INDONESIAN JOURNAL OF SOCIAL AND ENVIRONMENTAL ISSUES (IJSEI)
Journal Homepage: https://ojs.literacyinstitute.org/index.php/ijsei
ISSN: 2722-1369 (Online)
Research Article

Volume 6	Issue 2	August (2025)	DOI: 10.47540/ijsei.v6i2.2033	Page: 233 – 245

Insights Into Landscape-Scale Actions: Lessons from the Riau Landscape Program, Indonesia

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ARTICLE INFO

Keywords: Climate Change; Environmental Impact; Forest Conservation; Landscape Approach; Multi-Stakeholder Collaboration.

Received : 22 May 2025
Revised : 15 June 2025
Accepted : 28 August 2025

ABSTRACT

In recent decades, the world has faced increasing socio-environmental risks due to record-breaking global temperatures driven by climate change. These impacts, ranging from extreme weather, prolonged droughts, and biodiversity loss to food insecurity, displacement, and economic disruption, are expected to intensify without effective mitigation. One response is the landscape approach, promoting multi-stakeholder collaboration to balance commodity production, forest conservation, sustainable livelihoods, and community well-being. This study examines the successes, challenges, and lessons from Phase 1 (2021–2025) of the Riau Landscape Program by Earthworm Foundation and provides strategic recommendations to strengthen Phase 2 (2026–2030). Using a qualitative case study approach including semi-structured interviews, focus group discussions, and document review, the study identifies four key themes influencing implementation: program design and delivery, institutional and policy support, multi-stakeholder engagement, and internal governance and capacity. Applying the Five E's Framework for effective landscape implementation, the study proposes five strategic recommendations: (1) evaluating progress and learning from Phase 1, (2) strengthening governance by clarifying roles and improving systems, (3) adopting adaptive, phased approaches, (4) engaging stakeholders to scale impact and align with policy, and (5) fostering dynamic processes with risk management and iterative learning. The study also highlights future research opportunities, including assessing landscape approach impacts on corporate supply chains and exploring innovative financing mechanisms such as blended finance, green bonds, and carbon credits within the Indonesian context. These findings contribute to the advancement of integrated landscape approaches that align environmental sustainability with inclusive economic development.

INTRODUCTION

In recent decades, the world has faced significant increases in social and environmental risks due to global warming. The World Meteorological Organization (WMO) noted that the period 2015–2024 was the hottest decade since records began in 1850, with 2024 being the hottest year in history. The achievement of global average temperatures exceeding the threshold of 1.5°C above pre-industrial levels for the first time by 2024 marks a violation of the crucial threshold set in the 2015 Paris Agreement (Bevacqua et al., 2025).

Climate change is caused primarily by increased concentrations of greenhouse gases such as carbon dioxide (CO_2), methane (CH_4), nitrogen oxides, and chlorofluorocarbons (CFCs) in the atmosphere (Ramirez-Corredores et al., 2023). These emissions are mostly sourced from human activities, including the burning of fossil fuels, deforestation for agricultural purposes, and unsustainable consumption-production patterns (Calvin et al., 2023). The impacts of climate change extend to a wide range of sectors, ranging from environmental damage such as extreme weather, prolonged droughts, and biodiversity loss, to socio-economic impacts such as declining food security, mass displacement, and global economic losses (United Nations, 2024).

Climate change mitigation efforts are urgent and require multi-stakeholder collaboration involving the government, the private sector, civil society, and the scientific community (Finke et al., 2016; United Nations Development Program, 2024). A number of global initiatives have been undertaken to mitigate the impacts of climate change. For example, the United Nations Environment Programme (UNEP) has assisted more than 50 countries in rehabilitating 131,000 hectares of land and increasing climate adaptation capacity for more than 102,000 individuals and 131 institutions. Earthworm Foundation also contributes through collaborative work with various stakeholders to protect more than 241,081 hectares of forest, increase the resilience of nearly 6,000 farmers, and support more than 90 companies in implementing their sustainability policies (Earthworm Foundation, 2024).

At the policy level, the Paris Agreement is an important milestone for global cooperation in reducing greenhouse gas emissions and driving climate action. In addition, the ratification of the Sustainable Development Goals (SDGs) in 2015 also strengthened the global commitment to sustainable and environmentally friendly development (Freihat et al., 2024). One of the organizations that plays an important role in mainstreaming sustainability in the supply chain is Earthworm Foundation, a global non-profit organization headquartered in Switzerland. With more than 25 years of experience, Earthworm Foundation runs programs to strengthen farmers' resilience, implement regenerative agriculture, fight for the rights of indigenous peoples, improve labor rights, and drive supply chain transformation towards sustainability. The organization works in more than 15 countries, including Indonesia, and has partnered with more than 100 companies and donors in support of responsible sourcing and sustainable solutions.

One of Earthworm Foundation's work areas in Indonesia is Riau Province, which over the past two decades, has experienced massive deforestation. Global Forest Watch data shows that between 2001 and 2023, Riau lost about 54% of its tree cover, equivalent to 4.2 million hectares of forest (Global Forest Watch, 2024). Satellite imagery from Earthworm Foundation also shows the loss of 50,745 hectares of forest in the 2019–2023 period alone. This condition is exacerbated by economic pressures on local communities that still rely on land clearing for agriculture or logging as their main livelihood, as well as increased vulnerability to climate disasters such as floods, droughts, and erratic rainfall.

This phenomenon demonstrates the need for an integrated landscape approach to foster collaboration between stakeholders to create a balance between environmental conservation, commodity production, and community well-being sustainably. Therefore, this study aims to examine the contribution of Earthworm Foundation in building sustainable landscapes through its programs in Riau Province, as well as analyze the effectiveness of a multistakeholder approach in facing complex socio-environmental challenges.

MATERIALS AND METHODS

Research Design

Research design constitutes the overall strategy, including data collection, measurement, and analysis. The research design for this study is depicted in Figure 1, which outlines the key steps to address the research objectives, aiming to provide strategic recommendations for the implementation of Phase 2 (2026–2030) of the Riau Landscape Program.

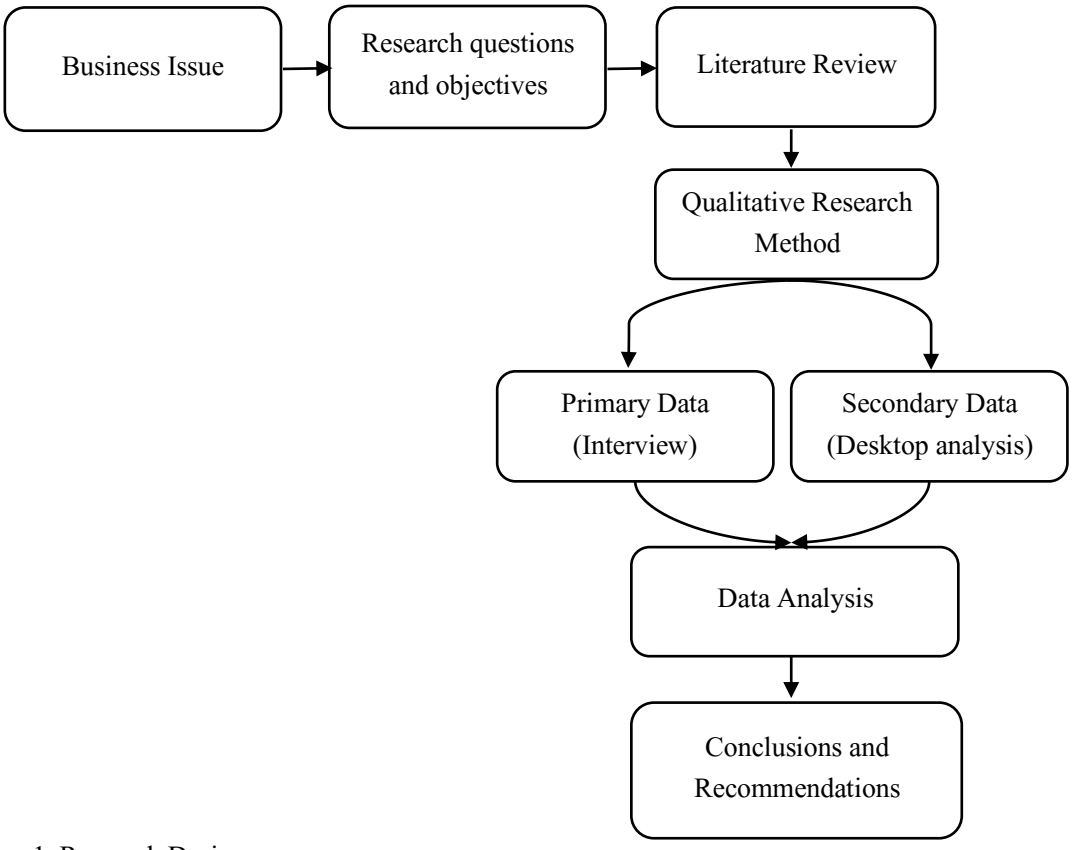

Figure 1. Research Design

The process begins with identifying the business issue faced by Earthworm Foundation regarding underachievement in the Riau landscape program. The formulation of research questions and objectives builds upon this identified problem. This research employs a qualitative approach, which is suitable for understanding individual or group perceptions of social or human problems (Creswell & Creswell, 2018). It captures experiences, perceptions, and behaviors, focusing on the "how" and "why" of a phenomenon (Tenny et al., 2025).

This approach provides deep insights into various qualitative factors influencing the implementation of the Riau Landscape Program (2021–2025), including stakeholder perspectives, relationships, motivations, and collaboration dynamics. The research will utilize semi-structured interviews with open-ended questions to promote flexible and interactive communication (Lamarque et al., 2011). Data will be collected through in-depth interviews, focus group discussions (FGDs), and document analysis. Data triangulation will be employed to ensure robustness and validity. Ethical considerations such as informed consent and data protection will also be maintained.

Data Collection Method

This study will collect both primary and secondary data to understand the various factors influencing the Riau Landscape Program's implementation. Primary data will be obtained through in-depth interviews and FGDs with different stakeholders of the Riau landscape program. In-depth interviews aim to uncover the underlying reasons and motivations behind stakeholder behaviors and preferences (Ajayi, 2023). The following are the targeted participants (Table 1):

Table 1. List of Interviewees

No	Position	Institution	Years in Organization
1	Operations Lead - Indonesia	Earthworm Foundation	2 years
2	Global Landscape Engagement Manager	Earthworm Foundation	3 years
3	Former Operations Lead - Indonesia	Earthworm Foundation	19 years
4	Impact Team	Earthworm Foundation	1.5 years
5	Client Relations Manager	Earthworm Foundation	3 years
6	Sustainability Manager	Client A	NA.

Focus Group Discussion (FGD)

FGDs will be conducted with 6–8 Earthworm Foundation staff representing Operations, Impact, Strategic Thematic, and Finance. Key questions include (Table 2):

Table 2. List of Potential Leading Questions for Focus Group Discussion

Category	Leading Questions
Success, challenges, and failures	What were the key successes, challenges, and failures associated with these initiatives?
Lessons learned and strategies	What are the lessons learned and recommendations for the implementation of the next phase?

Secondary Data

Secondary data will be collected through document analysis:

1. Regulatory Documents: National and global landscape-related regulations.
2. Corporate Sustainability Report: Client sustainability strategies and outcomes.
3. EF Reports: Case studies and project reports.
4. Literature: Research, policy briefs, and reports on landscape initiatives.

Data Analysis Method

Qualitative data analysis starts with data preparation (transcription and organization). Interviews and FGDs will be transcribed, coded, and analyzed using Atlas.ti to identify themes aligned with the research questions. Coding will focus on success factors, challenges, and lessons from Phase 1 of the Riau landscape program (2021–2025). Secondary data will be analyzed using document analysis to identify patterns, themes, and alignment with regulatory or strategic frameworks (Pathak et al., 2023). Thematic analysis by Braun & Clarke (2024), combined with data triangulation, will enhance reliability and provide a comprehensive understanding of stakeholder perspectives and program dynamics (Creswell & Creswell, 2018). This multi-method approach ensures that the findings are rich, valid, and grounded in real-world contexts, ultimately informing strategic recommendations for Phase 2 of the Riau Landscape Program.

RESULTS AND DISCUSSION

Main Theme 1: Program Design and Implementation

Earthworm Foundation started its operations in Riau Province in 2012 through a project focused on integrated forest management in collaboration with corporate partners. However, this project-based approach has limitations because it only highlights one specific commodity and region according to the interests of those partners. As time goes by and the experience of projects carried out in various regions of Indonesia increases, both Earthworm Foundation and its partner companies recognize the need for a strategic shift towards a cross-commodity and supply chain approach. This is driven by the understanding that complex problems in source areas cannot be effectively solved through separate, sectoral actions.

Since its official launch in 2020, Earthworm Foundation has recorded significant progress in the implementation of landscape approaches in Riau Province over the past four years. The main goal of landscape initiatives in Riau is to create a resilient landscape, which can be a model of success in balancing commodity production, forest conservation, sustainable livelihoods, and good social and workforce practices on a large scale. The program addresses the environmental and social challenges that arise from deforestation and land conversion for agriculture and plantations. During the four years of implementation, important

achievements have been made, as shown in the following figure:

Figure 2. Cumulative Achievements of the Riau Landscape Program (2021–2024)

Based on the data, the most significant achievements occurred in three main objectives: forest protection and restoration, strengthening farmers, and the welfare of workers and their families. On the other hand, the aspects of stakeholder support and community rights still require further efforts.

Although the TOC was developed collaboratively with the Indonesian team in early 2021, the document, including the logframe and MEL plan, is still considered to lack adequate practical guidance for implementation in the field. Ambiguity in the division of roles and responsibilities between teams is also an obstacle that leads to differences in interpretation, understanding, and expectations, which ultimately affect the allocation of resources and the prioritization of actions. Another challenge is how the program can realistically measure its impact on the supply chain, which is at the core of the Earthworm landscape approach.

On the other hand, the success of achieving the target so far is also influenced by several supporting factors, such as the availability of funding sources from various partners to support the implementation of landscape programs in Riau. The alignment between the program's focus and the interests of governments and donors, for example, on issues of forest protection, community livelihoods, and capacity building, also provides a competitive advantage for the organization. In addition, the iterative process in improving the internal team's work pattern also contributes to the achievement of program targets.

Earlier this year, the landscape team also conducted a beneficiary survey to assess the impact of interventions to strengthen the resilience of smallholder farmers and their livelihoods. The survey results show that this program has a positive impact, especially in increasing productivity, implementing better agricultural practices, and diversifying livelihood sources. GAP training for oil palm significantly improves farmers' skills in terms of fertilization, garden maintenance, and pest control, which overall impacts increased productivity. However, the survey also indicates the need for improvement in terms of long-term mentoring, financial support, and awareness of sustainable agricultural practices so that the benefits can continue to be felt optimally and sustainably.

Key Theme 2: Institutional and Policy Support

Institutional and policy support is a crucial aspect in the implementation of the Riau Landscape Program that is effective and sustainable. The program's five key objectives: stakeholder support, forest protection and restoration, farmer resilience, community rights, and workers and families require

close synergy with the government to ensure sustainable implementation (Octavia et al., 2022).

The activities carried out by this organization not only target environmental and social issues, but also respond to existing policy gaps. For example, in the Forest Protection and Restoration goal, one of the activities carried out is Participatory Land Use Planning (PLUP) in priority villages (Kopáček, 2021). PLUP is a collaborative process that involves various stakeholders in developing a fair and equitable land resource management plan. This process contributes to the identification and designation of areas for forest conservation, agriculture, and other land uses that support the well-being of local communities.

Nevertheless, spatial planning is a complex policy domain as it includes land mapping, biodiversity conservation, and resource management, as well as the prevention of social and tenure conflicts (Oliveira & Meyfroidt, 2021). Recent research in Riau shows that to ensure sustainability, this planning process needs to be integrated into existing regulatory frameworks, such as Village Regulations and Regional Spatial Plans (RTRW) (Rahmawati et al., 2023). This research also highlights that strong regulations at the village level are not always connected to policies at the sub-district, district, provincial, and national levels, so synchronization is crucial. These findings are in line with Earthworm Foundation's efforts to support the adoption of policies that mainstream forest conservation and smallholder resilience in public planning.

Although budget constraints are often the main reason for the lack of financial support from the government, some good practices are starting to emerge with Earthworm Foundation's assistance. Through a consistent approach, a number of local governments have begun to allocate budgets to support this initiative going forward. In addition, the Payment for Environmental Services (PES) mechanism from several donors has provided incentives to communities participating in forest conservation (Montoya-Zumaeta et al., 2021). This mechanism strengthens community collective action in protecting forests and preventing deforestation, and connects them to broader policy and financing frameworks.

In addition to the regulatory aspect, recognition of indigenous communities is also an important component (Reyes-García et al., 2022). Examples are the significant role of Ninik Mamak in Kampar Regency and the Talang Mamak community in Indragiri Hulu Regency (Faisal et al., 2023). Ninik Mamak has a great influence in decision-making, even exceeding the boundaries of forest areas, including in the practice of giving land to heirs. In contrast, the role of Talang Mamak focuses more on protected forests, with relatively little influence. These dynamics highlight the importance of integrating customary roles with formal legal rights in order to ensure clarity and prevent future disputes.

At the national level, the organization has established strategic engagement with various institutions, such as the Coordinating Ministry for Economic Affairs, the Oil Palm Plantation Fund Management Agency (BPDPKS), and the Environmental Fund Management Agency (BPDLH). This engagement reflects efforts to harmonize local strategies with national priorities. However, internal restructuring at Earthworm Foundation has led to a vacuum in the specialized functions that handle government relations, which has implications for the effectiveness of advocacy at the national level.

On the other hand, Earthworm Foundation is also active in supporting the implementation of the National/Regional Action Plan for Sustainable Oil Palm (RAN/RAD KSB), including in the Regional Implementation Team (TPD) and working groups that strengthen data, coordination, infrastructure, smallholder capacity, as well as plantation governance and conflict resolution. Assistance is also provided to farmer cooperatives to meet legal and administrative requirements to access replanting funds from the BPDLH scheme.

Despite positive achievements, the political dynamics after the 2024 government transition have led to policy uncertainty, changes in priorities, and personnel rotation, which can hinder the implementation of the program (Aguiar-Hernandez & Breetz, 2024). Potential delays, funding uncertainty, and difficulty in obtaining commitments are real risks. Therefore, strengthening long-term relationships with the government is urgent to ensure the sustainability of this initiative.

Key Theme 3: Multi-Stakeholder Engagement and Collaboration

The landscape approach emphasizes the importance of multistakeholder engagement to create impact through collective action. Interviews with Earthworm Foundation staff showed consistency in the emphasis on cross-stakeholder partnerships, particularly at the grassroots level, as key to the program's success. In Riau, Earthworm Foundation establishes partnerships with various internal and external stakeholders who have diverse needs and expectations (Masuda et al., 2022). Based on the organization's annual report, project documents, interviews, and official website, the following are the key stakeholders in the program:

Table 3. Stakeholders of The Riau Landscape Program

Internal Stakeholders	- Executive Team – HQ - Landscape and Global Thematic Lead – HQ - Indonesia Leadership Team - Project Managers
External Stakeholders	- Financiers/ funders: LVMH, Nestlé, Reckitt, APRIL, Colgate-Palmolive, Givaudan, Target, PZ Cussons, and Walmart Foundation. - Regional, District, and Village Government - Schools and Universities: Bogor Agricultural Institute (IPB), Riau University - Civil Society: Sulu-Sulu Foundation - Association: The Indonesian Palm Oil Association (GAPKI). - Customary and Community Leaders: Ninik Mamak and Talang Mamak - Smallholders, including forest farmer groups (KTH) - Local communities

Earthworm Foundation's field-based approach and immediate presence in the target area are key strengths. Close relationships with local communities have proven crucial in building trust and accelerating program achievements.

One concrete example of multi-stakeholder collaboration is the preparation of the Sustainable Oil Palm Area Action Plan (RAD-KSB) in Indragiri Hulu and Kampar Regencies (Permatasari et al., 2024). In Indragiri Hulu, the organization assisted in the preparation of the Decree of the Head of Service to form the TPD RAD-KSB and the draft regent regulation (PERBUP). Meanwhile, in Kampar, the TPD RAD-KSB Decree and the Decree of the Team Secretariat from the Plantation and Livestock Service have been issued. Currently, the process has entered the implementation stage.

While cross-actor collaboration shows promising developments, engagement with other development partners, such as NGOs, civil society organizations, and local communities, still needs to be expanded (Effendi et al., 2025). Some stakeholders at the headquarters level noted that funders hope for increased coordination between agencies to avoid duplication of programs that often occur due to weak inter-agency synergy in the same region.

Key Theme 4: Internal Governance and Organizational Capacity

Internal Governance and Coordination remain a critical factor in ensuring that the landscape program can deliver its goals effectively. Previous research by Sayer et al. (2015) also mentioned that this factor is one of the preconditions for a successful landscape approach. Good governance constitutes all processes of governing, the institutions, processes, and practices that regulate and manage how common issues are decided and agreed upon in an entity (Office of the United Nations High Commissioner for Human Rights, 2024).

Earthworm Foundation’s Indonesia team is mainly responsible for delivering the Riau landscape program, with the support from the global landscape team headquartered in Nyon, Switzerland. The global landscape team oversees landscape implementation and ensures quality delivery of all the landscape programs globally (Singh et al., 2024). Meanwhile, the Operations lead is responsible of such tasks across all the landscape programs implemented in Indonesia.

Furthermore, the Landscape team, positioned in Riau, holds the primary responsibility for delivering all groundwork activities and ensuring high-quality implementation across the five assisted districts. The team is also supported by an organizational structure, managing work relationships among officers, coordinators, managerial levels, and the technical and support teams, based in the Jakarta and Semarang offices.

These findings highlight gaps in internal governance and matrix structures, which often cause misunderstandings and misaligned strategies in implementing the Riau landscape program. It further underscores the need for greater clarity and high-level direction in aligning roles, governance, and decision-making structures, cascading from headquarters to the country level. Despite these constraints, the organization has successfully applied adaptive management practices, gradually improving its initial siloed work between teams and departments, leading to a more organized work structure and better clarity of roles and responsibilities in supporting the Riau landscape program.

As Earthworm Foundation prepares to develop its strategic framework for Phase 2 of the Riau landscape program, the organization needs to build on a foundation established in Phase 1, while moving forward to improve several key aspects. These include enhanced alignment and clearer segregation of roles and responsibilities across different levels to foster collaborative actions and break down silos. In addition, internal processes need to be mainstreamed to effectively address the contextual needs of the program, coupled with strengthening project management capacity, and enhancing robust internal control systems to support the organization's evolving needs over the next five years (Braunschweiger & Pütz, 2021).

Additionally, the organization must ensure that resource allocation, particularly funding, is sufficient to support the realization of the Riau Landscape vision in Phase 2, with strong alignment and relevance to the supply chain approach.

Business Solution

Based on the analysis above, this section discusses business solutions using the conceptual framework that incorporates the foundational Stakeholder theory (Donaldson & Preston, 1995; Freeman, 2010) and the Theory of Change for a successful landscape approach suggested by Sayer et al. (2013) as illustrated below:

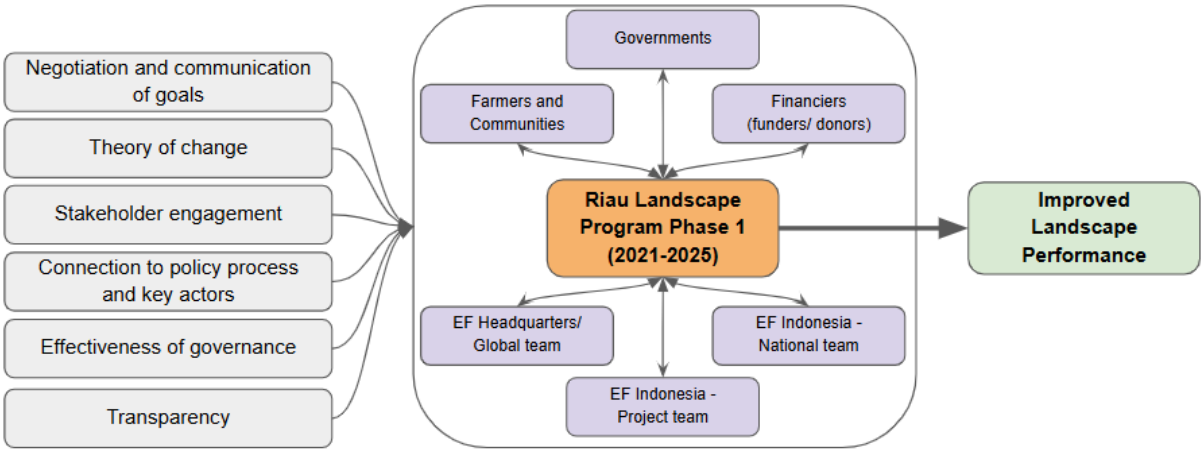

Figure 3. A Conceptual Framework for Advancing Landscape Approaches in Riau

To improve the Riau landscape approach over the next five years, the following presents strategic recommendations from interviews and discussions with Earthworm Foundation's staff and key stakeholders in Riau province, as well as insights from the research conducted by Reed et al. (2016) which outlines five solutions for the effective delivery of landscape approaches, known as the five E's, as described below:

Table 4. Five Strategic Recommendations for Enhancing the Effectiveness of the Riau Landscape Approach in Phase 2 (Adapted from the Framework developed by Reed et al. (2016))

No	Key Aspect	Proposed Improvements
1	Evaluate Progress	Refine program design and target setting with clear metrics for Phase 2 based on the evaluation and learnings from Phase 1, ensuring the process is collaborative and context-based, and aligned with the organizational strategy.
2	Establish Good Governance	a. Improve the RACI matrix and clarify decision-making structures across different levels to support effective implementation. b. Strengthen internal control and MEL systems for enhanced program delivery. c. Regular capacity building and refreshers for internal staff as necessary. d. Enhance funding mechanisms to diversify funding sources and tie directly with supply chain relevance for sustainability.
3	Evolve from Panacea Solutions	Nurture a learning organization approach, building on the foundation in Phase 1, continuously improving implementation as needed, while ensuring supply-chain alignment and a phased, milestone-based delivery.
4	Engage Multiple Stakeholders	a. Strengthen multi-stakeholders' support and foster collaboration to maximize impact and avoid overlapping initiatives among key actors. b. Amplify policy influence and link field-level practices to regional and national policy to increase legitimacy and support. c. Expand partnerships with local organizations to support field-level implementation and deliver impact at scale in Riau province.
5	Embrace Dynamic Process	a. Adaptive program delivery, with realistic targets, solid risk mitigation, and flexible implementation strategies. b. The a need for an iterative learning process to enhance program delivery based on evolving conditions and stakeholders' needs and priorities.

Emerging Themes: Key Findings from Phase 1 of the Riau Landscape Initiative

Building on the data collected through in-depth interviews, participatory workshops, and document analysis, four major themes emerged that encapsulate the key drivers, challenges, and enablers in the implementation of landscape approaches in Riau Province. These themes are aligned with the six enabling conditions articulated in the Theory of Change by Meyer et al. (2022) and highlight how these conditions are realized or constrained within the local context. Each theme reflects not only conceptual alignment with landscape governance principles but also contextual adaptation shaped by the socio-political, institutional, and ecological dynamics specific to Riau.

Design and Delivery of Landscape Interventions

Findings reveal that while the initial program design was guided by sound landscape principles, the operationalization of these concepts varied across geographies and stakeholder groups. In some pilot sites, program delivery was more interventionist and externally driven, whereas others demonstrated higher levels of local ownership. A key insight was the importance of co-design processes that integrate local knowledge systems, cultural values, and community priorities into program planning and implementation (Mugari et

al., 2025). However, limitations in technical capacity and inconsistent implementation timelines often undermined the continuity and perceived legitimacy of the program at the community level.

Institutional and Policy Support

The landscape approach benefited from broad political will at the provincial level, particularly in the context of sustainable commodity production and forest conservation. However, institutional fragmentation, characterized by overlapping mandates, siloed programs, and unclear jurisdictional authority, frequently hindered policy coherence and cross-sectoral collaboration (Harvey et al., 2024). The research highlighted the need for clearer institutional anchoring and alignment between district-level planning processes and provincial or national-level policy frameworks. Successful cases pointed to the utility of formalized Memorandums of Understanding (MoUs) and integrated working groups as mechanisms to improve coordination.

Multi-Stakeholder Engagement and Collaboration

Engagement with stakeholders, including communities, private sector actors, and government institutions, was central to the program's implementation strategy (Batidzirai et al., 2021). However, the nature and depth of collaboration varied significantly. In many instances, engagement was consultative rather than truly participatory, leading to a disconnect between stakeholder expectations and program outcomes. Furthermore, power asymmetries and trust deficits, particularly between communities and corporate actors, posed significant barriers to sustained collaboration. Notwithstanding these challenges, the research identified several enabling factors for effective engagement, including the presence of trusted local intermediaries, long-term relationship-building efforts, and inclusive dialogue spaces.

Internal Governance and Organizational Capacity

Internally, the initiative demonstrated commitment to adaptive management and learning (Sayer et al., 2021). However, several capacity gaps were identified that limited the ability of implementing organizations to respond dynamically to changing field conditions. These included inconsistent knowledge management practices, a lack of role clarity among staff, and limited integration of Monitoring, Evaluation, and Learning (MEL) systems. Additionally, turnover among key personnel disrupted institutional memory and affected the continuity of program implementation (Menzies, 2023). Strengthening internal governance mechanisms such as clear decision-making protocols, competency-based training, and structured accountability frameworks was highlighted as essential for improving overall program effectiveness.

CONCLUSION

This study aims to analyze the successes, challenges, and important lessons from the implementation of Phase 1 (2021–2025) of the Riau Landscape Program by Earthworm Foundation, as well as provide strategic recommendations to support the development of the strategic framework in Phase 2 starting in 2026. Based on the findings and analysis of primary and secondary data, this study identifies four main themes: (1) Program Design and Delivery, which shows success in forest protection and smallholder empowerment, but faces constraints on stakeholder support and community rights due to inconsistent interpretations of the Theory of Change, logframe, and MEL plan; (2) Institutional and Policy Support, which has been successful in integrating PLUP and NDPE principles into policy, but still faces obstacles in budget allocation and fragmented policy frameworks; (3) Multi-stakeholder Engagement and Collaboration, which stands out in grassroots collaboration, but needs to strengthen synergies with NGOs, CSOs, and national stakeholders to avoid duplication of programs; and (4) Internal Governance and Organizational Capacity, which has adopted adaptive management, but still faces constraints in governance structures, decision-making clarity, and internal capacity.

As a recommendation for Phase 2 (2026–2030), five strategies based on the Five E's framework for the effective landscape approaches by Reed et al. (2016) are suggested: (1) Evaluate Progress, by conducting a thorough evaluation of the implementation of Phase 1 to design Phase 2; (2) Establish Good Governance, through clarity of roles and responsibilities, strengthening internal control systems and MEL processes, and developing diversified funding models; (3) Evolve from Panacea Solutions, by encouraging continuous

learning and a phased implementation approach; (4) Engage Multiple Stakeholders, by expanding collaboration and linking field practices with regional and national policies to strengthen institutional legitimacy and support; and (5) Embrace Dynamic Process, by supporting flexibility in program implementation that is adaptive to changing conditions and stakeholder needs. In addition, further research is suggested to explore the impact of landscape programs on corporate supply chains and the potential for innovative financing, such as blended finance, green bonds, impact investment, and carbon credits in the Indonesian context.

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