

Life on Land Starts Locally: A Systematic Review of CBFM and Forest Governance in the Philippines

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ABSTRACT

In the Philippines, forests have long formed an integral part of rural community life and cultural identity. This systematic review synthesizes evidence on Community-Based Forest Management (CBFM) and forest governance in the Philippines between 2000-2025. Based on PRISMA guidelines and to meet methodological quality standards outlined by Purssell and McCrae (2020), a total of sixteen peer-reviewed and grey literature were reviewed to chart thematic patterns, findings, and policy implications. The results show that the majority of CBFM studies were focused on Luzon, with a few covering Visayas and Mindanao. Environmental results continued to be generally positive, supported by strong community stewardship, while livelihood and governance outcomes were mixed, reflecting institutional fragmentation, policy overlap, and variable local capacity. The synthesis revealed enabling factors that included tenure security, local participation, and incorporation of indigenous knowledge, as well as critical barriers such as bureaucratic control and inconsistent policy execution. The study suggests the need to integrate existing forest policies, strengthen local institutions, and develop indigenous methods, principles, and practices, as these are the major factors affecting CBFM operationalization. It also recommends the diversification of livelihoods, direct community investment, and increased research in underserved areas for fairer and more sustainable forest governance.

Keywords: *community, forest governance, outcomes, policy, Philippines*

INTRODUCTION

Forests are essential systems that support biodiversity, moderate climate, and provide livelihoods for tens of millions. In the Philippines, forests have, since time immemorial, been central to the life and identity of rural communities. However, decades of deforestation, land use change, and over-exploitation have drastically diminished forest cover—from more than 17 million hectares in the early 20th century to under seven million hectares in the current era (Food and Agriculture Organization,

2020). Understanding the capacity of centralized, top-down forest management to support local people in managing forests was an insight that has led the government of the Philippines to migrate towards an alternative strategy, participation, where communities are given primary responsibility for stewarding forests.

Community-Based Forest Management (CBFM) was institutionalized through Executive Order No. 263 (1995) as the national approach to sustainable forest management. Under this regime, local communities exercise tenure followed by management of public forestlands through the instrumentality of Community-Based Forest Management Agreements (CBFMAs). The program aims for environmental protection, poverty alleviation and community empowerment (DENR, 2018). As of date, about five million hectares of forest lands were already declared for CBFM, and this included more than 1800 People Organizations (POs) from all over the country (DENR-FMB, 2022).

Some literature highlights forest restoration, alternative livelihoods, and strengthening community-based organizations (Pulhin et al., 2007). Others, however, note that challenges still exist, such as weak tenure security, a lack of technical and financial support, or elite capture, as well as an unclear government policy environment (Lasco & Pulhin, 2019). These mixed results highlight the importance of a comprehensive overview of evidence to help understand under what conditions and with whom CBFM may work, and for whom it might not.

Most research on CBFM in the Philippines is compiled in journals, project reports, and government documents, which tend to concentrate more on case studies. To categorize these studies and assess the quality of available evidence, as well as commonalities and differences, a systematic review is necessary. This review seeks to determine the impact and determinants of CBFM in the Philippines using a systematic approach. It aims to develop an improved conceptualization of community-based forest management for policy reformation and future research that promotes the enhancement of locally managed forests.

The study seeks to synthesize and review empirical literature on Community-Based Forest Management (CBFM) in the Philippines from 2000 to 2025. More specifically, it aims to determine the types of studies conducted, their geographic

coverage, and the thematic areas they address within this period. It also examines the outcomes of the CBFM implementation in various dimensions. Furthermore, the paper analyzes the factors that facilitate or hinder the effective implementation of CBFM programs. Finally, it explores how national policy shifts and reforms relate to the trends and results reported in empirical studies, providing a holistic understanding of the direction and effectiveness of CBFM in the Philippine context.

This study is important in understanding how public governance shapes the management of forest resources in the Philippines through shared responsibilities between national and local institutions. It emphasizes the importance of community empowerment, the vital role of local communities, and indigenous groups as active partners in sustaining and protecting forest areas. It also contributes to the achievement of Sustainable Development Goal (SDG) 15 (Life on Land) by supporting conservation of forests, sustainable management of natural resources, and development that is inclusive for present and future generations.

METHODOLOGY

Research Design. The paper has employed a qualitative method with a systematic literature review. The nature and purpose of the study are factors that influence the choice of this research design. As defined by Purssell and McCrae (2020), a systematic review is the ‘rigorous summarization of available evidence which takes place using transparent and replicable processes to identify, select and critically appraise relevant research’. Therefore, this design is deemed appropriate in the study as it would consolidate and evaluate primary studies about CBFM in the Philippines (from 2000 to 2025).

Scope and Criteria. The review focused only on CBFM studies in the Philippines, particularly on how policies like Executive Order 263 (1995) and the National Greening Program (NGP) influence forest governance and community participation. It included empirical studies, either quantitative, qualitative, or mixed-methods, to ensure reliable analysis.

Inclusion Criteria. The criteria were based on Purssell and McCrae's (2020) principle of "explicitly defined eligibility parameters" to minimize selection bias:

1. Published between 2000 and 2025;
2. Conducted in the Philippines;
3. Focused on CBFM implementation, governance, or policy outcomes;
4. Presented empirical evidence;
5. Written in English or Filipino.

Exclusion Criteria. The following are not included in the study:

1. Non-Philippine or comparative international contexts;
2. Purely biophysical or ecological studies without governance or social components;
3. Editorials or conceptual papers lacking data;
4. Studies published outside the defined time range.

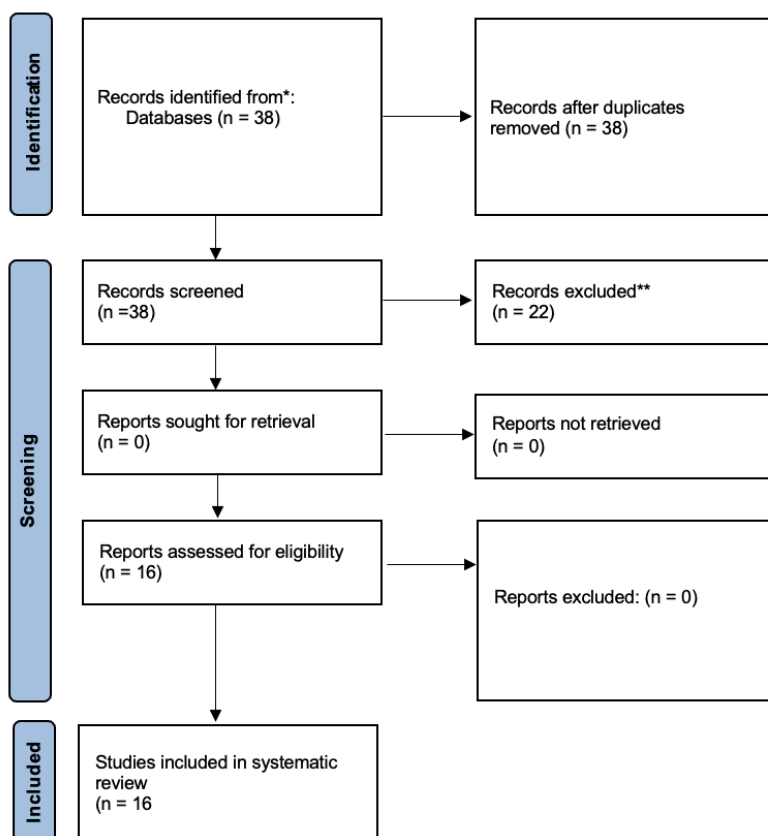
Search Strategy. The three-step approach of Purssell and McCrae (2020) to a systematic search (i.e., first, posing the question; second, systematically locating and retrieving literature; and third, recording these stages with transparency) was followed. Searches were conducted in September 2025 and included academic databases and grey literature to identify specific outcomes. The databases and repositories used in the study comprised EBSCO, ScienceDirect, Google Scholar, and Philippine E-Journals, as well as grey literature from DENR-FMB, ERDB, Haribon Foundation, NTFP-EP, and university research portals. Search strings combined Boolean search and key concepts: "Community-Based Forest Management" OR "CBFM" OR "community forestry") AND ("Philippines" OR "Philippine forests") AND ("forest governance" OR "policy implementation" OR "tenure") AND ("sustainable" OR "sustainability").

Screening and Selection Process. In accordance with the PRISMA 2020 guidelines on reusability, a structured filtering process, as recommended by Purssell and McCrae (2020), was adopted throughout this review to ensure methodological transparency. The process began by searching for all potential citations. The second step was

screening, followed by title and abstract review after duplicates were removed. During the eligibility phase, full-text versions of the remaining studies were screened with predefined inclusion/exclusion criteria. Finally, in the synthesis stage, we incorporated studies only if they met all criteria. The final PRISMA flow diagram (see Figure 1) summarizes the number of records identified, screened, and included.

PRISMA 2020 flow diagram for the CBFM systematic review which included searches of databases

Figure 1. PRISMA Flow Diagram for the CBFM Systematic Review



Source: Page MJ, et al. BMJ 2021;372:n71. doi: 10.1136/bmj

Data Extraction and Coding

A codebook was developed to facilitate a uniform approach toward data extraction, consistent with the advice given by Purssell and McCrae (2020) to use pre-established frameworks that include descriptive and analytic dimensions. Under the domains below, each of the included studies was coded:

- Bibliographic information: Author, year, title, and source;
- Geographic coverage: Region or island group (Luzon, Visayas, Mindanao);
- Methodology: Study design, data collection type (qualitative, quantitative, or mixed);
- Outcome domains: Environmental (forest cover, biodiversity), livelihood (income, employment), and governance (participation, equity);
- Contextual factors: Enablers (e.g., secure tenure, strong POs, LGU support) and barriers (e.g., policy inconsistency, lack of funds, elite capture);
- Policy references: Mentions of EO 263, IPRA 1997, EO 318, EO 23, and NGP;
- Outcome direction: Classified as positive (+), neutral (0), or negative (–).

The data was coded in Excel and cross-verified manually so as to ensure its accuracy.

Data Analysis

For data analysis, this review employed a combined quantitative evidence mapping and qualitative thematic synthesis methodology, as per Purssell and McCrae (2020), ensuring that empirical techniques for both numerical and narrative methods of analysis were used in synergy to complement each other. To characterize the evolution and geographic distribution of CBFM research, we also carried out evidence mapping according to year, region, and type of research.

Positive, neutral, or negative trends in environmental, livelihood, and governance impacts were identified through the voting process as a reflection of the directionality in the impact assessment. Thematic synthesis was conducted inductively

to identify common facilitators and barriers, which were grouped into higher-order themes, including institutional capacity, local leadership, resources, and market leaders. Finally, policy congruence considered the level of compatibility between the findings and national forest policies, identifying where there are consistencies or differences in local CBFM practices with state frameworks. Results were visualized through (a) PRISMA flow diagram, (b) evidence map, (c) enabler–barrier matrix, and (d) policy–outcome alignment timeline.

Trustworthiness and Quality Assurance

Consistent with Purssell and McCrae's (2020) guidance on methodological transparency and replicability, a number of steps were taken to enhance the dependability of this review. A *protocol* in accordance with PRISMA 2020 was established to conduct the analysis systematically. *Double coding* was performed in which data extraction and confirmation were done by at least three researchers to reduce bias. A *record* was kept of all decisions to include or exclude studies. Data were *triangulated* with the inclusion of content from academic sources, government documents, and NGO reports to improve credibility. As for *reflexivity*, the authors have a range of professions, but all are working on public administration doctoral degrees. This common academic grounding may inform their perspectives and highlight the policy implementation, governance process, and management aspects of CBFM.

Ethical Consideration

No ethical clearance was required as the study made use of only publicly available material. Academic integrity was maintained through proper citation and recognition of all original authors. Furthermore, as indicated, transparent ethical review of secondary studies comprises correct citation of sources from which data are collected, with open reporting on how the review was performed (Purssell & McCrae, 2020).

Methodological Limitations

Consistent with Purssell and McCrae (2020), we acknowledge that the strength of a systematic review is dependent on the quality of studies to which it refers, and we have identified several limitations. The literature on CBFM is geographically biased, as it is more prevalent in Luzon and less so in Visayas and Mindanao. The diverse methodological approach of the included studies, spanning from case and survey to qualitative reports, is also a limitation that hinders direct comparison. Furthermore, some local theses and agency reports may not be included in public databases, which could eliminate valuable data. Notwithstanding these limitations, the systematic review offers a rigorous and replicable account of almost twenty-five years of CBFM implementation, generating valuable perspectives on trends in sustainable forest governance in the Philippines over time.

Results and Discussion

Profile of Included Studies. A total of 16 CBFM and forest governance studies in the Philippines (2006-2024) were included in the review. Most of these studies used qualitative or mixed-methods research designs that focus on the practices for managing forest resources by institutions, communities, and government departments (see Table 1). The studies focused on the national and regional levels in Luzon, the Cordillera, and the Ifugao areas, which maintain CBFM and indigenous forest systems, such as Muyong. Only a few articles have examined the issue in Mindanao and the Visayas, demonstrating that there is space for more geographically balanced research. The majority of these works focused on governance, institutional arrangements, and policy implementation, while a few addressed livelihood outcomes, forest restoration, and indigenous knowledge systems.

Table 1
Profile of Included Studies (n=16)

Author(s) & Year	Title	Study focus	Research method	Coverage	Type of forest	Policy reference	Key findings
Pulhin et al. (2024)	Contextualizing sustainable forest management and social justice in community-based forest management (CBFM) program in the Philippines	National assessment linking CBFM with social justice and policy reform	Mixed methods; policy analysis	Philippines (nation-wide)	CBFMA sites	EO 263, EO 318	Shows positive forest outcomes and advocates for inclusive and equitable governance.
Cagalanan (2015)	Governance Challenges in CBFM in the Philippines	Governance and institutional barriers	Qualitative case study; interviews	Central Luzon & Mindanao	CBFMA	EO 263, IPRA	Identifies weak accountability and limited local capacity as persistent issues.
Carig (2012)	Impact Assessment of Community-Based Forest Management in the Philippines: A Case Study of CBFM Sites in Nueva Vizcaya	Program impact evaluation	Mixed methods; survey + FGD	Nueva Vizcaya (Luzon)	CBFMA	EO 263	Reforestation success and improved livelihoods but unequal benefit distribution.

Pulhin & Inoue (2008)	Dynamics of Devolution Process in Philippine Forests	Decentralization and policy transfer	Policy analysis; secondary data	National	Multiple CBFM sites	EO 263, NIP-AS	Devolution improved participation but created power asymmetries.
Pulhin et al. (2007)	Three Decades of CBFM in the Philippines	Historical and policy synthesis	Meta-synthesis	National	CBFMA	EO 263	Traces policy evolution and identifies sustainability gains and tenure issues.
Sugimoto (2011)	Decentralization and Ignored Local Dynamics	Local leadership and governance	Case study; field interviews	Luzon	CBFMA	EO 263	Highlights elite capture and limited autonomy in CBFM projects.
Mendoza (2009)	Policy Innovations and Effective Local Management in the Cordillera	Indigenous forest management	Case study; document review	CAR Region	Ancestral forest / CBFM hybrid	IPRA, EO 263	Shows IP governance models can enhance forest sustainability.
Camacho et al. (2016)	Indigenous Knowledge and Practices for Ifugao Forests	Traditional ecological knowledge	Case study; ethnography	Ifugao (Luzon)	Muyong system	IPRA	Demonstrates cultural stewardship as a foundation for forest resilience.

Dolom et al. (2018)	The Sustainable Forest Management Law (EO 318): Formulation of its implementing rules and regulations.	Policy design and inter-agency coordination	Document analysis	National	Policy framework	EO 318, EO 23	Emphasizes multi-agency collaboration for SFM integration.
Domingo & Manejar (2018)	Forest Protection in the Philippines	Law enforcement and governance	Secondary data analysis	National	CBFM areas	EO 23	Reports weak LGU enforcement and political interference in forest protection.
Baynes et al. (2015)	Key factors influencing the success of community forestry in developing countries	Comparative success factors	Meta-study	Global (includes PH)	CBFM / co-managed	EO 263	Identifies tenure clarity and strong POs as key success drivers.
Abayao (2021)	Policy Landscape for Customary Forest Management in the Philippine Cordilleras	Customary forest governance and policy interplay in Cordillera	Policy and legal analysis; ethnographic insights	Cordillera Region	Indigenous forest (Muyong)	IPRA, EO 263	Explores intersections between customary law and national forest policies.

Dahal, G. R., & Capistrano, D. (2006)	Forest governance and institutional structure: an ignored dimension of community based forest management in the Philippine.	Institutional arrangements and forest governance dynamics.	Qualitative analysis; institutional comparison	National	CBFMA	EO 263	Examines the influence of institutional structures on governance effectiveness.
Reyes et al. (2024)	Community-Based Forest Management: Challenges and Opportunities in Tropical Asia: Challenges and Opportunities in Tropical Asia	Comparative regional study with Philippine case.	Document review	Asia (Philippines case)	CBFMA	EO 263	Discusses implementation diversity and governance gaps in Asian CBFM context

Environmental impacts were largely positive throughout the literature. Community involvement in the protection and reforestation of forests succeeded where land tenure was secure, and POs were active. Studies such as Pulhin et al. (2024), Carig (2012), and Camacho et al. (2016) also reported better forest conditions and established local stewardship. The livelihood impacts, however, were mixed, such that many communities gained from forest-based enterprise and training activities; others lost as a result of weak markets and short-term support through projects. The outcomes of governance also differed: some studies (e.g., Cagalanan, 2015; Mendoza,

2009; Dolom et al., 2018) showed high participation and cooperation between LGUs and POs, while others found low accountability and bureaucratic red tape that produced delays in implementation. The studies reviewed show that CBFM research in the Philippines has been principally focused on governance and institutional arrangements, with less attention to economic and environmental measurement. The emphasis on this suggests the way CBFM has been discursively constructed by academics more as a governance and policy issue, rather than a biophysical or economic initiative.

The dominance of qualitative design means that most research comes from an understanding perspective on community experiences, participation, and policy processes rather than the measurement of ecological or livelihood impacts. This is consistent with the multidisciplinary nature of CBFM, in which policy implementation and local agencies play a critical role. However, the limited number of quantitative and mixed methods studies indicates a knowledge gap in quantifying changes in forest conditions and livelihoods. The spread of studies into more regional groupings at the Luzon or national level may be an indication of a spatial bias that could obscure knowledge about specific CBFM types in other parts of the country, such as Visayas and Mindanao, where local institutional conditions and resources will differ.

In terms of the thematic and institutional orientation, most studies are closely related to E.O. 263, together with other policy instruments like E.O. 318, E.O. 23, and IPRA. This recurring reference drives home that CBFM research is firmly embedded within the national policy context and how these legislative tools shape forest regulation and local engagement. Abayao (2021) and Pulhin et al. (2024) also identify a growing engagement with traditional governance, indigenous systems, and social justice in forest management challenges.

At the same time, the advent of regional comparative studies, like Reyes et al. (2024), means that CBFM research in the Philippines is now more situated in a wider Southeast Asian discourse on community forestry. In general, these trends indicate that the CBFM literature has become strongly institutionally and policy-oriented but still needs further methodological types and spatial coverage, as well as cross-sector analysis in order to capture the complex emerging dimensions of community-based

forest governance in the Philippines.

Documented Environmental, Livelihood, and Social Outcomes of CBFM

Most programs exhibit positive impacts on the environment in various ecosystems, as indicated by most program sites throughout the Philippines (see Table 2). Forest recovery took place through reforestation, community patrols, and indigenous management practices, especially in areas where active people’s organizations (PO) coupled with recognized tenure. Studies such as Pulhin et al. (2024), Camacho et al. (2016), and Ceballos (2016) indicated that when communities are involved in forest protection, forest cover was good and illegal logging was at a minimum. Meanwhile, cases in indigenous communities such as those of Mendoza (2009) and Abayao (2021) illustrated the ability of traditional knowledge systems to sustain forest protection and biodiversity. Only a couple of studies, including Cagalanan (2015) and Sugimoto (2014), discussed sporadic implementation or unsustainable gains because of inadequate monitoring and overlapping agency jurisdictions.

Table 2.
Documented Environmental, Livelihood, and Governance Outcomes of CBFM Implementation (2000–2025)

Author(s) & Year	Environmental Outcomes	Livelihood Outcomes	Governance / Social Outcomes	Overall Outcome Pattern
Pulhin et al. (2024)	Positive – Improved forest protection, rehabilitation, and sustainable management.	Mixed – Limited livelihood continuity due to funding cycles.	Positive – Promoted justice-based and participatory governance reforms.	+ ± +
Cagalanan (2015)	Mixed – Inconsistent local enforcement of forest rules.	Mixed – Unequal access to forest income and projects.	Negative – Bureaucratic inefficiency and elite capture limit participation.	± ± –

Carig (2012)	Positive – Noticeable reforestation success and vegetation recovery.	Positive – Increased income from forest-based employment.	Mixed – Limited representation of marginalized groups.	+ + ±
Pulhin & Inoue (2008)	Positive – Improved reforestation and resource monitoring.	Mixed – Uneven benefit sharing among stakeholders.	Mixed – Limited decentralization and LGU dependency on DENR.	+ ± ±
Pulhin, Inoue & Enters (2007)	Positive – Stable forest cover and resource protection.	Positive – Enhanced community participation in livelihood activities.	Positive – Institutional learning and strengthened community organization.	+ + +
Sugimoto (2011)	Mixed – Short-term environmental gains not sustained.	Mixed – Minimal livelihood benefits and inequitable sharing.	Negative – Political interference and elite control.	± ± –
Mendoza (2009)	Positive – Forest stability under customary systems.	Mixed – Subsistence-based livelihoods with limited market access.	Positive – Indigenous governance ensures community compliance and trust.	+ ± +
Camacho et al. (2016)	Positive – Forest and watershed protection through traditional knowledge.	Positive – Culturally aligned livelihood and farming systems.	Positive – Strong social cohesion and rule compliance.	+ + +
Dolom et al. (2018)	Positive – Strengthened environmental coordination via EO 318.	Mixed – Limited direct economic outcomes.	Positive – Enhanced policy collaboration and inter-agency linkages.	+ ± +
Domingo & Manejar (2018)	Mixed – Partial improvements in enforcement and logging reduction.	Neutral – Minimal livelihood benefits from protection programs.	Negative – Weak LGU capacity and political interference.	± 0 –

Baynes et al. (2015)	Positive – Tenure clarity and participation improve resource outcomes.	Positive – Market-based livelihood incentives observed.	Positive – Effective local governance and PO empowerment.	+ + +
Abayao (2021)	Positive – Sustainable forest condition under customary governance.	Mixed – Limited livelihood monetization but stable subsistence use.	Positive – Integration of indigenous and formal systems strengthens legitimacy.	+ ± +
Dahal & Capistrano (2006)	Positive – Improved forest management through institutional mechanisms.	Mixed – Benefit distribution uneven across organizations.	Mixed – Institutional complexity weakens transparency.	+ ± ±
Reyes et al. (2024)	Positive – Regional CBFM initiatives reduce deforestation rates.	Mixed – Economic benefits vary by country and policy context.	Positive – Regional cooperation and shared governance learning.	+ ± +
Ceballos (2016)	Positive – Measurable forest rehabilitation in project area.	Positive – Households report modest income increases.	Positive – Active PO and LGU partnership observed.	+ + +
Tole (2010)	Positive – Global evidence shows reforestation success with local participation.	Positive – Diverse livelihood impacts from forest programs.	Positive – CBFM enhances democratic participation globally.	+ + +

Outcomes regarding livelihood and governance were, however, more diverse. Although some projects created other sources of revenue and forest-based businesses (Carig, 2012; Baynes et al., 2015; Ceballos, 2016), others could not maintain benefits after the end of a project. Many cultures encountered problems with marketing, finance, and governance systems, which cause disparate benefits distribution and reliance on external support. Governance outputs were likewise diverse, ranging from participative and well-coordinated schemes (Dolom et al., 2018; Pulhin et al.,

2007) to bureaucratic inertia, elite capture, and political alignment (Cagalan, 2015; Sugimoto, 2011). Despite these difficulties, the majority of studies reported increasing coordination between government agencies, local organizations, and indigenous groups in decision-making about forests.

The results suggest that CBFM has been more developed in research and practice relating to governance of forest management, both at the institutions' or communities' level, rather than on the economic and environmental aspects. The majority of reported environmental outcomes implied that communities have taken up their role as forest stewards, although livelihoods and governance outcomes revealed persisting variation in social and administrative frameworks. This discrepancy may also represent differences in the local organization capacity and policy implementation among these groupings, help from DENR, and the LGU. A finding from the more localized Cordillera and Ifugao, however, highlights that forest management is not a "one size fits all" pursuit.

Moreover, these findings indicate that CBFM strength is based on its institutional diversity and adaptability, but it also leads to uneven results. In order to improve CBFM, more attention needs to be paid to the process of mainstreaming indigenous knowledge, supporting livelihood, and policy convergence between sectors. Policies such as EO 263 and IPRA must be integrated with and in consonance with the local governance system to ensure that justice and equity are a part of forest management. Furthermore, there is a need for further studies to document CBFM performance in the underrepresented areas of Visayas and Mindanao to have a comprehensive forest governance condition. The findings from these sixteen studies provide evidence that, although restoration progress can be seen, a stronger connectivity at the institutional level and community participation in reviving sustainable livelihoods and transparent governance are required.

Factors that Facilitate or Hinder Effective Implementation of CBFM

The various institutional, socio-economic, political, ecological, and policy/legal drivers that influence the practice of CBFM in different areas of the Philippines were

common concerns (see Table 3). Institutional factors were the most frequently talked about and included consideration for tenure security, the strength of the organization, and coordination between agencies and communities. Studies such as Pulhin et al. (2024); Dahal and Capistrano (2006); Cagalanan (2015) have demonstrated that participation and management of forests at the local level are enhanced when people’s organizations POs are active, and they have secure legal rights to forestland. Studies such as Pulhin et al. (2024), Dahal and Capistrano (2006), and Cagalanan (2015) have demonstrated that where areas have relatively strong or secure tenure by local peoples’ organizations, management quality increases. But many also complained of bureaucratic delays, overlapping mandates, and poor accountability that delay implementation or dampen community enthusiasm. These trends suggest that having administrative functioning and transparency at the heart of governance is essential for CBFM performance.

Table 3.
Institutional, Socio-Economic, Political, Ecological. Policy/Legal Factors Influencing CBFM Implementation

Factor Category	Enabling Factors	Hindering Factors	Supporting Evidence / Key Studies	Interpretation / Notes
Institutional	• Secure tenure through CBFMA and ancestral domain claims • Strong and active People’s Organizations (POs) • Collaboration between DENR, LGUs, and communities • Multi-agency coordination for policy and enforcement	• Bureaucratic delay and complex permitting • Weak accountability and inconsistent monitoring • Overlapping mandates among agencies • Dependence on external funding	Pulhin et al. (2024); Dahal & Capistrano (2006); Cagalanan (2015); Dolom et al. (2018); Ceballos (2016)	Institutional performance determines implementation success. Effective organizations and tenure clarity create shared accountability, while bureaucratic inefficiencies reduce local autonomy and community trust.

Socio-Economic	• Livelihood training and enterprise development • Market access for forest and non-timber products • Cooperative marketing and micro-financing • Skills development from CBFM projects	• Limited access to capital and markets • Short-term project cycles • Unequal benefit distribution • Lack of post-project sustainability	Carig (2012); Baynes et al. (2015); Ceballos (2016); Tole (2010)	Economic viability depends on continuous support and value-chain integration. Communities with sustained livelihood programs show stronger participation, while those without remain dependent on external aid.
Political	• Supportive LGU leadership and active barangay councils • Devolution under EO 263 enabling community participation • Political backing for resource access and enforcement	• Elite capture of benefits • Political interference in project selection • Inconsistent policy enforcement • Patronage politics in LGU decision-making	Pulhin & Inoue (2008); Cagalanan (2015); Sugimoto (2011); Domingo & Manejar (2018)	Political will influences accountability and transparency. Where leadership is stable and inclusive, participation strengthens; where politics dominates, implementation becomes selective and inequitable.
Ecological / Cultural	• Integration of traditional ecological knowledge (e.g., <i>muyong</i>, <i>batangan</i>) • Stable forest ecosystems and local stewardship • Community adaptation to changing forest conditions	• Deforestation pressure and land conversion • Limited climate adaptation mechanisms • Erosion of traditional values among younger generations	Camacho et al. (2016); Mendoza (2009); Abayao (2021); Pulhin et al. (2024)	Indigenous and cultural knowledge systems promote long-term forest care and compliance. Ecological sustainability is higher where communities integrate customary norms into CBFM activities.

Policy / Legal	• Clear mandates under EO 263 and IPRA • Multi-level coordination under EO 318 and EO 23 • Legal recognition of ancestral domains • Regional cooperation and learning (ASEAN context)	• Fragmented and overlapping policy instruments • Slow policy implementation • Weak enforcement and lack of monitoring • Limited harmonization of national and local policies	Dolom et al. (2018); Reyes et al. (2024); Pulhin et al. (2024); Abayao (2021)	Policy coherence is essential for continuity. When EO 263 and IPRA operate together, governance is inclusive; when policies conflict or remain fragmented, program coordination weakens.
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There are also social, political, and economic factors that explain the variation in outcomes. Carig (2012), Baynes et al. (2015), and Ceballos (2016) established that the in-process livelihood training, market access, and enterprise development promote continued participation, whilst inadequate funding results in total reliance on government or donors. Politically, devolution under EO 263 and the backup provided by local government units were considered as enabling conditions, but problems such as elite capture, political intervention, and uneven enforcement remain to act as constraints to the program (Pulhin & Inoue, 2008; Cagalan, 2015; Sugimoto, 2011). Environmental and cultural contexts, such as the indigenous practices in Cordillera and Ifugao (Camacho et al., 2016; Abayao, 2021), enhance adherence and biodiversity conservation. Also, the policy and legal context continues as a two-edged factor, such that the EO 263 and IPRA empower communities but also create fragmented or overlapping regulations that may challenge collaboration and efficiency (Dolom et al., 2018; Reyes et al., 2024).

The results further suggest that institutional and policy continuity is the hallmark of a successful CBFM implementation. These findings provide evidence that when agencies and communities are working with clear rules, with tasks that align to support, programs can succeed. These enduring bureaucratic shortcomings and unhelpful regulations indicate that CBFM operations are still complicated, so they often deter communities from managing. With better coordination between DENR and LGUs, local groups, etc., red tape would be reduced, hence trust could grow. And this variability embodies a larger governance issue, such that good laws, such as EO

263, EO 318, and IPRA, were crafted, but it requires local tandems more sensitive to sensibilities that can work on the confluence between mandates, coalesce resources, but tastefully execute together.

Regarding the social, economic, and environmental aspects, CBFM is robust in terms of the community's knowledge, culture, and livelihood. When programs are established that encourage the integration of indigenous systems of forest management, as seen in the Muyong and Batangan, they can develop cultural legitimacy and long-term sustainability. But increasing income is challenging with market barriers and inconsistent initiatives persist. These findings imply that future CBFM projects should be equally strong in their emphasis on not only conservation but also economically viable forms of adaptation. They would benefit from greater stability in funding provision, support for enterprise development, and ensuring value chain linkages. Policy coherence and inclusive governance will be an essential component to maintain the degree of citizen activism illustrated in this case, so that local forest users are full partners in securing sustainable, long-term national forest resource use.

National Policy Shifts, Trends, and Results Reported in Empirical Studies on CBFM

The CBFM in the Philippines has evolved through a set of national policy frameworks dating from the mid-1990s to the present (see Table 4). The most commonly referenced are Executive Order (EO) 263 of 1995, elevating CBFM as the national policy for sustainable forest management, and the Indigenous Peoples' Rights Act (IPRA) 2 of 1997, which recognized ancestral domains and customary governance over forests. These two frameworks are foundational to many of the studies (Pulhin et al., 2024; Mendoza, 2009; Camacho et al., 2016; Abayao, 2021), manifesting that tenure security and community participation form the basis of forest governance. Subsequent policies, including EO 318 (2004) on Sustainable Forest Management and EO 23 (2011) on the logging moratorium, further strengthened the protection of the environment with varying implementation results. Simultaneously, the NGP, which started in 2011,

received praise for its reforestation achievements as well as criticism for not securing long-term livelihoods with projects being of short duration that came to an end when external funding ceased (Ceballos, 2016; Pulhin et al., 2024).

Table 4.

CBFM Policy Shifts and Empirical Outcomes (2000–2025)

National policy / framework	Core policy intent	Empirical evidence from studies	Observed outcomes	Implications
Executive Order 263 (1995) – Adopting CBFM as the national strategy for sustainable forestry	Institutionalize participatory forest management, secure tenure, and promote livelihood development	Pulhin et al. (2024); Pulhin, Inoue & Enters (2007); Cagalanan (2015); Carig (2012); Ceballos (2016); Dahal & Capistrano (2006)	Positive environmental outcomes (reforestation, forest protection); moderate livelihood improvements; mixed governance depending on agency support	EO 263 remains the foundation of Philippine CBFM, providing a tenure-based framework that works best when local institutions and POs are supported and monitored.
Indigenous Peoples' Rights Act (IPRA, 1997)	Recognize ancestral domain ownership and integrate customary forest governance	Mendoza (2009); Camacho et al. (2016); Abayao (2021)	Positive outcomes for forest conservation, cultural resilience, and rule compliance in indigenous-managed forests	IPRA strengthens legitimacy of forest governance where customary systems are recognized, but integration with DENR structures remains incomplete.
Executive Order 318 (2004) – Promoting Sustainable Forest Management (SFM)	Align forest protection, biodiversity conservation, and CBFM under one SFM framework	Dolom et al. (2018); Pulhin et al. (2024)	Positive environmental coordination; limited livelihood linkages	EO 318 improved policy coherence but faced weak implementation due to bureaucratic overlap and limited local operationalization.

Executive Order 23 (2011) – Logging Moratorium and Forest Protection	Halt commercial logging and strengthen law enforcement	Domingo & Manejar (2018); Dolom et al. (2018)	Mixed results—reduced illegal logging but inconsistent enforcement at the local level	EO 23 improved forest protection in some areas but highlighted uneven LGU and DENR enforcement capacities.
National Greening Program (NGP, 2011–present)	Accelerate reforestation and create green jobs and livelihood	Pulhin et al. (2024); Ceballos (2016)	Positive short-term reforestation; limited livelihood continuity post-project	NGP expanded forest cover but remained project-based, with limited community ownership and monitoring after funding cycles ended.
NIPAS Act (1992) & ENIPAS Act (2018)	Protect ecologically critical areas under a national protected-area system	Pulhin & Inoue (2008); Mendoza (2009); Abayao (2021)	Positive environmental protection but reduced livelihood access for nearby communities	These laws strengthened biodiversity conservation but revealed trade-offs between environmental protection and community inclusion.
Local Government Code (1991) – Devolution of Environmental Functions	Transfer environmental management and enforcement responsibilities to LGUs	Pulhin & Inoue (2008); Cagalanan (2015); Sugimoto (2011); Ceballos (2016)	Mixed governance performance—effective where LGUs proactive, weak where capacity low	Devolution created opportunities for participatory governance but also exposed disparities in local capacity and political will.
Regional and ASEAN Frameworks (e.g., ASEAN Heritage Forests & Cross-Border Initiatives)	Strengthen regional cooperation and policy learning for community forestry	Reyes et al. (2024)	Shared learning and improved coordination among Southeast Asian CBFM programs	Regional collaboration enhances mutual policy learning, offering comparative models for improving Philippine CBFM implementation.

Other policies, such as the NIPAS Act of 1992, ENIPAS Act of 2018, and the Local Government Code (1991), also influenced the country's wider forest governance framework. This legislation made conservation and devolution more robust; however, the paradox of synergy remains: they highlighted the lack of coordination between

national institutions and LGUs (Pulhin & Inoue, 2008; Cagalanan, 2015; Sugimoto, 2011). Recent analyses by Abayao (2021) as well as Reyes et al. (2024) also point to new policy directions that are incorporating indigenous systems and regional cooperation within community forestry. These more recent contributions show how Philippine forest governance itself has also evolved from the national to adaptive, multi-level, and culture-based.

The findings reveal that a coherent policy and an institutionally consistent structure are crucial in order to achieve the success of CBFM in the Philippines. Legal and moral principles, such as EO 263 and IPRA, build the foundation of community-based governance, giving legitimacy but also responsibility to local communities in managing forest resources. But later policies, such as EO 318, EO 23, and NGP, were filled with new regulations, including ones that contradicted old ones. This fragmentation of policy, as discovered by Dolom et al. (2018) and Pulhin et al. (2024), illustrates how well-meant reforms can run into administrative complexity when implemented in a fragmented manner. Deconcentration in the Local Government Code also resulted in a few areas with increased participation, but it laid bare differing local capacity and accountability dynamics.

Furthermore, the findings imply that the next wave of CBFM policy reform will need to focus on harmonization and adaptive governance rather than further mandates. The alignment of EO 263 and IPRA with sustainability criteria, under EO 318, for natural resources utilization, along with the bidirectional information exchange process in NGP, might form a strong integration framework where the national agenda gets fully implemented at the local level. It would adhere to the recommendations of the studies to integrate the traditional governance systems and a regional policy learning to strengthen CBFM inclusiveness and resilience to climate and social change (i.e., Abayao, 2021; Reyes et al., 2024). An enabling policy environment will be required, one that reduces duplication, streamlines reporting, and enhances accountability, to institutionalize the ecological, social, and institutional benefits of CBFM. These developments illustrate the evolving character of forest governance dynamics in the Philippines as they reveal that long-term successes will depend on national agencies partnering with LGUs and IPs.

CBFM in the Philippines has evolved from being government reforestation into forest governance in which state institutions, local governments, and communities share responsibility. More recently, for the last two decades, two issues have attracted attention in the CBFM research, which are governance and institutional arrangement, which have evidenced that CBFM, since it was launched as an environmental program, has been turned into a “new” modality of participatory governance and policy experiment. Environmental returns are consistently positive as a result of good local stewardship, but livelihood and governance effects vary with institutional embedding, policy integration, and capacity. Policy antecedents EO 263 (1995) and IPRA (1997) legitimized CBFM and delineated the direction it would take in terms of being participatory, while subsequent initiatives such as EO 318, EO 23, and NGP broadened its scope both environmental and social, but issues were raised on coherence and continuity.

These results demonstrate that the sustainability of CBFM is not a function of how many policies are implemented, but rather how well they are incorporated, localized, and continually reinvented. Enforcement of the law must be made effective by aligning national aspirations with ground realities- linking forest protection to ensuring the means for livelihood and legal structure to indigenous and local governance practice. The increasing integration of customary systems and regional learning mechanisms (Abayao, 2021; Reyes et al., 2024) suggests that Philippine forest governance is slowly heading towards more context-conscious and culture-based practices. Into its third decade, CBFM’s institutional maturity and long-term contribution to sustainable development will rest on the harmonization of policy, inclusive participation, and the elevation of communities as equal partners in managing their forested landscapes.

CONCLUSION

Drawing upon a systematic review and critical analysis of empirical research produced in the Philippines between 2000 and 2025, this paper presents an overview and synthesis of how local participation influences forest governance outcomes under CBFM. The evidence across the 16 studies shows most clearly that CBFM has contributed significantly to environmental rehabilitation and protection of biodiversity through

community stewardship, although impacts on livelihoods and governance are uneven.

Tenure security, local participation, and indigenous knowledge emerge as key facilitators of such positive development outcomes, while some extent of institutional fragmentation, bureaucratic lags in decision-making, and policy enforcement impede equitable and sustainable benefits. Building on over two decades of studies, this study emphasizes that ‘the long-term sustainability’ of CBFM is not simply contingent upon having good policies, but also heavily depends on the local institutions in place and their ability to implement.

The findings also confirm the core idea of this review, that life on land literally begins at the local level. Only by empowering the local people as direct agents of the environment can the Philippines realize sustainable forest governance. Reinforcing the links between national reform and grassroots practice will ensure CBFM’s benefits are sustainable and general, furthering the wider aims of environmental sustainability, social justice, and community resilience that are embedded in Sustainable Development Goal 15 (Life on Land).

RECOMMENDATIONS

Based on the evidence that successful Community-Based Forest Management (CBFM) depends on institutional and political coherence, this review proposes a strategic three-pronged reform agenda focusing on (1) institutional and policy coherence, (2) sustainable livelihood and enterprise development, and (3) bridging knowledge and geographic gaps.

Institutional and Policy Coherence

The problem is not so much the absence of a good policy in CBFM, but rather the fragmented and inconsistent implementation. The harmonization of forest-related policies should become a national and local government priority by the issuance of a high-level directive that explicitly integrates EO 263 (CBFM), EO 318 (Sustainable Forest Management), and IPRA (Indigenous Peoples’ Rights Act) into one common framework

of governance. It will minimize cross-jurisdictional duplication and confrontational expectations. The Department of Environment and Natural Resources (DENR) and relevant agencies should streamline administrative procedures, reduce permit backlogs, and enable direct funding to People's Organizations (POs) and Local Government Units (LGUs) that meet capacity standards. Institutional reforms must reinforce tenure security and embed transparency and accountability through a CBFM Performance-Based Monitoring System that tracks both environmental outcomes and benefit equity. Regular independent audits and anti-elite capture mechanisms are essential to ensure integrity and inter-agency collaboration.

Sustainable Livelihood and Enterprise Development

Livelihood diversification and market links must be built into the design of the program if CBFM is to succeed in the long term. Mandate partnerships with the Department of Trade & Industry (DTI), financial institutions, and the private sector to improve access to credit, training, and markets for NTFPs, forest-based enterprises, and eco-tourism ventures. Provision must be made for forest revenue to be re-invested in PO capacity building, the protection of forest resources, and the promotion of cooperative marketing, thus promoting self-reliance whilst decreasing dependency on external donors.

Bridging Knowledge and Geographic Gaps

Investments in research need to focus on marginalized regions, such as the Visayas and Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), which have unique institutional and cultural contexts that influence governance outcomes. Further studies need to be conducted, preferably in mixed method approaches blending quantitative ecological and socio-economic indicators with qualitative analysis of governance performance. This work will result in a rigorous, evidence-based picture of the more lasting environmental, institutional, and social impacts of CBFM.

Indeed, sustainable forest governance in the Philippines is only possible through coordinated institutions, empowered communities, and evidence-based policymaking. Integrating national policies with local action ensures that life on land begins locally, where empowered people and healthy forests support each other. Hence, with these recommendations, a better and more responsive CBFM will be promulgated.

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