Collectively, these findings suggest that responsibility should be matched with capability.

Figure 4 clarifies that inclusive sustainability is a system of complementary responsibilities rather than a relaxation of environmental standards. The crucial policy question is whether responsibility is distributed according to actors' control over the problem and their capacity to finance solutions.

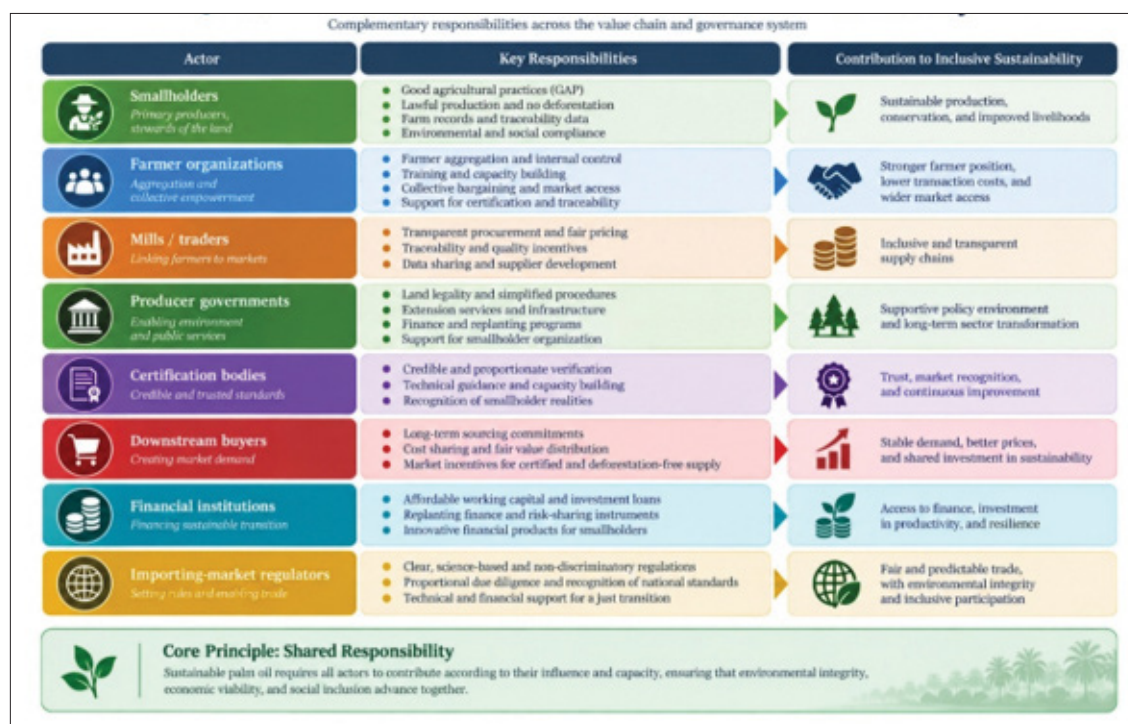


Figure 4: Shared-Responsibility Architecture for Inclusive Palm Oil Sustainability

Such a model is consistent with the evidence that smallholder sustainability depends on interactions among markets, institutions, finance, farmer organization, agronomy, and regulation. It also offers a more constructive interpretation of WCOPS' demand for inclusive sustainability than framing the coalition simply as a defensive reaction against external regulation.

Fair FFB Pricing and Sustainable Investment

WCOPS places FFB pricing near the center of its agenda, and this emphasis is economically defensible. Farm-gate margins determine whether farmers can purchase fertilizer, hire labor, maintain roads, undertake replanting, obtain certification, or invest in digital traceability.

Yet "price stabilization" requires careful interpretation. Artificially preventing all price movement would be unrealistic in an internationally traded commodity market. A more viable objective is to reduce opaque and asymmetric price transmission through transparent formulas, accessible price information, competitive procurement, quality-based incentives, efficient logistics, and collective marketing.

Price vulnerability is also heterogeneous. Reich (2026) shows that off-farm income increases resilience to shocks. This finding

is consistent with Mehraban et al. (2021), who identify income diversification as an important mechanism through which households manage risk.

WCOPS could contribute by developing a **Smallholder FFB Price Observatory**. Rather than attempting to set international prices, such an observatory could compile comparable national information on benchmark FFB prices, mill prices, transport costs, quality deductions, certification premiums, policy shocks, and farmer margins. These data would support evidence-based bargaining and policy dialogue.

Replanting, Agronomic Intensification, and The Land-Sparing Opportunity

The combination of large yield gaps and aging plantations creates both a challenge and an opportunity [39]. show that improved management can raise yields substantially on existing land [40]. Similarly emphasize opportunities to improve yield and profit through better agronomy [41]. connect GAP with productivity and farmer well-being in Malaysia.

However, intensification must avoid simplistic assumptions that more input is always better. Show that highly intensive input regimes are not necessarily economically optimal [42-43] illustrate the

importance of soil health and understory vegetation, while caution that promoted nature-based practices do not automatically produce short-run yield effects [44].

The policy implication is an approach based on **site-specific sustainable intensification**. Farmers require agronomic recommendations that optimize yield, profitability, nutrient efficiency, soil health, and environmental performance under local conditions.

Replanting is equally important. Without renewal of aging palms, yields decline and farmers can become trapped in low-income production. Yet forcing rapid replanting without income bridging may increase livelihood vulnerability. Provide strong evidence for combining replanting subsidies with financing mechanisms that address the years before new palms become commercially productive.

WCOPS could add value by facilitating cross-country exchange on replanting models, certified planting material, financing, intercropping during immature periods, and cooperative machinery. Such exchange could help member organizations distinguish context-specific practices from approaches that are sufficiently robust to be adapted across producing countries.

Traceability as Both a Public Good and a Market-Entry Capability

Traceability is increasingly becoming equivalent to market infrastructure. A farmer who is mapped, documented, linked to a legal supply chain, and able to demonstrate production origin is better positioned to access regulated and certified markets.

However, the evidence from and shows that traceability develops unevenly. Independent smallholders are less likely to be deeply integrated into certified and zero-deforestation-oriented supply chains, especially where sourcing systems have historically favored contract farmers.

Digital traceability should therefore be considered a form of productive infrastructure, similar to extension services or rural roads. Public-private programs could finance geolocation, farmer registries, interoperable databases, and secure data-sharing systems. Importantly, data governance must protect farmers from misuse and should clarify ownership and access rights.

WCOPS could play a technical role by identifying minimum interoperable data requirements across countries and advocating systems that avoid requiring every farmer to purchase expensive proprietary technology. A common minimum architecture could reduce duplication, improve farmer portability across buyers, and strengthen safeguards over data ownership and access.

Equity and the Emerging Trade-Governance Frontier

The dispute surrounding unilateral environmental regulation is likely to remain one of the most politically sensitive issues affecting palm oil. Environmental regulation responds to legitimate concerns over forest loss, but producer groups may perceive trade measures as unfair when standards are developed without adequate participation, when compliance costs are unevenly distributed, or when national sustainability systems receive insufficient recognition.

Offer a constructive way to move beyond binary arguments by distinguishing procedural, distributive, and recognitional equity in unilateral value-chain policies. Procedural equity asks whether smallholders and producer countries participate meaningfully

in policy development and whether consultation can materially influence implementation choices.

Distributive equity asks who bears the costs of mapping, documentation, auditing, segregation, and verification, while recognitional equity asks whether regulation acknowledges heterogeneous producer circumstances rather than assuming that industrial plantations and two-hectare farms possess equivalent administrative capabilities. Taken together, these dimensions shift the debate from whether environmental regulation is desirable to how it can be designed and implemented fairly. The WCOPS concern regarding discriminatory trade barriers is therefore analytically strongest when framed through these equity dimensions rather than through blanket opposition to environmental regulation.

Proposed Institutional Design For WCOPS

If WCOPS seeks to develop from a declaratory coalition into a credible governance actor, the literature suggests at least eight institutional priorities. These priorities should be treated as a staged institutional agenda in which representative governance, evidence capability, implementation services, and accountability mechanisms reinforce one another.

First, it needs **representative governance**. National delegations should not rely exclusively on organization leaders. Mechanisms are needed to incorporate independent farmers, cooperative members, women, youth, and geographically marginalized regions.

Second, WCOPS requires an **evidence and policy secretariat** capable of translating farmer experiences into credible technical submissions. Advocacy that is not supported by reliable data is unlikely to influence highly technical discussions on traceability, deforestation, carbon accounting, certification, or trade.

Third, WCOPS could establish an FFB Market and Price Observatory to improve information transparency and support evidence-based bargaining. Fourth, it could create a Smallholder Sustainability and Traceability Platform for sharing mapping systems, internal-control procedures, certification experience, interoperable data practices, and digital tools.

Fifth, WCOPS could develop a Replanting and Finance Working Group linking farmer organizations with public funds, banks, development institutions, and buyers. Sixth, it could institutionalize cross-country GAP learning so that member organizations can compare agronomic recommendations, extension approaches, replanting practices, and locally appropriate risk-management strategies.

Seventh, WCOPS needs financial transparency and conflict-of-interest rules to maintain legitimacy and protect its representative mandate. Eighth, it should develop a monitoring framework that converts its six founding statements into measurable indicators; relevant measures could include farmer participation in global policy forums, hectares mapped, numbers of farmers certified, replanting finance accessed, changes in price transparency, and farmer participation in traceable markets.

Research Implications

The formation of WCOPS creates an unusual opportunity for longitudinal research. The coalition's launch provides a relatively clear institutional starting point from which researchers can examine whether transnational farmer organization alters access to information, policy influence, collective bargaining, sustainability investment, or market inclusion.

Future research should avoid evaluating WCOPS only by counting international meetings. More meaningful outcomes would include changes in representation quality, traceability access, certification cost, market participation, replanting investment, price transparency, and farmer perceptions of institutional responsiveness.

Comparative research across the seven founding countries would be particularly valuable because institutional conditions differ markedly. Ruml et al. (2022) show that lessons from Indonesia cannot be transferred mechanically to Ghana, while Npueng et al. (2023) demonstrate distinct certification dynamics in Thailand. Hou et al. (2024) illustrate the specific challenges of Sabah. These differences make WCOPS an interesting natural setting for studying whether common transnational principles can coexist with locally differentiated implementation [45-54].

Conclusion

This qualitative literature review examined the emergence of transnational oil palm smallholder collective action against the backdrop of increasingly complex global sustainability governance. The evidence reviewed from 2020–2026 shows that smallholder sustainability cannot be reduced to whether individual farmers comply with certification criteria. It is shaped by representation, land legality, institutional organization, market relationships, credit, extension, agronomic capability, FFB prices, replanting finance, traceability infrastructure, and the design of international environmental regulation.

The central synthesis is that five elements are sequentially and mutually connected: **Voice, Capability, Market Power, Sustainable Upgrading, and Resilience**. Weak voice can produce poorly adapted rules; weak capability reduces farmers' ability to respond to those rules; weak market power constrains investment; insufficient investment limits sustainable upgrading; and inadequate upgrading weakens long-term livelihood and market resilience.

This perspective helps reinterpret the six priorities declared at the launch of WCOPS. Stronger representation responds to a documented governance deficit. Inclusive sustainability responds to unequal compliance capability. Fair FFB pricing addresses the economic foundations of farm investment. Collective organization can reduce transaction costs and improve bargaining, although organization quality remains crucial. GAP and circularity can enhance productivity and resource efficiency when supported by finance and appropriate extension. Finally, concerns over trade barriers can be reframed through procedural, distributive, and recognitional equity rather than through opposition to environmental objectives.

The significance of WCOPS therefore lies not in achievements that can already be demonstrated, but in the possibility of institutionalizing smallholder agency at a scale that historically has been dominated by governments, corporations, certification organizations, and international regulators. Its credibility will depend on whether it becomes representative, accountable, technically capable, financially transparent, and implementation-oriented.

The broader policy implication is straightforward: sustainable palm oil cannot be built solely by asking farmers to comply with increasingly sophisticated rules. Durable sustainability requires an institutional architecture in which farmers participate in rule formation, obtain the capabilities needed to implement those rules, receive sufficient economic returns to invest in sustainable production, and share transition costs with actors across the value

chain. If these conditions are met, transnational collective action could become an important component of a more inclusive form of global commodity governance. If they are not, international representation risks remaining symbolic while structural inequalities at farm level persist.

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