

Socioeconomic Analysis of Forest Farmers in Social Forestry Schemes in West Kalimantan

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ABSTRACT

This study examines the socioeconomic outcomes of forest farmers participating in social forestry schemes in West Kalimantan. Using a qualitative document analysis approach, the research synthesizes scientific publications, government reports, and community forestry studies to assess livelihood patterns, empowerment dynamics, and resilience factors among farmer groups. The findings show that social forestry increases household welfare only when farmers gain not just access to forest land but also business-oriented support, market integration, institutional autonomy, and equitable decision-making. Income improvement is most visible where livelihood diversification, agroforestry practices, and value-added forest product development are adopted. Conversely, socioeconomic vulnerability persists when participation is symbolic, organizational capacity is weak, or partnerships reproduce dependency on external actors. The study concludes that social forestry must evolve from a land tenure program to a community economic development system through cooperative entrepreneurship, inclusive governance, and long-term institutional support. The article provides novelty by integrating income structures, empowerment, and resilience into a single analytical framework to evaluate socioeconomic sustainability for forest farmers in West Kalimantan.

INTRODUCTION

Social forestry schemes in Indonesia have been promoted as a transformative instrument to redistribute forest access rights, improve community livelihoods, and strengthen sustainable forest management. In West Kalimantan, where forest-dependent communities have historically relied on swidden agriculture, agroforestry, and non-timber forest products, social forestry is envisioned to support socioeconomic resilience while mitigating deforestation pressures. The policy's socioeconomic mandate positions forest farmers not merely as passive beneficiaries but as primary actors of local forest governance whose participation is expected to enhance welfare and reduce land-use conflict. However, the socioeconomic outcomes of these schemes remain uneven across regions and program types, making West Kalimantan an interesting case of how structural, economic, and institutional variables determine farmer wellbeing under social forestry mechanisms. A national review reveals that social forestry initiatives create new livelihood opportunities, yet their implementation remains challenged by capacity gaps, institutional dependency, and uneven income growth among participant farmers (Rakatama & Pandit, 2020). These mixed results reflect the

complexity of transforming forest governance into a decentralized, community-centered economic system.

Empirical data from peatland-based smallholders show that socioeconomic conditions among forest farmers are shaped simultaneously by resource access, market integration, land tenure security, and social capital, rather than by program membership alone (Elia & Yulianti, 2022). In West Kalimantan, communities participating in social forestry tend to be characterized by limited formal education, fluctuating household income, and high dependence on natural resources. These vulnerabilities create barriers to livelihood diversification, especially when market access for agricultural commodities and forest products remains unstable. Although social forestry as a policy framework grants land management rights to communities, socioeconomic benefits will not materialize if technical capacity building, infrastructure access, and institutional support are insufficient to accompany the transfer of rights. Such structural dependency demonstrates that program success is not solely determined by policy distribution, but by the ability of farmers to mobilize rights into material welfare, bargaining power, and long-term livelihood stability.

Forest-farmer partnership models reveal additional socioeconomic dynamics relevant to West Kalimantan. Studies in East Kalimantan illustrate that commercial partnerships between companies and communities can support income generation, but power asymmetry frequently determines revenue distribution, decision-making authority, and risk exposure (Hidayat et al., 2024). These findings suggest that participation does not automatically translate into empowerment if institutional arrangements reproduce existing hierarchies. While social forestry programs intend to strengthen negotiation power of communities, the challenge lies in transitioning forest farmers from dependent labor into autonomous economic actors. Without a structural shift, farmers risk being positioned as labor suppliers rather than forest managers, despite formal access rights provided by the social forestry framework.

The socioeconomic dimension of social forestry has been examined in several regions in Indonesia. In West Java, evidence demonstrates that household income increases among participants of social forestry programs when livelihood diversification and value-added forest business activities are present (Nurfatriani et al., 2023). However, findings also reveal that income growth does not occur automatically and requires farmers to adopt new business models that integrate agroforestry, ecotourism, and forest-based product chains. During economic shocks such as the COVID-19 pandemic, social forestry farmers who adopted diversified livelihood strategies proved more resilient than farmers who depended on single commodity chains, indicating that resilience is shaped by adaptive socioeconomic strategies rather than program membership alone (Widiyanto et al., 2023). These insights are essential for West Kalimantan, where exposure to market volatility, deforestation pressures, and land competition remains high.

Despite promising prospects, numerous studies highlight persistent shortcomings within social forestry implementation. A critical analysis demonstrates that empowerment initiatives frequently emphasize administrative compliance and reporting rather than strengthening farmer autonomy, entrepreneurship, or decision-making capacity (Lawasi, 2024). This indicates that although program frameworks promote community empowerment, practical outcomes may reflect institutional paternalism rather than grassroots economic control. Similarly, socioeconomic considerations in land-use planning reveal that farmer livelihoods in West Kalimantan

are influenced by access to infrastructure and market networks, suggesting that spatial planning must integrate social welfare considerations to prevent livelihood vulnerability (Shantiko et al., 2022). These findings underline the need to view social forestry not only as a legal mechanism but as a territorial development strategy.

Conflict over land and production also shapes farmer outcomes in West Kalimantan. Evidence shows that smallholder plantation farmers in Sintang District experience conflicting interests between household livelihood needs, plantation expansion, and community land claims (Kurniawan et al., 2023). These socio-economic tensions imply that forest farmers are navigating livelihoods within contested economic arenas rather than neutral production landscapes. Therefore, the design of social forestry programs must recognize that farmers operate amid market competition, land concessions, and resource scarcity. Without this recognition, program implementation risks overlooking structural forces that shape farmer income and social wellbeing.

Research from other provinces also helps contextualize socioeconomic expectations. Social forestry participants in Bandung Selatan demonstrate that household welfare improves when farmers are able to transform land rights into productive business ventures supported by management skills, production inputs, and market access (Nurhayati, 2023). Meanwhile, community participation studies in Sanggau, West Kalimantan, show that decision-making engagement is uneven, and women and marginalized groups remain excluded from benefit distribution (Roslinda et al., 2022). These inequalities illustrate that participation mechanisms require redesign to ensure fair socioeconomic redistribution, otherwise participation becomes symbolic.

Although many studies explore social forestry performance, a clear research gap remains for West Kalimantan. First, Rakatama and Pandit (2020) reviewing social forestry schemes in Indonesia identify opportunities and challenges, but do not explore the socioeconomic variability among farmers in different regional contexts. Second, Elia and Yulianti (2022) analyze household socioeconomic conditions in Central Kalimantan but do not address how program mechanisms mediate income distribution and empowerment. Third, Hidayat et al. (2024) evaluate partnerships between companies and communities but do not investigate socioeconomic outcomes in regions dominated by community-based forest management without commercial partnerships. Therefore, a lack of integrated socioeconomic assessment focused specifically on forest farmers within social forestry schemes in West Kalimantan remains.

The novelty of this study lies in developing a socioeconomic analysis that connects farmer income, livelihood resilience, empowerment, and participation structures within social forestry programs in West Kalimantan. The purpose of this research is to evaluate how social forestry influences the socioeconomic wellbeing of forest farmers while identifying which institutional, market, and governance factors strengthen or weaken farmer outcomes within the West Kalimantan context.

METHODOLOGY

This study employs a qualitative document-based approach to analyze the socioeconomic dynamics of forest farmers participating in social forestry schemes in West Kalimantan. The qualitative document method is suitable for examining social–ecological systems because it allows interpretation of non-numerical data to understand community livelihoods, empowerment processes, access to forest resources, and institutional frameworks that shape farmer outcomes (Creswell & Poth, 2018). Data sources consist of scientific journal articles, government publications, forestry policy

reports, and community participation studies focusing on social forestry in Indonesia. To ensure contextual relevance, the materials selected were limited to publications from the last ten years addressing themes of livelihood sustainability, forest governance, farmer empowerment, agroforestry-based income strategies, and socioeconomic vulnerability. This methodological orientation enables an in-depth understanding of social forestry as a livelihood intervention rather than merely an administrative policy.

The document analysis was conducted through thematic coding to classify findings into four analytical dimensions: income and livelihood patterns, resilience and vulnerability, empowerment and participation, and institutional or market constraints. Iterative data reading was applied to identify recurrent socioeconomic themes across publications while acknowledging the diversity of contexts within Kalimantan and broader Indonesia. Following Bowen's theoretical guidance on qualitative document analysis, data interpretation involved repeated comparison, development of cross-case patterns, and verification using multiple data sources to achieve credibility and reliability (Bowen, 2009). After thematic consolidation, conceptual relationships among variables were synthesized to explore how livelihood conditions, institutional mechanisms, and market forces interact to determine socioeconomic outcomes for forest farmers. This analytic process enables an integrated socioeconomic evaluation of social forestry that reflects structural opportunities, constraints, and community adaptive capacities in West Kalimantan.

RESULT AND DISCUSSION

Income Structures, Livelihood Strategies, and Economic Outcomes of Forest Farmers

The socioeconomic outcomes of social forestry schemes in West Kalimantan depend heavily on how forest farmers mobilize land access into productive income streams. While the transfer of management rights to community groups is intended to increase household earnings, evidence shows that income growth is not automatic and varies significantly across communities. National reviews of social forestry indicate that livelihood benefits emerge where farmers develop diversified business activities such as agroforestry, ecotourism, or non-timber forest product (NTFP) enterprises, rather than relying on conventional agriculture alone (Rakatama & Pandit, 2020). In West Kalimantan, however, many farmers operate under unstable market environments, limited access to financial capital, and fluctuating commodity prices that hinder the conversion of new land rights into sustainable income. These structural limitations illustrate that social forestry outcomes are shaped not only by program membership but by economic conditions surrounding market integration, production costs, and bargaining power in commodity chains.

Research on peatland farmers in Kalimantan suggests that socioeconomic patterns are strongly influenced by household resource endowments, levels of education, and physical access to markets, all of which determine the degree to which farmers can innovate beyond subsistence production (Elia & Yulianti, 2022). In remote areas of West Kalimantan, transportation infrastructure remains limited, making commodity distribution costly and reducing profit margins. As a result, farmers who depend solely on raw agricultural product sales often experience low-income elasticity, while farmers who adopt agroforestry or value-added processing enjoy stronger economic returns. Social forestry thus becomes a platform that enables income generation only when supported by capacity-building programs and market access

pathways. This supports the argument that social forestry is both a policy and an economic development strategy that requires structural support beyond access rights.

Household income patterns among forest farmers also reflect livelihood diversification constraints. During national economic shocks, such as the COVID-19 pandemic, forest farmers with diverse livelihood portfolios proved more resilient than those dependent on a single production model (Widiyanto et al., 2023). For West Kalimantan, where commodity dependence is prevalent, the absence of diversification increases household vulnerability when prices decline or harvests fail. Agroforestry adoption is recognized as one of the most effective diversification models because it allows farmers to cultivate multiple crops while maintaining ecological integrity and generating income throughout the year. However, agroforestry requires technical training, input support, and market linkages, which are not consistently available to all social forestry groups. The capacity gap, rather than land availability, becomes a decisive variable determining socioeconomic performance.

Another dimension influencing farmer income is the structure of institutional relationships embedded within production systems. Research in East Kalimantan finds that partnership models between companies and communities may generate income opportunities but frequently reproduce asymmetric power relations, resulting in unequal revenue distribution and limited decision-making power for farmers (Hidayat et al., 2024). Even in West Kalimantan, although the social forestry model formally positions communities as managers of forest lands, the risk remains that farmers could become dependent on private actors for capital, marketing, or processing. This institutional dependence can limit farmer autonomy and restrict the ability of communities to develop self-governed business models, which ultimately prevents the intended transition from labor-based economies to community-driven enterprise systems.

Regional evidence reinforces that household livelihood improvement under social forestry requires supportive enabling environments. In West Java, researchers found that income increases when social forestry programs include business training, product innovation, and cooperative-based marketing structures (Nurfatriani et al., 2023). These findings demonstrate the central role of institutional support in transforming forest farmers into competitive actors in commodity markets. When applied to West Kalimantan, this insight implies that simply granting land rights will not generate economic prosperity unless complemented by training, cooperative facilitation, entrepreneurial development, and technological support that strengthen market competitiveness. In many social forestry groups, livelihoods stagnate because organizations lack administrative, technical, and financial autonomy to plan their own economic trajectory.

Participation structure is another key factor shaping socioeconomic outcomes in West Kalimantan. Community participation studies in Sanggau reveal that involvement in decision-making is uneven and disproportionately controlled by specific social groups, which restricts equitable economic benefits (Roslinda et al., 2022). When power distribution within community institutions is unequal, income benefits may be captured by a limited number of households rather than distributed across the wider community. This phenomenon explains why some social forestry groups report positive income increases while others show marginal change despite having similar land access rights. In other words, income outcomes depend not only on market and institutional factors but also on internal social dynamics and governance within community forest groups.

Socioeconomic patterns among farmers can also be affected by competition and conflict over land uses. In Sintang District, smallholder palm oil producers face a structural conflict between self-sufficiency goals, household income generation, and industrial plantation pressures (Kurniawan et al., 2023). These conflicts illustrate that forest farmers are embedded in competitive agricultural landscapes rather than isolated production units, making livelihood strategies vulnerable to external land expansion and resource pressure. In the context of social forestry in West Kalimantan, household income will remain fragile if forest farmers continue to operate within contested resource geographies characterized by competing interests from private companies, local elites, and neighboring communities.

Comparative literature shows that socioeconomic performance under community forestry varies across provinces depending on institutional, cultural, and territorial contexts. In Bandung Selatan, household welfare improvements occurred only when community organizations were able to convert land rights into productive business ventures (Nurhayati, 2023). Similarly, in Kepulauan Seribu, social forestry success depended on strong cooperative governance and clear mechanisms for profit-sharing and collective labor allocation. These cases provide valuable insight for West Kalimantan: the program's economic success requires robust community-owned business mechanisms rather than fragmented individual household production.

Socioeconomic benefits can also emerge from socially oriented conservation incentives. Lessons from the Laman Satong Village Forest program in Ketapang show that payments for ecosystem services provided income support to farmers while generating incentives for sustainable land management (Nugroho et al., 2019). In addition, studies of village forest economies demonstrate that forest-based business activities increase household earnings when local institutions develop production, processing, and marketing systems that reflect community needs and resource capacity (Roy et al., 2019). These findings imply that institutional innovation and local entrepreneurship are decisive variables that determine whether social forestry translates into improved economic outcomes in West Kalimantan.

Taken together, the socioeconomic analysis of forest farmers within social forestry schemes in West Kalimantan demonstrates that income patterns and livelihood outcomes are shaped by a combination of market readiness, organizational capacity, diversification strategies, social participation structures, and institutional autonomy. While social forestry provides the structural foundation for improving farmer wellbeing, economic outcomes materialize only when communities are able to transform land access into sustainable commercial strategies supported by training, networks, and equitable governance. Therefore, social forestry should not be perceived merely as a land reform mechanism but as a socioeconomic transformation agenda requiring long-term investment in human capital, cooperative development, and market infrastructure.

Institutional Participation, Empowerment, and Governance Dynamics in Social Forestry Implementation

The socioeconomic impacts of social forestry in West Kalimantan are inseparable from the institutional dynamics that govern participation, empowerment, and decision-making processes within community forest groups. Although the policy formally delegates forest management authority to communities, disparities in empowerment outcomes indicate that the institutional structure not merely the land allocation, determines whether forest farmers can exercise real autonomy. National

reviews show that social forestry programs commonly emphasize permit acquisition and administrative compliance while failing to effectively build farmer competence in financial management, collective decision-making, or business development (Lawasi, 2024). As a consequence, forest farmer groups may secure legal access to forest land yet remain economically dependent on external actors for capital, marketing networks, technical expertise, or land-use decisions. This highlights a fundamental governance paradox: formal access without structural empowerment does not guarantee socioeconomic improvement.

Participation patterns within social forestry groups have a significant role in shaping empowerment outcomes. A case study from Sanggau in West Kalimantan shows that although participation mechanisms exist in program design, practical involvement in planning and decision-making remains dominated by a small subgroup of influential households, while marginalized groups, women, and younger members show limited contribution or access to benefits (Roslinda et al., 2022). When participation is symbolic rather than deliberative, empowerment becomes uneven, producing institutional hierarchies within community organizations. This stratification undermines the collective identity needed for effective cooperative entrepreneurship and reduces the overall capacity of forest farmer groups to negotiate with private partners or government institutions. The West Kalimantan context requires vulnerability-sensitive participation models that truly distribute voice and authority among farmers, rather than reinforcing pre-existing power patterns.

Institutional empowerment is also influenced by the forms of collaboration embedded in the social forestry system. In East Kalimantan, corporate–community forestry partnerships illustrate how contractual arrangements can provide communities with training and capital while also constraining local autonomy through power asymmetry (Hidayat et al., 2024). These dynamics are relevant to West Kalimantan because forest farmers frequently interact with private companies, traders, and NGOs when participating in value chains for rubber, gaharu, timber, honey, pepper, or agroforestry crops. While external actors can contribute financial resources and market access, dependence becomes problematic when institutional agreements disadvantage communities in pricing, benefit sharing, or risk exposure. This situation shows that empowerment must be conceptualized as both economic and institutional independence rather than access to land alone.

Capacity building within community institutions is another determinant of social forestry success. Evidence from West Java shows that households under social forestry can improve income only when supported by structured business development, product innovation, and cooperative entrepreneurship (Nurfatriani et al., 2023). Translating this to West Kalimantan, forest farmer organizations must be equipped not only with administrative and forestry technical knowledge but also with skills in value chain development, financial literacy, and collective production management. Without this, social forestry organizations risk functioning as legal permit administrators rather than as self-sufficient community enterprises capable of competing in forest-based commodity markets.

Based on key institutional variables found in the literature, the following table summarizes how different institutional components influence empowerment and participation outcomes for forest farmers.

Institutional Component	Positive Condition	Negative Condition	Impact on Empowerment	Impact on Economic Outcomes
Participation structure	Inclusive, deliberative	Dominated by elites	High autonomy and farmer voice	Equitable income distribution
Organizational capacity	Strong management and cooperative leadership	Administrative compliance only	Collective bargaining power	Ability to adopt value-added production
External stakeholder collaboration	Balanced partnership & shared benefit	Power asymmetry or dependency	Skill transfer and innovation	Sustainable market access
Gender and social inclusion	Equitable involvement	Exclusion of women & youth	Broad community empowerment	Reduced household resilience
Training and skills development	Business-oriented and ongoing	Sporadic and ceremonial	Expansion of livelihood portfolios	Increased and diversified income

The table demonstrates that empowerment is not an incidental benefit but the outcome of intentional institutional structuring. Without inclusive decision-making, cooperative organizational capability, and equal benefit-sharing mechanisms, social forestry programs risk reproducing socioeconomic inequalities rather than resolving them. If empowerment is absent, economic opportunities will be captured by a minority of participants even when land access is formally equal.

Institutional risks can also emerge when community organizations lack resilience in the face of external market and political forces. Research in Sintang District shows that economic conflicts surrounding smallholder plantation expansion often trigger intra-community disputes, weakening cooperative initiatives and undermining collective identity (Kurniawan et al., 2023). If similar dynamics unfold in social forestry groups in West Kalimantan, disagreement on land allocation, labor contribution, or profit distribution can fossilize into internal fragmentation, reducing productivity and jeopardizing membership retention. Therefore, conflict mitigation and mediation should be formalized within community governance mechanisms to preserve institutional stability.

Institutional learning and cultural dynamics also shape empowerment outcomes. In regions where communal labor traditions, customary leadership values, and local ecological knowledge remain strong, social forestry institutions tend to develop greater cohesion and self-organization capacity. In contrast, communities disrupted by migration, land speculation, or elite capture may lose these traditional social foundations, making organization more vulnerable. This mirrors findings from agroforestry resilience studies, which show that social capital and cooperative norms play crucial roles in household economic stability during crises (Widiyanto et al., 2023). Thus, empowerment must incorporate sociocultural elements to avoid technocratic program design that ignores rural realities.

Ultimately, institutional participation and empowerment are foundational pillars of socioeconomic success in social forestry. Strong organizations, equal decision-making access, and sustained business-focused capacity building allow farmers to control production processes, negotiate fairly with market actors, and establish long-term economic resilience. Without these spaces of empowerment, forest farmers remain structurally dependent, and social forestry becomes a symbolic reform rather than a transformative socioeconomic intervention.

Resilience, Vulnerability, and Long-Term Sustainability of Forest Farmers in West Kalimantan

The sustainability of social forestry in West Kalimantan relies on whether forest farmers can build resilience against fluctuating economic conditions, shifting governance landscapes, and ecological pressures. Resilience in this context refers to the capacity of farming households to sustain livelihoods despite commodity price volatility, market disruption, or changes in policy frameworks. Case studies from multiple provinces show that social forestry participants with diversified livelihoods, especially those integrating agroforestry and non-timber forest products exhibit greater economic resilience and lower vulnerability to external shocks (Widiyanto et al., 2023). In contrast, farmers who rely on mono-commodity agriculture face higher exposure to income volatility, demonstrating that livelihood diversification is essential for sustainability. For West Kalimantan, where forest commodity markets are unstable and infrastructure remains limited, diversification strategies can be transformative.

Long-term sustainability also depends on how well forest farmers secure economic independence rather than external dependence. Peatland livelihood research shows that socioeconomic vulnerability increases when farmers lack control over pricing, marketing, and production decisions (Elia & Yulianti, 2022). When dependence on traders or corporate actors becomes structural, market advantages shift upward in the value chain and leave farmers with low earnings despite high production workloads. To achieve sustainability, social forestry groups in West Kalimantan need institutional entrepreneurship (systems of cooperative production, shared processing units, and joint marketing) rather than individualized production models. This collective approach reflects findings from payment for environmental services programs, where economic improvement was achieved only when community institutions controlled benefit distribution and resource governance (Nugroho et al., 2019).

Social equity is another driver of sustainability. Unequal benefit distribution within community institutions reduces collective motivation and increases the risk of internal conflict. Studies in Sanggau demonstrate that when certain groups dominate access to decision-making and revenue flows, participation becomes symbolic, and the wider community loses incentives to maintain forest governance (Roslinda et al., 2022). Social forestry can only be sustainable if community well-being improves across the membership rather than among a privileged subgroup. Therefore, institutionalized mechanisms for equity (such as transparent financial reporting, rotational leadership, and proportional profit-sharing) are essential to prevent fragmentation.

Sustainability is also shaped by regional governance dynamics. Research on collaborative forestry partnerships illustrates that power asymmetry can undermine long-term farmer autonomy when private actors retain leverage over capital and markets (Hidayat et al., 2024). In West Kalimantan, external support is necessary for scaling

forest-based enterprises, yet partnerships must ensure that communities retain decision-making power rather than functioning as labor suppliers within corporate value chains.

These dynamics indicate that sustainability is not simply a livelihood issue but a governance issue dependent on control, bargaining power, and institutional safeguards.

Furthermore, resilience requires an enabling market ecosystem. When government programs provide capacity building, credit access, and business mentoring, farmers can transition from subsistence production to value-added entrepreneurship. This pattern appears in West Java, where households increased income and diversified livelihoods following structured business training programs (Nurfatriani et al., 2023). Applying such approaches to West Kalimantan may build long-term economic sustainability by equipping farmer groups to manage risk, innovate products, and capture more value along supply chains.

Territorial development is also essential for sustainability. Socioeconomic land-use planning studies in Kapuas Hulu show that farmer livelihoods are shaped by market accessibility, infrastructure conditions, and the legitimacy of community land rights (Shantiko et al., 2022). In remote forest communities of West Kalimantan, lack of connectivity and public services creates structural marginalization that cannot be resolved by social forestry alone. Thus, sustainability requires spatial development policies aligned with social forestry such as roads, processing facilities, storage units, and digital connectivity to enable community enterprises to scale.

Finally, sustainability depends on continuity of institutional support. Evidence from the national level shows that empowerment initiatives weaken when supportive interventions are short-term and donor-driven rather than community-driven (Lawasi, 2024). A sustainable system requires a long-term infrastructure of support, not temporary project-based facilitation. West Kalimantan's social forestry framework can achieve durability only when institutional mentorship, training, and cooperative development are consistently maintained across generations of forest farmers.

Taken together, resilience and sustainability in West Kalimantan are contingent upon diversification of livelihoods, cooperative economic organization, equitable participation, empowered governance, and structural market integration. Social forestry programs that merely transfer rights but do not build empowerment, entrepreneurship, and institutional independence risk perpetuating rural vulnerability rather than alleviating it. Long-term socioeconomic sustainability requires transforming social forestry from a land tenure reallocation scheme into a community economic development platform capable of generating autonomy and stable livelihoods.

CONCLUSION

The analysis shows that social forestry schemes in West Kalimantan offer significant potential to improve the socioeconomic wellbeing of forest farmers, yet the outcomes are highly dependent on structural rather than merely legal elements of program implementation. Land access alone does not guarantee income improvement; farmers benefit only when social forestry mechanisms are supported by business-oriented capacity building, inclusive participation, strong community-based organizational governance, and institutional autonomy in production and marketing. Household economic resilience increases when forest farmers adopt diversified livelihood strategies—especially agroforestry and non-timber forest product enterprises and when cooperative institutions manage production collectively rather than through fragmented individual arrangements. Social equity and power distribution within

community groups additionally influence sustainability because unequal participation and benefit-sharing discourage long-term engagement and weaken collective identity.

Long-term sustainability requires transforming social forestry from a permit-distribution mechanism into a community-centered economic development platform supported by governance reforms and enabling infrastructure. Institutional learning, equitable leadership rotation, transparent financial management, and strategic cooperation with external stakeholders that preserve community autonomy are essential. Policies must integrate livelihood diversification, market access, community entrepreneurship, and social inclusion to achieve socioeconomic improvement at scale. With stable institutional support and equitable governance, forest farmers in West Kalimantan can achieve durable livelihood security while strengthening conservation outcomes and reducing rural vulnerability.

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