

Food, Land, and Water (FLW) Policies and Institutions in Lao PDR

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September 2025



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Acknowledgements

This work was conducted under the CGIAR Initiative on National Policies and Strategies (NPS) and finalized with support from the CGIAR Policy Innovations Program. We would like to thank all funders who supported this research through their contributions to the CGIAR Trust Fund (www.cgiar.org/funders).

CGIAR launched NPS with national and international partners to build policy coherence, respond to crises and integrate policy tools at national and subnational levels in six countries in Africa, Asia and Latin America. NPS was ended in December 2024 and was succeeded by the CGIAR Policy Innovations Program.

The International Water Management Institute (IWMI) prepared this publication based on literature reviews and key informant interviews (KIIs), in addition to a consultation with the government partners to finalise the study concept and select policies for the study. We appreciated all key informants and their respective institutions for participating in the interviews and sharing insights.

We would like to thank the Policy Think Tank of the National Agriculture and Forestry Research Institute for their cooperation support to the study. We acknowledge valuable and thoughtful contributions of all the key informants from the public sector, development partners, and farmer organizations for sharing their knowledge, experiences, and insights during the KIIs with the research team.

Citation

Inphonephong, S.; Dubois, M.; Kotchofa, P. 2025. *Food, Land, and Water (FLW) policies and institutions in Lao PDR*. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Policy Innovations Program. 48p.

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This publication has been prepared as an output of the CGIAR Policy Innovations Program and has not been independently peer reviewed. Responsibility for editing, proofreading, and layout, opinions expressed, and any possible errors lies with the authors and not the institutions involved.

Back cover photo: Souphalack Inphonephong, IWMI

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Executive summary

Introduction

The *Flagship Report on Food, Land and Water (FLW) Policies and Institutions in Lao PDR* examines the governance and policy coherence of FLW systems in Lao PDR. Given the interconnected nature of food security, land use, and water resource management, policy coherence is crucial in mitigating trade-offs and ensuring sustainable development. Policymakers must align sectoral strategies to balance economic growth, environmental sustainability, and social equity. However, achieving this balance remains a challenge due to fragmented government structures, sectoral silos, and insufficient implementation mechanisms.

Lao PDR faces significant challenges in maintaining its FLW systems. Rapid economic growth, shifting land-use patterns, and climate changes pressures necessitate policies that support resilience and sustainability. However, existing policies are often formulated and implemented in isolation, leading to inefficiencies and unintended trade-offs. This report evaluates the coherence of five key policies governing FLW systems to determine their alignment, effectiveness, and impact on national development goals.

To address these challenges, the study applied a policy coherence framework to assess alignment across three key dimensions: i) horizontal coherence (cross-sector integration), ii) vertical coherence (alignment between national and local levels), and iii) normative coherence (consistency with broader development objectives). The analysis identifies gaps and opportunities to improve governance, stakeholder engagement, and policy effectiveness.

Methodology

Different methods of qualitative research were employed, integrating a comprehensive desk review and key informant interviews (KIIs). The desk review systematically analysed national policies, legal frameworks, ministerial reports, and international assessments related to FLW governance. KII's were held with 24 policymakers, government officials, researchers, and representatives from international organisations and NGOs. These interviews provided insights into policy design, implementation challenges, and institutional coordination.

Two analytical frameworks were used: the Policies and Institutional Landscapes Analysis Framework (PILA) to examine governance structures and institutional interactions, and the Policy Coherence Analysis Framework to evaluate trade-offs and synergies between policies.

The five key FLW policies assessed include:

1. National Plan of Action on Nutrition (NPAN) – focuses on reducing malnutrition and ensuring food security.
2. Green and Sustainable Agricultural Framework (GSAF) – promotes sustainable farming and agroforestry practices.
3. Decree on Watershed Management (DWM) – established regulations for water resource conservation.
4. Master Plan on Land Allocation (MPLA) – guides land use zoning and management.
5. National Agro-Biodiversity Programmes and Action Plan (NAPB) – aims to conserve agrobiodiversity.

Through this approach, the study provides an evidence-based assessment of FLW policy coherence in Lao PDR, identifying critical governance gaps and offering recommendations for enhancing policy alignment and implementation.

Results

Institutional and Governance Mapping

Lao PDR's policy landscape is shaped by centralised governance under the Lao People's Revolutionary Party (LPRP), with ministries responsible for sector-specific policies. Despite some inter-agency collaboration, policies are often formulated independently, leading to gaps in coordination and implementation. KIIs revealed that stakeholders frequently operate in silos, resulting in inefficiencies and conflicts over resource allocation.

Policy Coherence Analysis

The coherence analysis examined three dimensions:

1. **Horizontal Coherence:** While some policies reference each other, there is limited practical coordination. For example, while the MPLA prioritises land allocation for forestry and agriculture, its implementation often clashes with watershed objectives under the DWM. Similarly, NPAN promotes sustainable food production, yet lacks strong linkages with land and water management policies. Additionally, the expansion of commercial agriculture under GSAF does not always align with biodiversity conservation goals under NABP, leading to potential trade-offs between economic and environmental policies.
2. **Normative Coherence:** Policies align with national development goals. However, gaps remain, particularly in integrating gender and social inclusion. For example, while NPAN and GSAF emphasise food security and poverty reduction, they lack comprehensive strategies to address systemic barriers faced by women, youth, and marginalised communities. Furthermore, while policies recognise the importance of climate adaptation, few provide concrete mechanisms for integrating climate resilience across FLW governance structures.
3. **Vertical Coherence:** There is significant disconnect between national policies and local implementation. Ministries develop policies, but district and provincial authorities often lack the financial and technical resources to execute them effectively. For instance, while the DWM aims to regulate water use for agriculture and hydropower, local enforcement remains weak due to insufficient coordination and capacity.

Discussion

Key Implementation Challenges

Across coherence dimensions, several key implementation challenges were identified:

- **Limited Cross-Sectoral Coordination:** The lack of structured collaboration between ministries and agencies leads to inefficiencies and policy conflicts. For example, agricultural expansion initiatives often disregard water conservation measures, exacerbating resource competition.
- **Weak Local Implementation Capacity:** Policies designed at the national level are not always adapted to local contexts, leading to inefficient execution. Rural districts often lack the necessary infrastructure, financial support, and expertise to implement national strategies.
- **Stakeholder Power Imbalances:** Many policies are heavily influenced by donor funding and external organisations, limiting local ownership and long-term sustainability. Short-term development projects frequently fail to integrate into broader development frameworks, leading to fragmented interventions.
- **Lack of Evidence-Based Policymaking:** The absence of robust monitoring and evaluation mechanisms hinders effective policy adaptation and learning. Without comprehensive data, policymakers struggle to measure progress and make informed adjustments.

Recommendations for Policy Coherence

To enhance policy coherence and governance in Lao PDR FLW systems, the following recommendations are proposed:

- **Enhance Cross-Sectoral Coordination:** Establish inter-ministerial committees to oversee FLW policy integration and resolve conflicts. Improved communication channels between agencies can facilitate data sharing and joint planning.
- **Strengthen Local Implementation Mechanisms:** Provide financial and technical resources to provincial and district authorities to improve policy execution. Capacity-building programs should focus on training local officials and community stakeholders.
- **Improve Stakeholder Engagement:** Create inclusive policymaking processes that involve farmers, local communities, and the private sector. Ensuring that affected populations have a voice in policy design can enhance effectiveness and acceptance.
- **Invest in Evidence-Based Policymaking:** Develop a national database to track FLW policy implementation, collect disaggregated data, and monitor progress. Strengthening research institutions can provide decision-makers with timely and relevant insights.
- **Address Power Dynamics in Decision-Making:** Shift towards a locally driven development model by reducing dependency on short-term donor interventions and ensuring policies are aligned with long-term national priorities.

Conclusion

Achieving greater policy coherence in Lao PDR FLW systems is essential for sustainable development. Strengthening governance structures, fostering cross-sectoral collaboration, and investing in local implementation capacity will be key to overcoming existing challenges. Policymakers must adopt a systems-based approach to FLW governance, integrating food security, land use, and water management into a unified strategy.

Addressing the identified gaps is critical not only for policy alignment but also for ensuring that Lao PDR's FLW systems can support a growing population while adapting to the impacts of climate change. By enhancing coordination, promoting inclusive governance, and leveraging data-driven decision making, the country can build a more resilient and sustainable future. A well-integrated FLW policy framework will contribute significantly to Lao PDR's broader development goals, aligning economic development, environmental, and social priorities for long-term resilience.

1. Introduction

Policymakers, particularly in low-income countries, face complex challenges due to the interconnected nature of agriculture, the environment, climate change, nutrition, and society within food, land, and water (FLW) systems (Khatri et al. 2024). Policymakers must work to transform these systems at both the national and local level to make them more resilient. This transformation is necessary to meet the increasing demand for food, reduce the inefficient use of resources, and address the impacts of climate change. However, there is limited evidence on how governance policies for FLW systems can create systemic impacts, particularly in achieving food and nutrition targets (Sanchez et al. 2024).

Policy development for FLW systems is complex, shaped by an array of economic, environmental, political, and cultural factors. When policies are developed separately without coordination they can create conflicting resource priorities, such as competition between agricultural expansion and water conservation, reducing their overall impact (Dombrowsky et al. 2022). To ensure effective and coherent national development policies and strategies, it is crucial to assess how well FLW policies across sectors and institutional levels (e.g., national versus local) align (Picciotto 2005). This will help build resilient systems and resolve any conflicts between policies. Creating coherent policies is key to supporting coordinated actions across sectors, managing trade-offs, and setting priorities to achieving Sustainable Development Goals (SDGs) (Viklund Rundgren, 2023).

The policy coherence framework is a concept used to ensure that policies across different sectors and levels of governance work together towards common goals, avoiding conflicts and promoting synergies. The framework focuses on evaluating how policies are aligned to maximise their collective impact (OECD 2024). By applying the framework, policymakers can identify gaps, reduce redundancies, and enhance coordination across sectors. This can lead to more effective and sustainable policy outcomes, ensuring that interventions reinforce rather than undermine one another, ultimately improving impact and resilience (Browne et al. 2023).

In this report, we apply the policy coherence framework in the Lao People's Democratic Republic (PDR). Lao PDR is a country where agriculture remains central to livelihoods, with over 80% of the population engaged in the sector (Phompila et al. 2022). However, the country faces significant challenges, including macroeconomic instability, climate change, and external geopolitical pressures, all of which threaten food security, nutrition, and sustainable land and water management (Howe 2023; Maniphousay 2022). Policies addressing these issues are often developed in isolation, leading to conflicts between agricultural expansion, environmental sustainability, and economic development (Lopes 2024). By applying the framework, we can assess how well FLW policies across different sectors and governance levels align to address these challenges.

Strengthening policy coherence in Laos can help mitigate trade-offs such as balancing foreign agribusiness investments with smallholder food production, or irrigation expansion with fisheries conservation, ensuring that policies work together to enhance food security, climate resilience, and sustainable development. This approach is essential for managing Lao's natural resources effectively, improving policy coordination, and supporting the country's development goals (Sanchez et al. 2024).

This report aims to provide an overview of policy coherence in the FLW sectors in Lao PDR by considering their policy design, implementation, gaps, challenges, and short- and long-term impacts on national food systems and strategic development plans. The report focuses on five key FLW policies within Lao PDR including: i) National Plan of Action on Nutrition (NPAN), ii) Green and Sustainable Agricultural Framework (GSAF); iii) Decree on Watershed Management (DWM); iv) Master Plan on Land Allocation (MPLA), and v) National Agro-Biodiversity Programmes and Action Plan (NAPB). By evaluating these policies through the

lens of policy coherence, we aim to identify how well they align with each other and with broader national development goals, particularly those related to food security, livelihoods, social inclusion, climate resilience, and sustainable environments.

To achieve this aim, the report pursues the following research objectives:

1. Deepen the understanding of the policy coherence framework and its application to FLW sections in Lao PDR.
2. Analyse the coherence of key FLW policies across three dimensions: vertical coherence, horizontal coherence, and normative coherence.
3. Assess the design, implementation, gaps, challenges, and impacts of these policies on national FLW systems.
4. Identify pathways to enhance policy coherence and capacity within Lao PDR to improve the effective delivery of food and water security.
5. Provide guidance for policymakers to support the transformation of FLW systems for greater sustainability and resilience.

2. Methodology

This study employs different methods of qualitative research to assess the governance and policy landscape of FLW systems in Lao PDR. Below, we outline the national context of FLW in Lao, highlighting key socioeconomic and environmental challenges influencing FLW governance. We then describe the two analytical frameworks used to answer our research questions. These included: 1) the Policies and Institutional Landscapes Analysis Framework (PILA), to examine stakeholder dynamics and institutional structures, and 2) the Policy Coherence Analysis Framework, to evaluate alignment and trade-offs within and across policies. Prior to describing the data collection process, we describe how focus group discussions were used to select key FLW policies for inclusion within the study. We then provide a detailed description of data collection (i.e., desk review and key informant interviews) and analysis methods.

2.1. Lao PDR Context

Lao PDR faces complex and interconnected challenges across its food, land, and water (FLW) systems. Macroeconomic instability, such as the rapid depreciation of the Lao Kip, and external factors, including the Russian-Ukraine conflict, climate change, have intensified social inequalities and constrained access to essential resources (WB 2023). These pressures have disrupted food security, equitable access to water and farmland, slowing progress toward national development targets and the country's potential graduation from Least Developed Country (LDC) status by 2026 (Southichack 2017).

Although Lao PDR's economy is primarily driven by the service sector (37% of GDP), followed by industry (34%), agriculture remains fundamental, employing over 80% of the labour force (Phompila et al. 2022). Rice dominates agricultural production, occupying 80% of arable land (Bestari et al. 2006). However, economic development, demographic changes, and foreign investments are placing increasing pressure on land and water resources, creating competing demands across sectors (Howe 2023).

Foreign investments have contributed to significant land-use transformations. Large-scale land concessions, such as Chinese rubber plantations in Nambak District, have reshaped local landscapes, bringing both economic opportunities and environmental risks (Friis et al. 2016). These shifts in land tenure and resource allocation have direct implications for FLW policies, requiring careful governance to balance economic growth with sustainable livelihoods and environmental conservation (Kenney-Lazar 2023).

Water governance presents another major challenge (Pavelic et al. 2023). Unequal distribution, weak regulatory frameworks for integrated water resources management, and inadequate enforcement of water rights have created inefficiencies and conflicts over agricultural water use. Without coordinated policy action, fragmented water governance will continue to undermine the resilience of FLW systems (McCartney and Brunner 2021).

To address these challenges, the Lao PDR government has introduced several policies promoting agroecology, agrobiodiversity, and sustainable agriculture. National strategies such as the National Green Growth Strategy 2030, the 10-Year Agriculture Development Strategy (2016–2025), and the 8th and 9th National Socio-Economic Development Plans (NSED) (2016–2020 and 2021–2025) seek to align economic development with sustainability goals. These policies support SDG2 (zero hunger), SDG12 (sustainable consumption and production), and SDG13 (climate action). However, progress remains slow due to external shocks such as climate variability, the COVID-19 pandemic, and ongoing geopolitical tensions (Sanchez et al. 2024).

Despite these efforts, achieving policy coherence remains a challenge. FLW systems involve competing priorities across multiple sectors, creating trade-offs that must be carefully managed (Khatri et al. 2024). At the implementation stage, the challenge of reconciling short-term economic needs with long-term ecosystem sustainability is particularly pronounced (Foley et al. 2005). Without coherent FLW policies, resource depletion, environmental degradation, and rural livelihood vulnerabilities will persist. Strengthening integrated governance in land and water management is therefore essential to ensuring sustainable food production and long-term resilience (FAO 2021).

2.2. Conceptual Frameworks

This study employs two complementary analytical frameworks to assess the governance and policy landscapes of FLW in Lao PDR: 1) **Policies and Institutional Landscapes Analysis Framework (PILA)** (Ostrom et al. 2005) – used to examine the broader policy environment, stakeholder dynamics, and institutional structures that shape FLW governance. 2) **Policy Coherence Analysis Framework (REF)** – applied to assess the alignment, contradictions, and trade-offs within and across policies at different governance levels.

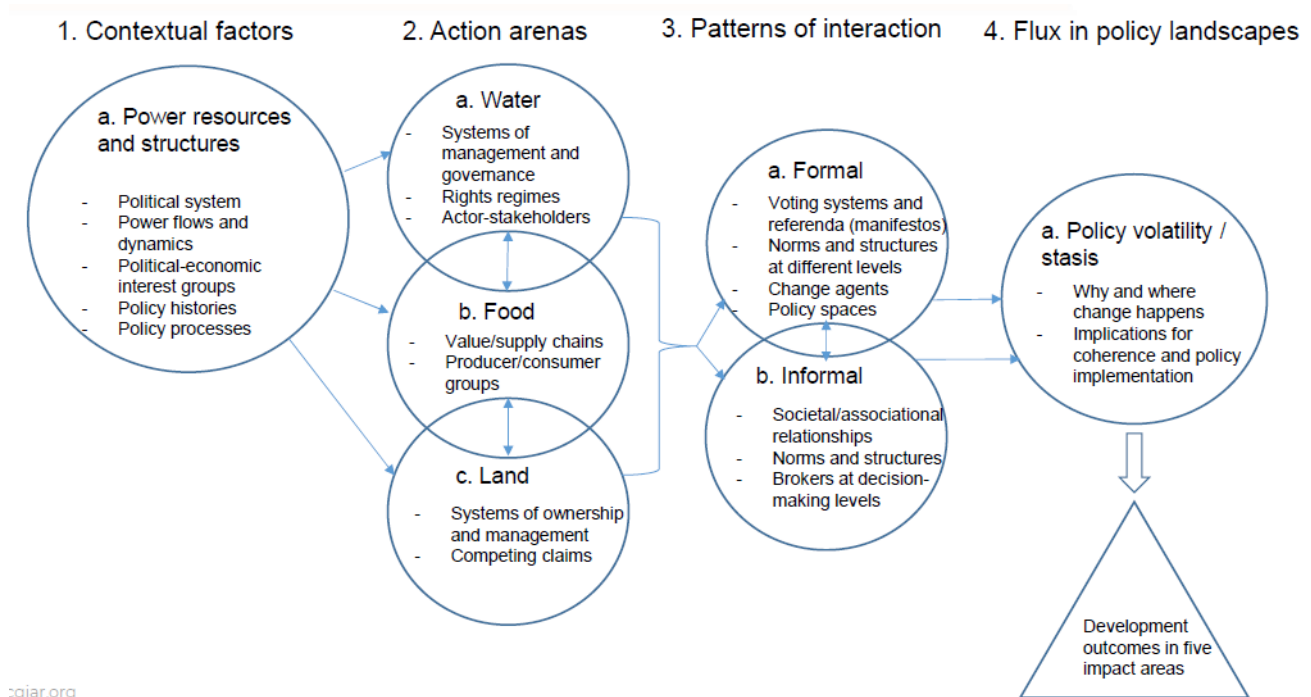
2.2.1. Policies and Institutional Landscape Analysis

The PILA framework provides a structured approach to understanding how policies are formulated, implemented, and influenced by institutional and stakeholder dynamics. It is particularly useful for analysing why policies evolve in a certain direction and identifying entry points for strengthening policy processes.

To apply the PILA framework, this study follows the Ostrom et al. (2007) (Figure 1) governance framework, which includes four key components:

- **Context:** The broader institutional, political, and socioeconomic setting influencing policy development.
- **Action Arenas:** The interactions among policymakers, institutions, civil society, and private sector actors.
- **Patterns of Interaction:** The negotiation, collaboration, or conflict among stakeholders within policy processes.

Figure 1: Ostrom et al.'s (2007) policies and institutional analysis framework.



- **Policy Landscapes:** The overarching policy environment, including key barriers and opportunities for improving governance.

Analysis of these components allowed for a holistic understanding of FLW governance, highlighting institutional challenges, stakeholder power imbalances, and potential pathways for policy improvement. The application of this framework involved a desk review to examine existing research on FLW governance in Lao PDR, and key informant interviews engaging policymakers, government agencies, and sectoral experts to capture perspectives on policy processes (see section 2.4).

2.2.2. Policy Coherence Analysis

The Policy Coherence Analysis Framework (REF) was used to evaluate whether different policies within the FLW sector align with or contradict each other. The analysis focused on two dimensions of horizontal and normative coherence:

- **Horizontal Coherence:** Evaluates whether policies within the same governance level complement or contradict each other.
- **Normative Coherence:** Examines whether policies achieve their intended outcomes in key development areas.
- **Vertical Coherence:** Examines whether policy implementation is aligned at the national and local level.

To conduct this analysis, the study firstly assessed horizontal coherence to investigate how FLW policies were designed to align with or complement other policies in relation to their focus on food, water, and land systems. This involved a desk review of policy documents, objectives, and intended impact areas. To assess normative coherence, which evaluated if policies had their intended effects or potential consequences on key development areas including: i) food security and nutrition, ii) poverty reduction and livelihoods, iii) gender, youth and social inclusion, iv) climate adaptation and resilience, and v) environmental health and biodiversity. Key informant interviews were held with a range of appropriate stakeholders (see section 2.4).

2.3. FLW Policy Selection

Given the large number of FLW policies in Lao PDR, a prioritization and selection process were employed to determine which policies would be included in the coherence analysis. This process was essential to ensure that the policies selected were not only relevant but also impactful and aligned with the study’s objectives. The selection process was guided by the criteria listed in Table 1.

Table 1: The criteria used to select FLW policies for inclusion in the policy coherence analysis.

| No | Criteria | Description |
|----|---------------------------|---------------------------------------------------------------------------------------------|
| 1 | Multidimensionality | Combining food, land, and water systems |
| 2 | Institutional plurality | Involvement of multiple institutions, organisations, or stakeholders from different sectors |
| 3 | Potential impact | Spanning several impact areas |
| 4 | Breadth and depth | Impacts will be extensive, especially on development outcomes |
| 5 | Geographical scope | Applied across the entirety of Lao PDR |
| 6 | Timeframe | Policies have existed and emerged in the last 5 years |
| 7 | Institutional involvement | Involvement of national stakeholders and other initiatives in policy prioritization. |

To meet Criteria 7 (institutional involvement), a focus group discussion workshop was held in, Vientiane, the capital of Lao PDR, in April 2024. The workshop involved government officials and other key stakeholders. A participatory approach was employed to ensure broad

stakeholder involvement. While the primary objective of the workshop was to establish the current FLW policy landscape and identify key policies, the discussions also focused on identifying the main challenges faced in FLW policy implementation, as well as exploring opportunities for improved policy coherence and strengthening inter-institutional collaboration.

The output of the workshop led to the identification of five policies to be included in the policy coherence analysis. These policies included:

- National Plan of Action on Nutrition (NPAN)
- Green and Sustainable Agricultural Framework (GSAF)
- Decree on Watershed Management (DWM)
- Master Plan on Land Allocation (MPLA)
- National Agro-Biodiversity Programmes and Action Plan (NAPB)

2.4. Data Collection

2.4.1. Desk Review

A comprehensive desk review was conducted to examine FLW policies in Lao PDR. This review aimed to develop a broad understanding of the national and local policy landscape, including how different stakeholders engage in advancing national strategic development goals. The review covered a wide range of published and grey literature, including policy documents, reports, and outcomes from seminars and workshops. These sources provided insight into policy design, stakeholder involvement, implementation challenges and policy impacts and externalities.

2.4.2. Key Informant Interviews (KIIs)

A participatory, stakeholder-oriented approach was used to conduct KIIs. The interviews were conducted online and in person from September to October 2023 by International Water Management Institute (IWMI) research staff. The interviews were conducted with 24 key informants, 5 of whom were women. Interviewees included government officials from major ministries related to FLW systems, researchers, international development partners, universities, academic faculties, and farmer representatives. Interviewed government officials comprised individuals who oversaw policy formulation and management in relevant ministries, including the Ministry of Agriculture and Forestry (MAF), the Ministry of Natural Resources and Environment (MONRE), and the Ministry of Health (MOH). Kindly note that MAF and MONRE has merged into the Ministry of Agriculture and Environment in March 2025.

KIIs were conducted with two goals. First, collect data on how policies are formulated, implemented, and influenced by institutional and stakeholder dynamics (i.e., policies and institutional landscape analysis). Second, collect data on whether policies within the same governance level complement or contradict each other and if policies achieve their intended outcomes in key development areas (i.e., policy coherence analysis). For each FLW policy (n=5), 5 major open-ended questions were discussed. These focused on the context, formulation, potential externalities, gender perspective, and impact areas in alignment with national strategic development plans and the SDGs. The questions used in KIIs are listed in Appendix 1.

2.5. Data Analysis

2.5.1. Policies and Institutional Landscape Analysis

The findings from the desk review were applied to the PILA framework (Ostrom et al. 2007), examining the broader institutional and governance landscape influencing FLW policy implementation. This framework facilitated an analysis of the policy context, action arenas, patterns of interaction, and policy landscapes.

2.5.2. Policy Coherence Analysis

Policy coherence analysis comprised desk review and KII results to assess alignment, contradictions, and trade-offs within and across FLW policies at different levels of governance. This analysis followed a structured approach. First, desk review documents and KII transcripts were screened and data relevant to horizontal and normative coherence were extracted. For horizontal coherence, this included information on how each policy addressed food, water, and land systems. For normative coherence, this included information on how each policy addressed national strategic development plan goals (i.e., i) food security and nutrition, ii) poverty reduction and livelihoods, iii) gender, youth and social inclusion, iv) climate adaptation and resilience, and v) environmental health and biodiversity. Second, the data were thematically coded, and the coded content were analysed to identify key points of interest related to horizontal and normative coherence.

Once the data were extracted, a process was applied to rank horizontal and normative coherence on a scale reflecting their level of coherence. The rating process for policy coherence is depicted in Table 2. Once the rating process was completed, a final score for horizontal and normative cohesion for each SLW policy was calculated by combining: i) FLW system, and ii) national strategic development goal rating scores. Vertical coherence did not undergo this rating process.

Table 2: The rating scores and their corresponding descriptions for normative and horizontal coherence analysis.

| Rating | Colour | Description |
|---------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | Green | A policy that positively impacts any of the i) FLW systems; ii) national strategic development goals. A score of 2 is assigned if the positive impact is the primary objective of the policy. |
| 1 | Green | A policy that positively impacts any of the i) FLW systems; ii) national strategic development goals. A score of 1 is assigned if the positive impact is the secondary objective of the policy. |
| 1 | Grey | Any omitted or neutrally addressed components will be marked in cautionary grey and score 1. |
| 1 | Red | If a policy poses a negative impact on any of the i) FLW systems, ii) national strategic development goals, it will be marked red and score 1. |

3. Results

In this section, we present the results of the coherence assessment for key FLW policies in the Lao PDR (section 3.3). This examines the coherence of FLW policies focusing on both horizontal coherence (how different policies interact with each other), normative coherence (the extent to which policies align with overarching development themes), and vertical coherence (the extent to which national and local policy implementation aligns). We preface section 3.3 with the institutional mapping (section 3.1) and policy mapping (section 3.2) results. These outline the Lao PDR governance structure, policy formulation process, and national policy landscape in which the five selected FLW policies were formed and implemented. The mapping results provide essential context for understanding the coherence of the policies in question, highlighting potential synergies or conflicts between policies and challenges that may arise within the existing governance structure.

3.1. Institutional Mapping

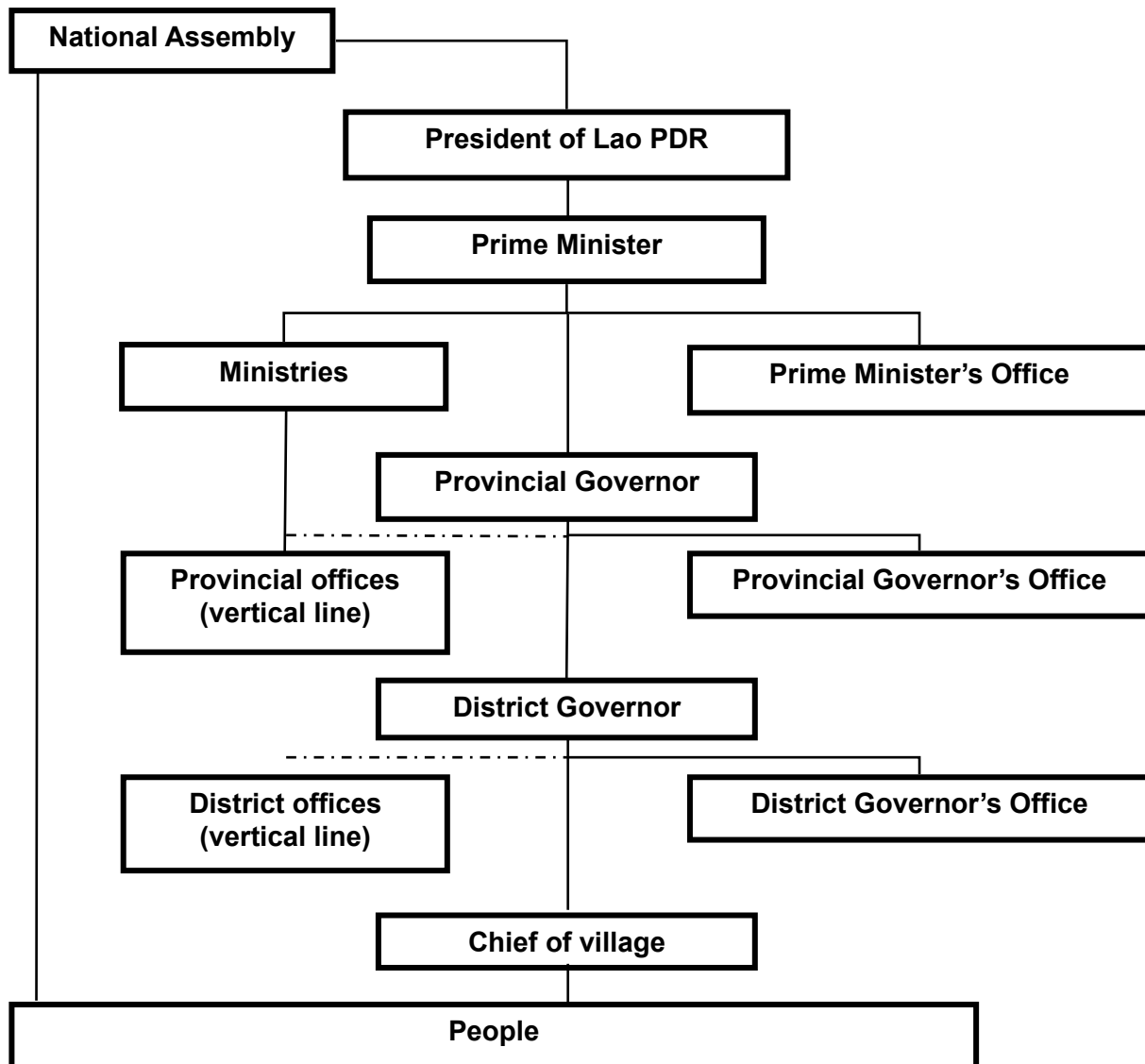
3.1.1. Governance Structure

Lao PDR is governed by its national constitution and laws, under the leadership of the Lao People's Revolutionary Party (LPRP), the single-party system, and the Politburo (Slater and Keoka 2012). According to the constitution (NA 2015), the country's governance structure includes:

- a) The National Assembly (NA) as the legislative branch
- b) The central government as the executive branch
- c) The people's court as the judiciary branch.

The country is led by a President, who serves as the head of state. The president's key roles include overseeing national defense and security, announcing the constitution and laws adopted by the NA, and facilitating the functioning of the government. The Prime Minister leads the government, which is organised into 17 ministries and 2 equivalent bodies: the Prime Minister's office, and the Bank of Lao PDR (Vientiane Times 2021). Most ministries operate through de-centralised structures at the provincial and district levels (Slater and Keoka 2012). At the sub-national level, the governance system includes local administrations and authorities across Lao PDR provinces, districts, and villages. The Lao PDR governance structure and key actors is illustrated in Figure 2 below.

Figure 2: The governance structure and key actors within Lao PDR (Slater and Keoka 2012).



3.1.2. Policy Formulation Process

The national policy formulation process in Lao PDR involves multiple stages and actors across different levels of government. The country's governance structure is centralised under the leadership of the Lao LPRP, which guides all policy and strategic developments. The NA plays a pivotal role in the approval of national laws and policies, while the relevant ministries are responsible for the creation, formulation, and development of these policies.

The policy formulation process begins with the Secretariat, a ministry designated for policy and strategic development. The Secretariat leads the early stages of policy drafting, often collaborating with various sectors and stakeholders. Ministries, under the guidance of their respective ministers, review policies and assess their relevance to the sector they manage. Ministers provide advice on issues of cross-sectoral convergence, ensuring that policies align with broader national goals. After the review, policies are submitted for approval by higher government authorities, including the Council of Ministers and ultimately the NA.

A key part of the policy formulation process involves engaging various stakeholders to ensure that policies are well-rounded and representative of diverse perspectives. Although stakeholder consultations are a central part of the process, it was noted by KI's that community involvement is not always consistently included during the formulation stage. Instead, community consultations and feedback collection are often carried out during specific field interventions by local offices. For example, DAFO has engaged with communities during previous interventions, gathering input to inform policy decisions.

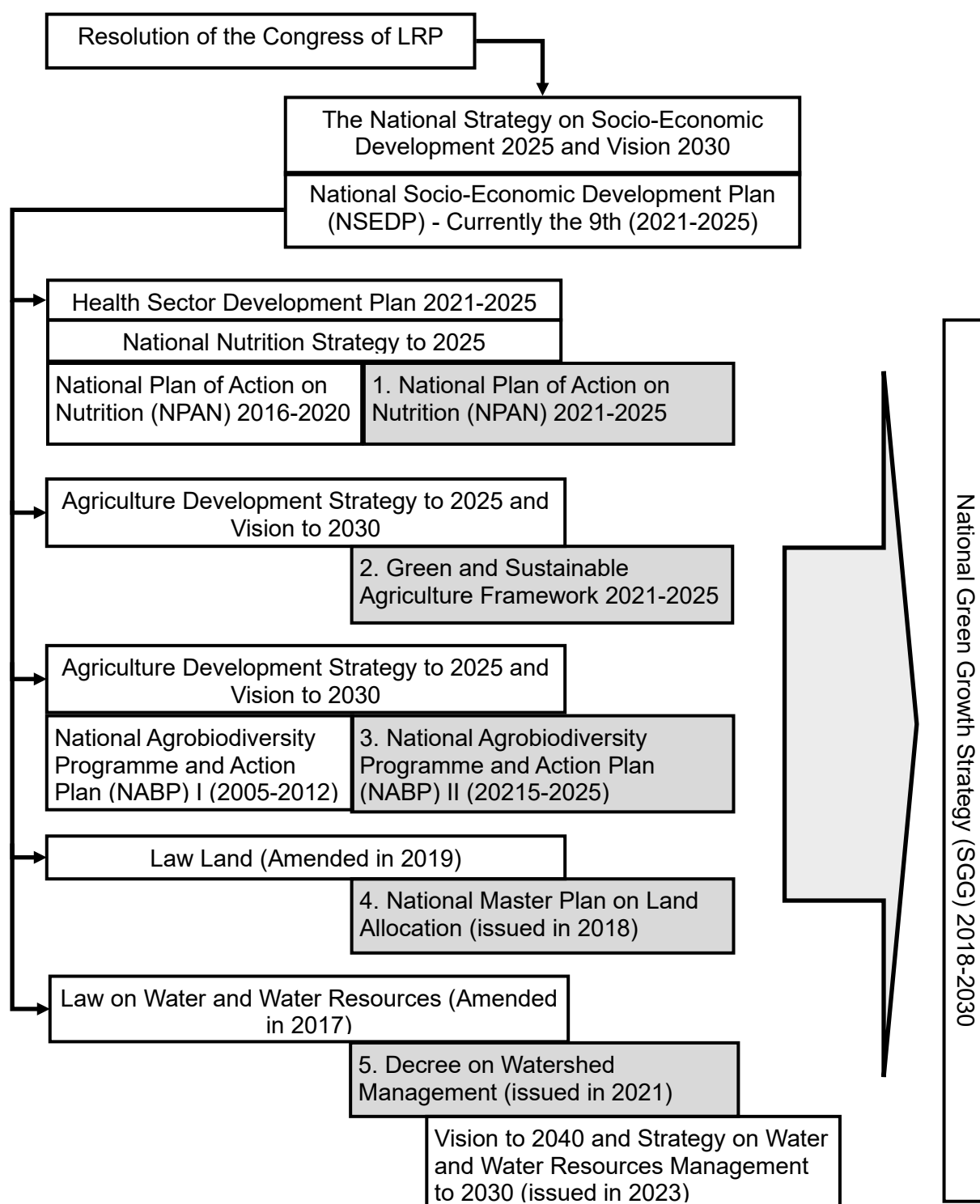
In addition to government ministries, development partners, including multilateral and bilateral donors, play a critical role in supporting evidence-based policymaking. These partners provide financial assistance, research, and technical expertise to inform the policy process. Ministries often establish research centres or institutes to conduct in-depth studies and provide technical input. For example, NAFRI under the MAF, plays an essential role in generating evidence-based data and offering policy recommendations related to agricultural and rural development. These research efforts also cover sensitive topics such as nutrition, land management, concessions, environmental sustainability, and green growth.

Once a policy is formulated and endorsed at the national level, its implementation begins. At the ministry level, specific departments and divisions hold responsibility for implementing policies within their respective subsectors. These departments manage day-to-day activities and ensure that policy frameworks are operational at lower levels of government. For instance, local and district level offices such as the District Agriculture and Forestry Office (DAFO) are responsible for managing policies related to agriculture and forestry at the community level. The responsibility for putting policies into practice rests with provincial and district offices, which work to translate national strategies into actions within their regions. These local bodies are tasked with ensuring that policies are applied in a way that aligns with the national objective while considering local contexts and needs.

3.2. Policy Mapping

This section briefly describes the national policy landscape in which the five selected FLW policies were formulated and implemented (Figure 3) below. The policy landscape in Lao PDR is shaped by a series of interconnected frameworks, strategies, and action plans which sit under the '9th National Socioeconomic Development Plan' (NSEDP) designed to address key areas of development including food security, agriculture, water management, and land use.

Figure 3: Policy landscape map for the five FLW policies analysed for coherence within this report, developed by the authors of the report.



3.2.1. Food and Agricultural Policies

The 'National Plan of Action on Nutrition (NPAN)' 2021-2025 extends the previous NPAN (2016-2021), building upon the goals set forth in the 'National Nutrition Strategy (NNS)' (2016-2025). The NPAN aims to address nutrition and food security challenges through a multi-

sectoral approach. The formulation of this plan was led by the MOH in coordination with MAF, the Ministry of Education and Sports (MOES), and the Ministry of Planning and Investment (MPI). The NPAN aims to eradicate all types of malnutrition and ensure better nutrition for people, specifically focusing on women and children. It specifically targets malnutrition related diseases, such as anaemia, stunting, and wasting. It was also designed to facilitate all relevant sectors to integrate nutrition interventions into their sectoral strategies and plans. Under this cooperative initiative, NPAN has 13 strategic objectives (SO's) and twenty-two priority interventions, for which MOH is responsible for 10, and MAF and MOES are responsible for the others. To track NPAN's impact across thematic areas, the Ministry of Planning and Investment (MPI) has coordinated with relevant sectors and donors. MPI is responsible for compiling implementation progress and integrating findings into the Development Research Institute (DRI) database. This centralised platform will serve as a national repository for nutrition data, supporting evidence-based decision making on socioeconomic development and poverty reduction.

In parallel, the '**Green and Sustainable Agricultural Framework (GSAF)**' 2021-2025 was developed as a priority under the 'National Green Growth Strategy' to 2030. This framework serves as a strategic guide for sustainable agricultural practices, focusing on irrigation, rainfed crop production, livestock, fisheries, agroforestry, and non-timber forestry products (NFTPs). Formulated by the MAF with support from relevant departments and ministries, the GSAF directs national agricultural investments and helps implement sustainable practices that promote both economic growth and environmental sustainability. It aligns with the Agricultural Development Strategy 2025, supporting policy development, implementation, and planning of agricultural interventions, while integrating the interests of farmers, their health, food safety, and the environment.

The '**National Agro-Biodiversity Programmes and Action Plan (NABP)**' (2015-2025) is another critical component of Laos' agricultural and environmental policy landscape. This program promotes the sustainable use and conservation of agrobiodiversity, essential for food security and rural development. Led by MAF and facilitated by NAFRI, the NABP collaborates with several ministries, including MONRE's Department of Forestry Resources, Department of Traditional Medicines, and the Ministry of Science and Technology. The NABP serves as a framework for agro-biodiversity conservation and management, encompassing six farming systems: paddy rice-based, integrated agriculture, upland agriculture, forest, commercial agriculture, and wetlands. These systems aim to promote green production, increase biodiversity, and regulate the sustainable use of resources, while protecting wildlife and timber forest products. As a cross-sectoral policy, NABP integrates multiple stakeholders to achieve its objectives. NABP also supports the International Convention on Biodiversity (CBD) of which Lao PDR is a signatory member, the implementation of the Kunming Montreal Global Biodiversity Framework on climate change adaptation, and the National Determined Contribution (NDC) which aims to reduce agriculture's contribution to greenhouse gas emissions.

3.2.2. Land Policies

The '**Master Plan on Land Allocation (MPLA)**', formulated by MONRE serves as a national strategy for land use, zoning, and management, aligning with sustainable development objectives and environmental policies outlined in the 'Agreement of the Party (No. 026)'. The plan centralises land management under government regulations and is implemented in collaboration with MAF, MOIC, and MOEM to ensure coordinated sectoral engagement. MPLA defines land allocation by identifying zones, categories, and designated land use purpose. It aims to allocate 70% of land for forestry and conservation while reserving 30% for utilities, including agricultural land. The plan guides relevant sectors in coordinating land management across eight categories: agriculture, forestry, wetland, industry, transport and communication, construction, culture, and national protection and security. By structuring land use in this way,

MPLA supports sustainable land management practices while balancing conservation goals with economic and infrastructural development.

3.2.3. Water Policies

In the area of water management, the '**Decree on Watershed Management (DWM)**' provides regulations for the sustainable management of water resources and ecosystems. Formulated under MONRE through stakeholder consultations, including MAF, MEM, WB, IFAD, ADB and environmental organisations, the decree outlines sectoral responsibilities and regulatory reforms for water management. Its implementation involves coordination among MONRE, MOEM, and MAF, focusing on water use for energy generation, irrigation, and fisheries, with NAFRI playing a leading role. The decree categorises water based on its purpose, agriculture, industry, and household use, and aligns with the *Law on Irrigation* to ensure effective watershed monitoring and management. In 2023, the *Vision to 2030* and *Strategy on Water Resources Management* were introduced to guide long-term policy application, supporting the country's green growth and socioeconomic development while aligning with the *2040 Vision on Water Resources Management*.

3.3. Coherence Analysis

3.3.1. Horizontal Coherence

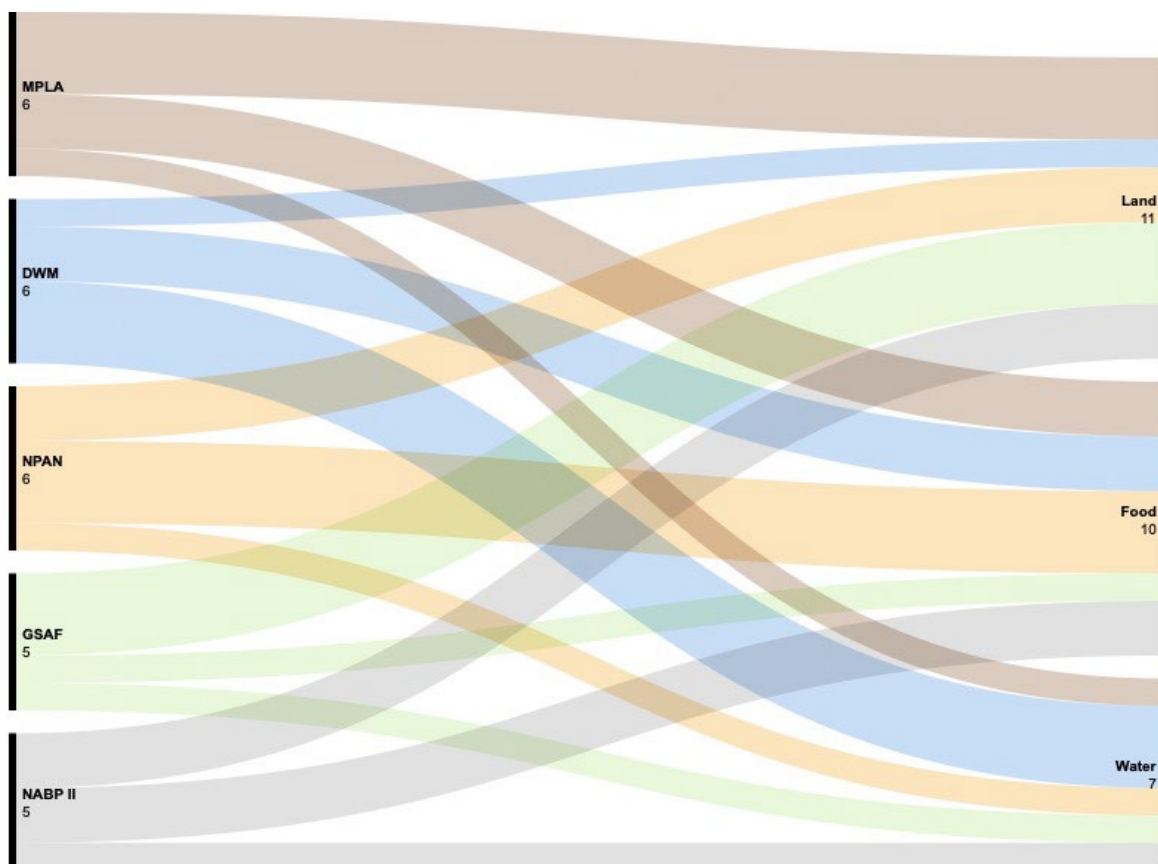
The analysis of horizontal coherence among key policies and programs reveals significant cross-sectoral linkages across land, food, and water. As shown in Figure 4, each policy contributes to multiple thematic areas, highlighting the interdependencies between land management, food security, and water governance. For example:

- MPLA primarily influences land use but also connects to food systems.
- DWM strongly integrates water management with both food production and land conservation.
- NPAN demonstrates a balanced focus across all three sectors, reinforcing its role in food security and nutrition.
- Similarly, GSAF and NAPB show strong ties to water governance and food systems, emphasizing sustainable agricultural and environmental practices.

Key interconnections of horizontal coherence between policies were also observed. For example:

- MPLA was linked to the GSAF, NPAN, and NAPB through provisions for land allocation for agriculture, forestry, and wetland areas. The wetland allocation aspect was also relevant to DWM.
- The DWM intersects with the other 4 policies by addressing water allocation for household use, industry, balanced ecosystems, socioeconomic development, and water resource management.
- NPAN explicitly connects with GSAF and NAPB through agricultural interventions and multisectoral responses to natural disasters. However, it does not directly refer to MPLA or DWM.
- Finally, the successful execution of land allocation and water management, as defined in the GSAF and NAPB, directly contributes to NPAN outcomes.

Figure 4: Horizontal coherence of key national policies across thematic sectors (land, food, and water).



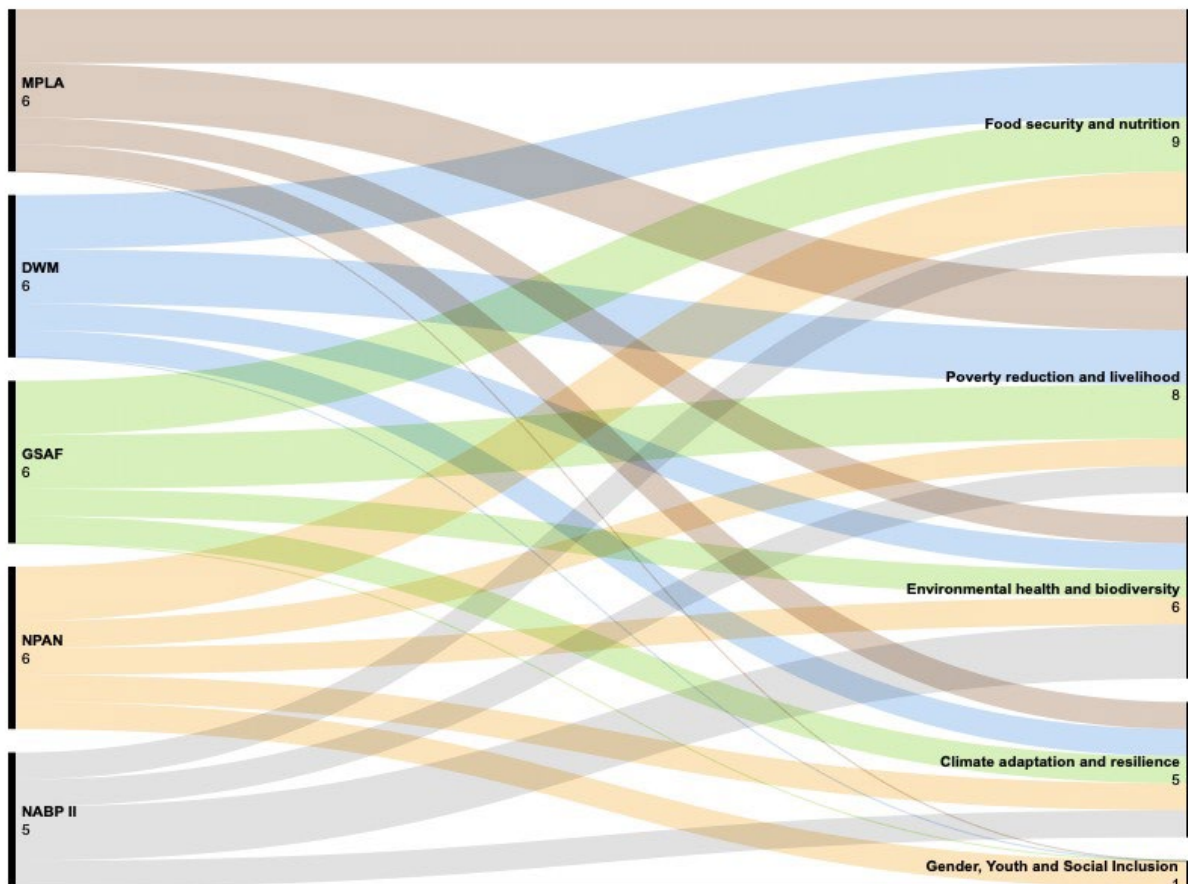
While these interconnections exist on paper, key informants reported difficulties in translating them into practice. Main identified challenges included:

- *Limited Awareness and Coordination:* Many stakeholders were unaware of how different policies relate to one another, primarily due to a lack of communication and coordination across sectors.
- *Insufficient Implementation Scale and Duration:* The perceived policy interconnections remain theoretical, as implementation efforts have been fragmented and short-term.
- *Sectoral Silos:* Stakeholders often have limited knowledge of policies beyond their direct responsibilities, leading to hesitation in confirming policy coherence.

3.3.2. Normative Coherence

This section presents the results of the normative coherence analysis for key FLW policies, focusing on their alignment with five thematic impact areas: i) food security and nutrition, ii) poverty reduction and livelihoods; iii) environmental health and biodiversity; iv) climate adaptation and resilience, and v) gender, youth, and social inclusion (Figure 5). Across these themes, food security and nutrition emerged as the most strongly addressed impact area, with a total score of 9, indicating extensive alignment with multiple policies. Poverty reduction and livelihoods were the second most supported area, with a total score of 8. These scores were driven by contributions from NPAN, MPLA and GSAF. Environmental health and biodiversity, and climate adaptation and resilience received moderate scores of 6 and 5 respectively, indicating that policies incorporated these elements with varying degrees of emphasis. Finally, gender, youth, and social inclusion was the least addressed thematic area, receiving a score of 1, which was attributed to minimal contributions from NABP.

Figure 5: Normative coherence of FLW policies across key thematic impact areas in Lao PDR.



The following sections detail the specific contributions of each FLW policy to the thematic impact areas, drawing from desk review and key informant interviews described in section 3. Throughout this section, we include direct quotes from KIIs to illustrate key insights and perspectives. A comprehensive summary of these results is provided in Appendix 2.

(1) National Plan of Action on Nutrition (NPAN)

The NPAN aims to address nutrition and food security challenges through a multi-sectoral approach, focusing on eradicating malnutrition, particularly among women and children, and integrating nutrition interventions across various sectors to improve overall public health and development outcomes.

Food Security and Nutrition: The impact of NPAN extends beyond its immediate nutritional targets. NPAN interventions have supported various food security and nutrition initiatives, including non-timber forest products (NTFPs), home gardening, fishponds, livestock, food preservation and processing techniques (such as dried fish), expanded food production and storage, and diversified livelihood activities in rural areas. According to the Lao Social Indicator Survey (LSIS) (LSB 2018), stunting rates among children and anemia rates among women showed improvement. However, a recent semi-annual nutrition surveillance survey in April

“Achieving these targets tends to be challenging, according to a monitoring survey. However, it doesn’t mean NPAN is not always implemented. At the same time, nutrition is associated with many different factors.” (Health Sector Government Official)

2023 found that the stunting rate had increased from 31-37%, alongside low access to minimum dietary diversity (MDD) among women and children. While these findings are not nationally representative, they highlight the complexity of nutritional improvements, which are influenced by multiple factors that extend beyond NPAN's direct interventions.

Poverty Reduction and Livelihoods: NPAN's agricultural sector interventions contribute to poverty reduction by promoting agricultural commercialisation, protecting natural resources,

“I have learned that many development projects received good cooperation from villagers and outputs during their interventions; however, many villages do not often actively continue their practices after the project completion.” (International Organisation Program Manager)

and supporting NTFPs. However, KI's noted that some NPAN-supported projects have struggled with sustainability after external funding ended. Development projects that provided free inputs, such as iron tablets or cash assistance, risked fostering dependency rather than building long-term capacity. To address this challenge, the MOH has introduced initiatives such as the Nutrition Model Village, which encourages village authorities and communities to take ownership of nutrition efforts under the national plan.

Gender, Youth, and Social Inclusion: Limited access to diverse and nutritious food remains a challenge, particularly for women and children in rural areas. While NPAN aims to improve nutrition across all demographics, recent data indicates persistent gaps. Additionally, concerns have been raised about the burden placed on women, as they are often expected to take on additional responsibilities within their households without corresponding support from their husbands.

“Women and children are our intervention focus on ensuring achievement of the development targets of the National Assembly on stunting and wasting, as well as the MOH's indicator on anemia in women. We also try to ensure women access services and capacity building.” (Government Official)

Climate Adaptation and Resilience: NPAN's agricultural interventions contribute to climate adaptation and resilience by promoting diversified and sustainable food production practices. The policy encourages the use of NTFPs, home gardening, and sustainable livestock management. These initiatives enhance food security while reducing vulnerability to climate-related shocks. However, long-term resilience depends on the sustainability of these interventions and the ability of local communities to maintain them beyond project timelines.

Environmental Health and Biodiversity: Through its WASH (Water, Sanitation and Hygiene) interventions, NPAN plays a key role in improving environmental health. The policy has contributed to Open Defecation Free (ODF) certification for villages that meet sanitation benchmarks, alongside promoting handwashing programs in schools. However, challenges remain, particularly regarding consistent access to clean water. While the LSIS II Survey (2017) reported that 83.9% of Lao households use improved water sources for drinking, water access issues persist in certain areas, affecting both household hygiene and agricultural production.

(2) Green and Sustainable Agricultural Framework (GSAF)

The GSAF focuses on promoting sustainable agricultural practices in areas such as irrigation, crop production, livestock, fisheries, agroforestry, and non-timber forestry products to ensure economic growth and environmental sustainability.

Food Security and Nutrition: GSAF promotes sustainable agricultural practices, including organic farming, which can indirectly support food security by enhancing agricultural productivity and income. However, there is no substantial assessment to confirm the framework's impact on food security on a large scale. While organic agriculture has been mainly practiced in urban centres like Vientiane, Champasak and Savannakhet, the expansion into rural areas remains dependent on external support from development projects and investors. Additionally, GSAF targets mid/low-income consumer groups with organic crops, which could help address nutrition and food access in these markets.

Poverty Reduction and Livelihoods: GSAF has shown positive contributions to poverty reduction by promoting diversified livelihoods, including income from organic farming and agroforestry. The agroforestry system, with income generation from ecotourism, further supports livelihood diversification. However, there is limited evidence of the broader long-term impacts on poverty reduction, particularly outside of the areas receiving support.

“Organic farming helps improve the livelihood of our group members because we can sell both the grown vegetables and naturally grown vegetables and weeds around the organic plots.” (Organic Farmer)

Gender, Youth, and Social Inclusion: Although gender-sensitive elements were not explicitly outlined in the formulation of GSAF, the framework places a significant emphasis on gender equality in its implementation. It focuses on increasing the participation of women in agriculture, particularly through training in organic farming and decision-making processes. By strengthening the capacity of women farmers, GSAF aims to provide them with opportunities for improved income and empowerment. However, the document does not clearly address

*“I think we could have done better by putting more effort into having gender components outlined in every action of GSAF.”
(International Expert)*

gender or youth integration at all stages of implementation, resulting in gaps that may hinder equal access to the benefits and opportunities provided by GSAF.

Climate Adaptation and Resilience: While no substantial evidence exists, GSAF contributes to climate adaptation through the promotion of agroforestry, which helps mitigate climate stress by improving forest coverage and reducing harmful practices like slash-and-burn agriculture. Organic agriculture, which requires farmers to maintain favorable environmental conditions (such as growing large fruit trees for ventilation and using organic compost) also supports climate resilience. These interventions are designed to foster sustainable land management practices and reduce the environmental impacts of conventional farming, thus helping communities adapt to climate change.

Environmental Health and Biodiversity: While no substantial evidence exists, GSAF supports environmental health and biodiversity by promoting agroforestry systems that help conserve forests and biodiversity. The framework encourages sustainable agricultural practices that reduce environmental degradation, such as slash-and-burn, while fostering ecosystem health through organic farming. The emphasis on growing fruit trees and maintaining soil health contributes to the preservation of biodiversity and reduction of ecological stress. Additionally, the involvement of women in agroforestry and organic farming is aligned with biodiversity conservation efforts as it promotes sustainable agricultural systems that balance productivity with environmental preservation.

“I found that there are more earthworms and other animals, i.e., frogs, around my organic vegetable.” (Organic Farmer)

(3) National Agrobiodiversity Programmes and Action Plan (NAPB)

The NAPB focuses on promoting the sustainable use and conservation of agrobiodiversity across six farming systems, supporting food security, rural development, and environmental sustainability while integrating multiple stakeholders and aligning with international biodiversity agreements.

Food Security and Nutrition: NAPB indirectly supports food security and nutrition through interventions aimed at protecting natural resources which are essential for agricultural production. While the policy promotes alternative agricultural production methods to ensure natural resource protection, evidence linking it directly to food production is limited. Development projects aligned with NAPB have shown positive impacts, such as improving access to food and supporting nutritional outcomes, but there is insufficient data to confirm these results universally. The policy also promotes subsistence agriculture, including the use of non-timber forest products (NTFBs), which play a critical role in local food security.

Poverty Reduction and Livelihoods: NAPB has shown potential in contributing to poverty reduction, particularly through ecotourism, which is slowly emerging as a viable livelihood source for many households. This development provides additional income and supports food and nutrition security in rural communities. However, the NAPB faces challenges in integrating agricultural practices and biodiversity policies in a cohesive manner. For example, the ongoing use of chemical fertilizers and pesticides may undermine sustainable agricultural practices. This underscores the need for a more holistic approach to ensure that livelihoods remain both resilient and sustainable.

“I think all the agrobiodiversity is good to support agricultural production; however, it is challenging in the implementation, and understanding how to integrate biodiversity to enhance agricultural production seems minimal. Villagers do not understand the use of natural pest control, i.e., migrating birds to eat coffee beetles, instead of applying chemical pesticides and fertilizers.” (Expert Research Consultant)

Gender, Youth, and Social Inclusion: While NAPB does not explicitly address gender sensitivity, it is acknowledged that women’s involvement is often targeted within development projects. However, the absence of gender-specific strategies within the framework limits its potential to address gender inequality in agricultural and environmental policies. The NAPB does not outline clear measures to include or empower women and youth in agrobiodiversity conservation, leaving a gap in ensuring that these groups benefit equally from policy interventions. Social inclusion remains implicit in the general targeting of development projects, but more direct interventions are necessary.

“It might be good if gender-based measures and responsive budget were outlined in the policy document, i.e., percentage of women participated in training and making a decision.” (Program Policy Officer)

Climate Adaptation and Resilience: The NAPB contributes to climate adaptation and resilience by promoting the protection of forests, which are crucial for maintaining biodiversity and mitigating climate impacts. However, the plan lacks explicit strategies for water management, which is essential for climate adaptation in agricultural systems. The policy’s impact on climate change adaptation remains uncertain, as there is limited integration of climate resilience measures into its action plans. The protection of aquatic ecosystems and sustainable water management are highlighted as prospective actions, though further integration of these elements into the NAPB is needed.

“There may not be a particular gender issue under this work, but I have learned that both the government and international organizations take gender equality as a priority by setting particular targets to have women participate in their development interventions.” (Freelance Expert)

Environmental Health and Biodiversity: The NAPB supports environmental health and biodiversity through the promotion of sustainable agricultural practices that protect ecosystems. NAPB’s focus on agro-biodiversity aims to regulate land use and protect wildlife, promoting long-term sustainability in agricultural and forestry practices. However, the ongoing use of chemical fertilisers and pesticides poses risks to these ecosystems, and greater efforts are needed to harmonise agricultural intensification with environmental conservation. NAPB aligns with the Master Plan on land allocation and its emphasis on watershed management is key to protecting biodiversity and ensuring the sustainability of aquatic ecosystems.

(4) Master Plan on Land Allocation (MPLA)

The MPLA aims to regulate land use and zoning to ensure sustainable land management, balancing environmental protection with national development goals.

Food Security and Nutrition:

MPLA serves as a guide for socio-economic development and poverty eradication interventions, but substantial evidence is still needed to confirm its positive impacts on food security. The implementation of land allocation at the village level

“On food security, I have learned that there are activities to support rural communities in animals raising and vegetable cultivation within community land allocations project led by the GIZ; however, I do not have details on their achievements.” (Natural Resources Management Government Official)

remains incomplete, raising concerns that some villagers, particularly those in rural areas, may be affected if their agricultural activities are in protected zones.

Poverty Reduction and Livelihoods: While MPLA aims to support socioeconomic development, its practical implementation is influenced by factors such as human resources, capital, and capacity. Some key informants raised concerns that certain villagers operating agricultural farms in protected zones may experience negative consequences once the plan is fully enforced. The extent to which MPLA contributes to poverty reduction remains unclear due to the lack of comprehensive impact assessment measures.

“MORE and MAF are having consultations to find solutions for rural communities, about 3,000 villages located in the protected forest lands. I think possible solutions may include enhancing people’s understanding of the terms that may enable using forestland, conducting surveys to acquire people’s perceptions, and re-allocating the land zone.” (Land Working Group Consultant)

Gender, Youth, and Social Inclusion: Land allocation and ownership in Laos are gender-inclusive, with both men and women having equal rights to hold land titles. However, key informants noted that gender considerations are often absent from land policies, including the MPLA and the broader land law. Some stakeholders questioned if this omission was intentional, given that women’s land rights are already determined by family law. Despite this, development projects such as the Agro-Biodiversity Initiative (TABI) have actively engaged women at the community level in land certification processes.

Climate Adaptation and Resilience: The impact of MPLA on climate adaptation is difficult to assess due to the need for comprehensive data on sectoral involvement. Land allocation influences issues such as land concessions, deforestation, and soil degradation, all of which can affect climate resilience. The long-term environmental consequences of the plan, particularly regarding its influence on protected forests and sustainable land use require further examination.

“MAF is implementing its Landscapes and Livelihood project to protect and rehabilitate forests, which may positively contribute to climate adaptation in the long term”. (Natural Resource Management Government Official)

Environmental Health and Biodiversity: MPLA plays a role in regulating land use to support environmental protection, but its effectiveness in preserving biodiversity remains uncertain. Concerns include the exploitation of protected forests and the impact of commercial activities on soil quality. A thorough assessment is needed to determine whether the plan successfully balances development with environmental conservation.

(5) Decree on Watershed Management (DWM)

The DWM aims to ensure sustainable management, protection, and utilisation of water resources to support ecological balance, socioeconomic development, and green growth.

Food Security and Nutrition: The DWM supports national development outcomes related to food security by ensuring water supply for irrigation, food production, gardens, and livestock keeping. While key informants believe that DWM positively impacts food security through improved water management and irrigation supply, there is no substantial evidence of its actual implementation impact. Concerns were raised regarding inadequate communication between hydropower operators and local communities, leading to issues such as insufficient water

discharge for cultivation during dry seasons and excessive discharge during wet seasons, damaging agricultural farms.

Poverty Reduction and Livelihoods: DWM is designed to facilitate interventions and collaborations among relevant sectors, including agriculture, hydropower, and utilities. Water resource allocation for irrigation is integrated into the plan, which has the potential to improve livelihoods by supporting agricultural productivity. However, there are concerns about how water allocation decisions for hydropower generation affect local communities. The extent to which DWM contributes to poverty reduction remains unclear, as its implementation is still in its early stages, having been endorsed in 2021.

Gender, Youth, and Social Inclusion: Gender elements are not explicitly outlined in the DWM decree but are incorporated into basin management plans and project activity plans. For example, an ADB supported irrigation development project requires at least 45% of women to participate in the irrigation management committee. Women's active participation is encouraged at various levels, from leadership at the central level to community-based irrigation activities, such as dam construction and water management. However, youth participation in watershed management remains a challenge, as many young laborers migrate to other areas or countries for employment and education opportunities.

*“We need to know what significant gendered issues around this watershed management would be and bring them up to the consultation process for further addressing.”
(WASH Specialist from an International Organisation).*

Climate Adaptation and Resilience: DWM contributes to climate adaptation by promoting forest protection and biodiversity conservation in watersheds. The decree supports sustainable land use and water management to mitigate environmental risks. However, its actual effectiveness in enhancing climate resilience remains unclear due to limited data on implementation outcomes.

Environmental Health and Biodiversity: DWM addresses environmental protection by reducing waste and wastewater discharge into rivers, helping to maintain water quality and safeguard biodiversity. It also emphasises the link between biodiversity protection and land use planning in river basins and watersheds. The decree aligns with broader conservation efforts, but further assessment is needed to determine its long-term impact on ecosystem health.

3.3.3. Vertical Coherence

A significant disconnect was observed between FLW policy implementation between central and local government levels, impacting vertical policy coherence. Several key insights emerged from the KIIs:

- *Policy Design vs. Implementation:* While central ministries and development partners led policy design, local governments are responsible for implementation. However, local administrative levels often adapt policies to local contexts, sometimes deviating from the original intent.
- *Resource and Capacity Constraints:* Many policies fail to be fully implemented at the local level due to funding shortages, limited technical expertise, and inadequate natural resources. For example, local enforcement of DWM water regulation policies remain weak due to insufficient coordination and capacity.
- *Implementation Challenges:* Implementation challenges are often observed at the village level. For example, NPAN's open defecation handwashing initiatives could not be realized in some villages due to water scarcity.

4. Discussions

Below we explore the short and long-term impacts of policies on FLW systems, reflecting on both horizontal, normative, and vertical coherence. We highlight alignment and gaps in policy areas and explore how these dynamics shape the effectiveness of governance and policy outcomes. Using insights from the coherence analysis, we then identify future challenges for FLW systems and recommend solutions for addressing existing implementation gaps and improving coordination across sectors and levels of governance.

a. Short and Long-Term Impacts on FLW Systems

In examining the policy landscape in Lao PDR, it is evident that there is both alignment and disjunction across various FLW policy areas. This will likely influence the effectiveness of governance in the sectors of land use, food security, and water security. Below we discuss the potential impacts of FLW policies based on the results of horizontal, normative, and vertical coherence analysis. This aims to contribute to a deeper understanding of future challenges for FLW systems in Lao PDR.

i. Horizontal Coherence

Horizontal coherence refers to the extent to which policies across different sectors are aligned and coordinated (Shawoo et al. 2023). In the case of Lao PDR, there is substantial evidence of cross-sectoral integration, with policies such as the MPLA, DWM, and NPAN, demonstrating interconnectedness between FLW systems. However, horizontal coherence appeared weak in practice, with KI's revealing a general lack of awareness about the relationships between these policies. This knowledge gap can hamper effective implementation and result in fragmented approaches to addressing FLW system issues (Shawoo et al. 2023). For example, agricultural expansion policies under the MPLA may conflict with watershed protection goals outlined in the DWM, leading to potential environmental degradation, such as soil erosion, deforestation, and water pollution. Sectoral silos, where policies operate independently without sufficient communication or coordination between sectors, may limit the potential for FLW policies to support each other effectively (Santos et al. 2022).

In the short term, these policy misalignments may result in inefficiencies in resource allocation, where sectors work toward conflicting goals without coordination, leading to mixed signals for local stakeholders. This fragmentation undermines efforts to address urgent issues like food and water insecurity, making it harder for local communities to adapt to environmental challenges (Browne et al. 2023). In the long term, these inconsistencies may exacerbate environmental degradation and social risks, such as growing inequities for marginalised communities that depend on natural resources for their livelihoods (Meybeck et al. 2024). The lack of horizontal coherence may impede sustainable development and deplete essential resources that are critical for long-term food and water security (Shawoo et al. 2023).

ii. Normative Coherence

Normative coherence involves the alignment and impact of policies with overarching national development goals (Brand and Furness 2021; Shawoo et al. 2023). The FLW policies reflect a commitment to these goals, yet challenges remain in achieving full coherence. For example, NPAN and GSAF focus on food security, nutrition, and poverty reduction. However, they have had limited success in addressing the underlying issues of nutritional insecurity and long-term sustainability of rural livelihoods. On social inclusion, some policies like GSAF acknowledge the importance of empowering women, especially in agricultural sectors. However, gender and social inclusion remain under-prioritised in many other policies. Notably, the absence of explicit gender-sensitive strategies in policies like MPLA and NAPB limits the scope of these policies in promoting inclusive development.

In terms of climate resilience, policies like GSAF and NPAN aim to build climate smart agricultural systems but fail to integrate climate adaptation across all sectors. This fragmented approach hinders efforts to create a comprehensive climate strategy, leaving critical areas unprepared for the impacts of climate change (McCartney 2021). These gaps in normative coherence contribute to a disjointed approach to achieving national development goals, undermining efforts to achieve long-term sustainability and resilience. The limited integration of gender, social inclusion, and climate resilience within policies limits their potential to create inclusive, climate-resilient FLW systems. Ultimately, this can slow progress toward achieving national development goals, reducing the effectiveness of efforts to address the complex, interconnected challenges present in Lao PDR (Tantoh et al. 2021; Toromade et al. 2024).

iii. Vertical Coherence

Vertical coherence concerns the alignment of policies between different levels of government, from national to local (Shawoo et al. 2023). In Lao PDR, national-level policies set the framework for governance, but their implementation at the local level is often impeded by inadequate coordination and lack of resources. This gap between national directives and local practices results in weak policy enforcement and misalignment with local needs. The absence of clear guidelines and adequate support for local stakeholders means that even well-articulated national policies fail to achieve their intended outcomes at the ground level. The inability of local stakeholders to fully implement national policies can exacerbate FLW issues, as policies designed to address these issues are not effectively translated into actions on the ground (Vargas 2024).

This lack of vertical coherence can have significant long-term impacts on FLW systems in Lao PDR. The misalignment between national policies and local realities can result in fragmented and inefficient resource management. Without clear guidance and capacity building at the local level, initiatives aimed at improving FLW systems are likely to falter, limiting the effectiveness of national strategies in fostering resilience and sustainability.

b. Key Implementation Gaps

The coherence analysis revealed several key implementation gaps and challenges including: i) a disconnect between FLW systems in policy implementation, ii) power dynamics and conflicting stakeholder interests, and iii) a lack of evidence to support policy implementation and assess impact. The following sections provide a more detailed examination of these issues.

i. Disconnect Between FLW Systems

A key implementation gap stems from a failure to address FLW issues through a systems lens. Achieving food security is unlikely if policies are developed in isolation (Santos et al. 2022). For example, prioritizing water over land policies, or focusing solely on closing yield gaps without considering environmental and biodiversity impacts can undermine food security by degrading ecosystems, depleting resources, and increasingly create unsustainable practices that harm long-term food production (McCartney and Bruner 2021). Meeting food security goals requires an integrated approach that carefully weighs trade-offs between water, land, energy, and the environment to support both short- and long-term food production (Waha et al. 2022).

A lack of systems thinking in policy design can lead to unintended consequences. Food production depends not only on agricultural inputs, but also on access to water, land, and biodiversity. When these interdependencies are overlooked, policies may produce mixed results (Nelles 2023). For example, in Lao PDR, rice is a staple crop that requires well-irrigated farmland designated under the MPLA. However, without proper coordination between government ministries and local action plans, agricultural land may be repurposed for housing construction, disrupting water and food productivity (Phompila et al. 2022). Similarly, forest

land is increasingly converted into farmland to meet food security targets, highlighting the trade-offs that arise when sectoral policies lack integration (Zhang et al. 2022). Hydropower expansion presents another challenge, as it can significantly affect aquaculture, household water supplies, and ecotourism if biodiversity impacts are not carefully managed (Atkinson 2021).

The need for policy coherence was further illustrated by the intersection of land and nutrition policies. For example, NPAN promotes the consumption of non-timber forest products (NTFPs) such as insects and mushrooms, which can help preserve forest land. However, NPAN doesn't address specific guidance on balancing the promotion of NTFPs with other land uses, such as urban development, or agriculture. As such, there is a need to align NPAN more effectively with broader land management policies. Without such integration, conflicting land-use priorities can jeopardize both food security and environmental sustainability (Phompila et al. 2022). Similarly, while the DWM supports NPAN objectives by emphasizing the role of watersheds in ensuring access to clean water, ongoing water shortages continue to undermine food production and hygiene, particularly in rural communities that lack adequate water supply systems or effective water management structures. Strengthening policies related to integrated water management is therefore essential to ensuring a reliable water supply across sectors (Maniphousay 2022).

To resolve these issues, policy coherence must be pursued with a more integrated approach that aligns food, land, and water management goals (Waha et al. 2022). This requires improvements in cross-sectoral collaboration, careful planning, and a commitment to creating policies that address the complexities of resource management in a rapidly changing environment.

ii. Power Dynamics and Stakeholder Interests

A significant challenge in policy implementation appears to arise from the diverse range of stakeholders involved, each with distinct priorities and interests. KII's highlighted that many policies remain highly dependent on donor-drive funding and technical support. While external contributions are often crucial, they can shape policy direction and influence decision-making authority (Pavelic 2023). A more explicit analysis of power dynamics (identifying which institutions, whether governmental or foreign hold the most control over policy design and implementation) would help in navigating these complexities and ensuring long-term sustainability.

One of the key concerns with externally led development projects is their tendency to struggle with maintaining impact beyond the funding period. When control over resources and implementation is concentrated in donors' hands, there is a risk that projects will not be sustained once external support ends (Strasser et al. 2021). For example, short-term interventions such as distributing iron tables to women, or offering direct cash transfers can address immediate needs; however, without sufficient investment in local capacity building, such programs can inadvertently foster dependency rather than long-term resilience (Caniglia et al. 2021).

Conflicting stakeholder interests also pose challenges to effective policy implementation. For instance, despite existing regulations on land and water use, farmers in some areas convert protected forestry land or irrigated rice fields into cash crop farms to take advantage of lucrative export markets in China and Vietnam (Cole 2022; Thang et al. 2022). While such decisions may offer short-term economic benefits, they can undermine broader policy goals related to sustainable land and water management. These trade-offs highlight the need for ongoing dialogue and consultative processes that bring together stakeholders to align policies with both immediate livelihood needs and long-term environmental and economic sustainability (Santos et al. 2022).

By recognising and addressing these power dynamics and competing interests, policymakers can better navigate implementation challenges and create policies that are both effective and sustainable. Strengthening coordination mechanisms, promoting inclusive decision-making, and ensuring that local actors have the necessary resources and authority to sustain policy outcomes will be critical for long-term success.

iii. Role of Evidence in Policy Making and Implementation

The role of evidence in policy making and implementation is often underemphasized in the context of Lao's FLW systems, and this can undermine the effectiveness and sustainability of policy outcomes. Evidence-based policymaking is critical at every stage before, during, and after policy implementation to ensure that policies are grounded in real needs, informed by reliable data, and responsive to ongoing challenges (Christensen 2021).

For a policy to achieve its intended outcomes, it must be based on a thorough understanding of the systemic challenges it aims to address. The design of policies should stem from a comprehensive analysis that identifies specific needs and gaps. Without this, there is a risk of implementing ineffective or misaligned policies that do not address the root causes of issues like food insecurity, land degradation, or water scarcity (Leong and Howlett 2022). The level of investment and the scope of activities must also be proportionate to the issues at hand, which require evidence to determine the necessary resources and actions (Dwivedi et al. 2024). Monitoring and evaluation (MEL) play a crucial role, enabling policymakers to adjust strategies as needed, track progress, and assess the policy's impact on its targeted groups. Without a strong MEL framework, it becomes difficult to gauge the success or failure of a policy, and opportunities for course correction are lost (Leong and Howlett 2022).

In the case of Lao PDR, there is a notable gap in the use of evidence in the policy process. Interviews with key stakeholders revealed that many officials are unsure whether policies have achieved their desired goals. This is largely because most policies are still in the process of implementation, and few have a clear and robust MEL system in place to provide the necessary evidence. Establishing and maintaining a disaggregated database (such as that provided by the Development Research Institute (WorldBank 2024)) could be instrumental in supporting evidence-based policy design and evaluation. A well-organised database could serve as a central repository for all national FLW data and function as a critical tool for monitoring the progress and outcomes of SLF policies (Fanzo et al. 2021).

From coherence analysis results, several key SLF policies were found to lack evidence. For example, the impact of tourism on socioeconomic development was unclear due to the absence of data that would allow for a proper assessment of its effects on local livelihoods. The enforcement of sustainable land and water management challenges also lacked data. To prevent practices such as land conversion or over-extraction of water, detailed data is needed to demonstrate the economic and environmental costs of these actions, helping to promote behavioral change and support sustainable policies (Khatri et al. 2024). These data gaps hinder effective policy evaluation and adjustment. Strengthening data collection is vital for improving policy coherence and enabling Lao PDR to better address food and water security (Brand and Furness 2021).

5. Conclusions and recommendations

To enhance policy coherence in Lao PDR's FLW systems and ensure the successful transformation of these systems into more resilient and sustainable environments, the following actions are recommended:

- **Improve Cross-Sectoral Coordination:** Establish mechanisms for regular inter-ministerial and inter-agency collaboration to ensure policies are designed and implemented in a cohesive manner.
- **Enhance Stakeholder Awareness and Engagement:** Conduct targeted training and information-sharing initiatives to improve understanding of policy linkages among implementing actors.
- **Ensure Adequate Resourcing:** Strengthen financial and technical support for local governments to enhance policy implementation capacity.
- **Strengthen Monitoring and Feedback Mechanisms:** Develop robust evaluation frameworks to assess policy coherence in practice and enable adaptive management.
- **Address Power Dynamics and Local Ownership:** Reduce dependency on donor-driven models by ensuring local stakeholders have the capacity and authority to sustain policy outcomes independently.

Addressing these recommendations will help bridge the gaps in Lao PDR's FLW policies, enabling the country to better navigate the complex and interconnected challenges it faces. By ensuring effective policy alignment and implementation, Lao PDR can build more resilient and inclusive FLW systems that meet the needs of its growing population while effectively addressing the impacts of climate change.

This FLW policy landscape in Lao PDR reveals both opportunities and challenges for enhancing the resilience and sustainability of its FLW systems. While there is some alignment across different sectors, significant disjunctions remain. These gaps undermine the effectiveness of policies designed to address FLW challenges. As demonstrated through the coherence analysis, the disconnect between various policies, lack of systemic thinking, and weak integration of gender and climate resilience considerations highlight critical areas that need attention. Moreover, vertical coherence challenges, wherein national policies are often poorly adapted to local realities, further complicate effective implementation. A more adaptive, integrated approach to policy design and execution is required to mitigate these challenges.

Addressing the identified gaps is not only crucial for enhancing policy coherence but for ensuring that Lao PDR's FLW systems can support a growing population while adapting to the impacts of climate change. Policies need to be carefully aligned, both within and across sectors, to avoid unintended consequences that undermine positive outcomes. Strengthening data collection and evidence-based decision making will play a critical role in shaping effective policies and guiding their implementation.

Ultimately, improving policy coherence will enable Lao PDR to achieve its national development goals and meet the broader SDGs. A coordinated, cross-sectoral approach is essential for addressing the complex and interconnected challenges that the country faces, enabling more sustainable outcomes that align food, water, and land management practices. By focusing on integrated governance, streamlined resource allocation, and inclusive decision making, Lao PDR can lay the foundation for a resilient and sustainable future for its people and ecosystems.

Annexes

Annex 1: Key Informant Interview Questionnaire

For each policy, the five questions below were administered to the respondent.

1. Context: What was the main reason this policy was formulated, what was its primary objective and timeframe, and what were the major stakeholders involved?

2. Formulation: How was it implemented? Does policy implementation and impact differ from national, provincial, to local administrative levels? If yes, what are these?

3. Externalities: Does the policy have co-benefits or trade-offs (co-harm) beyond its main objective?

4. Gender: How does the policy ensure that both men and women have equal access or benefit to it? Did the policy impact women and men differently, and if so, in what ways?

5. Impact:

- Can you think of any examples of how the policy impacts positively or negatively on the following outcomes, and in what ways?
 - i. Nutrition or food security,
 - ii. Poverty reduction/livelihoods,
 - iii. Gyi (gender, youth, inclusion)
 - iv. Climate adaptation/mitigation and or
 - v. Environmental health/biodiversity?
- How is your organization contributing to these various impacts?
- Can you think of any examples of how the policy impacts positively or negatively any of these other related policies? In what ways
 - i. National Master Plan on land allocation
 - ii. Decree on watershed management
 - iii. National Agro-biodiversity Programme and Action Plan II (NABP II)
 - iv. Green and Sustainable Agriculture Framework

Annex 2: Normative Coherence Results

Table 3: Summary of normative coherence results for the National Plan of Action on Nutrition (NPAN).

| Impact Area | Score | Evidence (Document Review) | Implementation Impact (Kills) | |
|----------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Positive | Negative |
| National Plan of Action on Nutrition (NPAN) | | | | |
| Food Security and Nutrition | 2 | <ul style="list-style-type: none"> Primary objective to address malnutrition among women and children. Key objectives include: Specific Objective 1 (SO1): <i>Improved nutrient intake</i>, SO2: <i>WASH and disease control</i>, and SO5: <i>Maternal and child to healthcare</i>. | <ul style="list-style-type: none"> Moderate improvement in food security in rural communities where development interventions occurred. | <ul style="list-style-type: none"> Improvements did not seem sustainable after interventions were completed. |
| Poverty Reduction and Livelihoods | 1 | <ul style="list-style-type: none"> Promotes poverty reduction and livelihoods through SO3: <i>Increased availability and access to sufficient, safe, and nutritious foods, as the underlying causes of malnutrition</i>. | <ul style="list-style-type: none"> Driven development projects to focus on vulnerable communities, providing livelihood and income generation schemes for rural communities (e.g., home gardens and livestock). May contribute to poverty reduction, considering poverty is caused by various factors, including natural disasters. | <ul style="list-style-type: none"> It is important to address concerns about dependency on free external assistance and the need for these schemes to be on a commercial scale. |
| Gender, Youth and Social Inclusion | 1 | <ul style="list-style-type: none"> Addresses the basic causes of malnutrition and creates an enabling environment. Gender equality is promoted through SO13 and other cross-cutting SOs, with the Lao Women's Union as a key implementer and partner. | <ul style="list-style-type: none"> Encouraged gender equality through the promotion of women's participation in numerous development projects. E.g., Healthy cooking demonstrations. | <ul style="list-style-type: none"> Concern about overburdening women with additional tasks in their households without receiving support from their husbands. Engaging pregnant and breastfeeding women in projects is difficult for the women. It is a challenge to engage youth because they often migrate elsewhere to work. |

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| Climate Adaptation and Resilience | 1 | <ul style="list-style-type: none"> • Addresses basic causes of malnutrition and creates an enabling environment. • Outlines health service delivery in preparedness and response to natural disasters and emergencies in SO11: <i>ensure effective preparedness and response to disasters and emergencies and social protection, led by multisector.</i> | | <ul style="list-style-type: none"> • No strong link between implementation and a positive or negative impact on climate change due to its small scale, (i.e., intercropping in a home garden may help improve soil quality but may not necessarily affect climate change). • Real contingency plans for nutrition interventions need to be developed. • Many are unaware of any interventions, especially those related to climate resilience in agriculture. |
| Environmental Health and Biodiversity | 1 | <ul style="list-style-type: none"> • Addresses basic causes of malnutrition and creates an enabling environment. • Environmental health and biodiversity are promoted via WASH interventions at both the school level (SO4) and the community level (SO2) • Sustainable natural resource use is promoted under agricultural interventions (SO3) and social behavior change communication (SO12). | <ul style="list-style-type: none"> • WASH interventions, e.g., open defecation free (ODF) positively impacts environmental health. | <ul style="list-style-type: none"> • Unimproved behaviors of rural communities and a lack of water access to enforce ODF has been observed. |

Table 4: Summary of normative coherence results for the Green and Sustainable Agricultural Framework (GSAF).

| Impact Area | Score | Evidence (Document Review) | Implementation Impact (KIs) | |
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| | | | Positive | Negative |
| Green and Sustainable Agricultural Framework (GSAF) | | | | |
| Food Security and Nutrition | 2 | <ul style="list-style-type: none"> • Food security and nutrition are related to GSAF's sub-sectors, including: 1) integrated crop-livestock systems, 2) environmentally sustainable weed and pest control 3), agro-ecological landscape management, 4) natural and sustainable nutrient inputs, and 5) post-harvest storage and processing facilities. | | <ul style="list-style-type: none"> • A lack of impact assessment meant many were unsure of GSAF contributions to food security and nutrition. • Organic vegetables may help improve nutritional diets. However, a premium on organic produce often prevents access among low-income households. • Promoting organic agriculture (OA) and good agricultural practices (GAP) is still voluntary, which may not affect conventional food production and security. |
| Poverty Reduction and Livelihoods | 2 | <ul style="list-style-type: none"> • GSAF sub-sectors aim to contribute to poverty reduction. • GSAF aims to promote a niche domestic, regional, and international market by promoting safe production and value-added processing, benefiting all key actors engaged in the value chain. | <ul style="list-style-type: none"> • Mixed results observed from OA and GAP production regarding income and sustainability (i.e., urban based farms performed well). • GSAF promotes OA and GAP to enhance Lao farmer competitiveness in relation to other countries in the region. | <ul style="list-style-type: none"> • A lack of impact assessment meant many were unsure of GSAF contributions to poverty reduction. |
| Gender, Youth and Social Inclusion | 1 | <ul style="list-style-type: none"> • GSAF does not include a gender aspect. • GSAF outlines the roles and responsibilities of different actors in value chains to help facilitate social inclusion. | <ul style="list-style-type: none"> • Gender equality in GSAF focuses on capacity building and empowering women's role-plays in agricultural value chains. • Women were observed participating in all development projects. | |

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| | | | <ul style="list-style-type: none"> • Lao Women’s Union local representative helped encourage women’s participation. | |
| Climate Adaptation and Resilience | 1 | <ul style="list-style-type: none"> • Doesn’t directly address climate change but aims to promote positive outputs for climate adaptation and resilience through alternative production systems (e.g., integrated and agroforestry). | <ul style="list-style-type: none"> • Agroforestry interventions help enhance forestry coverage and reduce slash and burn practices by swidden farmers. • Farmer group representatives believe OA contributes positively to the environment. • OA farmers are required to grow large fruit trees to facilitate farm ventilation and use their leaves for composting. | <ul style="list-style-type: none"> • No substantial evidence to prove that GSAF contributes to climate change as Lao PDR is implementing other relevant policies. |
| Environmental Health and Biodiversity | 1 | <ul style="list-style-type: none"> • GSAF promotes positive outputs to biodiversity and environmental health through its subsectors (e.g., protection of NTFPs conservation, environmentally friendly weed and pest control, production of natural and sustainable nutrient inputs). | <ul style="list-style-type: none"> • Farmer representatives found vegetable plots for OAs have increased earthworms, which is good for soil improvement and other animals around the plot (e.g., frogs). | <ul style="list-style-type: none"> • No substantial evidence to support GSAFs impact on biodiversity. |

Table 5: Summary of normative coherence results for the National Agro-biodiversity Programme and Action Plan (NAPB).

| Impact Area | Score | Evidence (Document Review) | Implementation Impact (KIs) | |
|--------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Positive | Negative |
| National Agro-biodiversity Programme and Action Plan (NAPB) | | | | |
| Food Security and Nutrition | 1 | <ul style="list-style-type: none"> Designed to support food security. Promote farming systems that directly contribute to food security (e.g., paddy rice-based agro-ecosystems and integrated agriculture systems). | <ul style="list-style-type: none"> Some believed the NAPB positively impacted food security as agro-biodiversity involves food production and previous practices on natural resource conservation and protection may not affect food sources of rural communities. A United Nations Development Programme (UNDP) biodiversity project in Savannakhet and Sayabouly in 2015/16 provided more food (vegetables and crops) for participating households. | <ul style="list-style-type: none"> No substantial evidence of the impact on food security. Concern for ineffective enforcement as some rural communities choose to apply chemical inputs to increase production despite the existence of natural insect predators. |
| Poverty Reduction and Livelihoods | 1 | <ul style="list-style-type: none"> Designed to support poverty reduction. Promotes farming systems that are also included in commercial agricultural production. | <ul style="list-style-type: none"> Traditional rice variety (Khao Kai Noi) commercialisation project and 2020 evaluation showed a positive contribution to poverty reduction for farmers. Project on Nam Theun National Park enabled villagers to earn income from selling bloom grass on their farmland. May open opportunities for ecotourism, seen as a good source of income generation for rural communities. | <ul style="list-style-type: none"> No substantial evidence of the impact on poverty reduction. |
| Gender, Youth and Social Inclusion | 1 | <ul style="list-style-type: none"> Missing specific gender elements. | <ul style="list-style-type: none"> Gender may not need to specifically be addressed under this context as promoting equal involvement between genders is part of the constitution and law. Development projects often targeted and promoted women's participation. | <ul style="list-style-type: none"> Implementation challenge in engaging youth as more young rural individuals aim to migrate away for employment in towns and other countries due to a lack of community incentives. |

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| Climate Adaptation and Resilience | 1 | <ul style="list-style-type: none"> • Agro-biodiversity and supporting ecosystems under NAPB are expected to contribute to the country's climate resilience (e.g., through reduction of runoff, flood control, and provision of potable water). | <ul style="list-style-type: none"> • Agro-biodiversity may indirectly contribute to climate adaptation through forest protection. • Resilience shown in drought tolerant rice seed multiplication project between UNDP and NAFRI. | <ul style="list-style-type: none"> • Unclear contribution of agro-biodiversity to climate adaptation (no evidence from evaluations). |
| Environmental Health and Biodiversity | 2 | <ul style="list-style-type: none"> • Designed to serve as the framework for agro-biodiversity conservation and management. • Three operational targets include: promote effective i) management, utilisation, and conservation of agro-biodiversity on aspects of the policy environment and legal framework, ii) capacity of the government and stakeholders, iii) implementation. | <ul style="list-style-type: none"> • Positively impacts biodiversity through organic agricultural practices and soil improvements by reducing chemical use. | <ul style="list-style-type: none"> • Needs to be implemented through more development projects to strengthen its impacts on biodiversity. |

Table 6: Summary of normative coherence results for Master Plan on Land Allocation (MPLA).

| Impact Area | Score | Evidence (Document Review) | Implementation Impact (KIs) | |
|----------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Positive | Negative |
| Master Plan on Land Allocation (MPLA) | | | | |
| Food Security and Nutrition | 2 | <ul style="list-style-type: none"> Objective 2: Aims to protect forest land to maintain balanced ecosystems and biodiversity, as well as the natural environment and water sources to supply land and water for the livelihood and food production of Lao people. Objective 3: Define the direction and targets of land use as a guide for the people's socioeconomic development and poverty eradication based on the local context and potential. Objective 4: Identify directions to facilitate national integration of land use by different sectors such as i) agricultural land, ii) forestry land, and iii) wetland. | <ul style="list-style-type: none"> MPLA understood as a national guide on land allocation to support food production and land security. | <ul style="list-style-type: none"> Implementation progress at the rural community level is not substantial. Concern about the upcoming land allocation at the community level raised as KI's learned that 3,000 villages (particularly in northern mountainous communities) live in protected forestry land. Without proper land surveys and community consultations, land allocation may affect the farming and living areas of these people. |
| Poverty Reduction and Livelihoods | 2 | <ul style="list-style-type: none"> Objective 2: Aims to protect forest land to maintain balanced ecosystems and biodiversity, as well as the natural environment and water sources to supply land and water for the livelihood and food production of Lao people. Objective 3: Define the direction and targets of land use as a guide for the people's socioeconomic development | <ul style="list-style-type: none"> At the macro level, MPLA could be good for national development facilitation through different concession projects in agriculture, livestock production, and mining. | <ul style="list-style-type: none"> Land allocation has not been completed in many rural communities. KI's unsure on the impact on poverty reduction for rural households. Concession projects might exploit protected land/forest areas due to the incomplete implementation of the land allocation. |

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| | | and poverty eradication based on the local context and potential. | | |
| Gender, Youth and Social Inclusion | 1 | <ul style="list-style-type: none"> Some specific gender elements are missing from the MPLA. | <ul style="list-style-type: none"> Couples are granted joint entitlements on their land certificates. Different sectors in the district formed a committee in which the Lao Women's Union and Lao Youth Organisation are involved to work on land allocation at the village level. TABI project example as good practice to engage men and women in land protection committees at the community level. Land certification issuance project had consultations with women and relevant groups in the community. | |
| Climate Adaptation and Resilience | 1 | <ul style="list-style-type: none"> Objective 5: Ensure that land is managed, protected, and developed efficiently, which benefits the country and the people. Clear target to achieve 70% total land for forest coverage and 30% for development utilisation. Land allocation by type for forest land covers conservation land, protected land, and production land. | <ul style="list-style-type: none"> MPLA aim on zoning for forest/land protection may have positive contribution to climate mitigation and adaptation. MAF is implementing a 2L/3L (Lao Landscapes and Livelihoods Project) to promote forest protection and rehabilitation which may contribute to climate adaptation in the long run. | <ul style="list-style-type: none"> No assessment of impact on climate change or adaptation. This would help inform impacts on soil quality and natural resource exploitation due to land concessions for development activities. |
| Environmental Health and Biodiversity | 1 | <ul style="list-style-type: none"> Objective 5: Ensure that land is managed, protected, and developed efficiently, which benefits the country and the people. Clear target to achieve 70% total land for forest coverage and 30% for development utilisation. | <ul style="list-style-type: none"> Land allocation may have a positive impact as a community will be aware of and know of protected and usable land zones and natural resources. Macroeconomic development activities may be subjected to development focus or trade-offs in economic advantage or natural protection. | <ul style="list-style-type: none"> Land allocation is yet to be completed so impacts on environmental health and biodiversity still need to be assessed. |

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| | | <ul style="list-style-type: none">• Land allocation by type for forest land covers conservation land, protected land, and production land.• Wetland covers land allocation across rivers, tributaries and watersheds. | | |
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Table 7: Summary of normative coherence results for Decree on Watershed Management (DWM).

| Impact Area | Score | Evidence (Document Review) | Implementation Impact (KIs) | |
|---------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Positive | Negative |
| Decree on Watershed Management (DWM) | | | | |
| Food Security and Nutrition | 2 | <ul style="list-style-type: none"> • Aims to manage and facilitate the utilisation and protection of water and water resources under a green growth direction. • Supports the country's socioeconomic development. • Outlines the management of water to facilitate the livelihoods of villagers and development projects. • Provides guidance on dealing with storing and releasing water from hydropower plants, water reservoirs, to ensure sufficient household utilities and agricultural production from irrigation. | <ul style="list-style-type: none"> • It has a positive impact on food security through its management and supply for irrigation. | <ul style="list-style-type: none"> • Limited implementation and lack of access to an impact assessment report by hydropower operators. |
| Poverty Reduction and Livelihoods | 2 | <ul style="list-style-type: none"> • Ensures the management and monitoring of water use and resources under a green growth direction to support the country's socioeconomic development. • Outlines the management of water to facilitate the livelihoods of villagers and development projects. • Guides water storage, hydropower generation, releasing water from hydropower plants to ensure sufficient agricultural production, industrial activities, and tourism. | <ul style="list-style-type: none"> • Irrigation, believed by some to be a crucial means of agricultural commercialisation, would help generate income and reduce poverty. | <ul style="list-style-type: none"> • Using irrigation for commercialisation is often practiced in lowland areas only. |
| Gender, Youth and Social Inclusion | 1 | <ul style="list-style-type: none"> • Gender elements are missing from the document. | <ul style="list-style-type: none"> • Gender measures are outlined in management plans or project activity plans. (E.g., An Asian Development Bank supported irrigation project required at least 45% of women to participate in the irrigation management committee). | |

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| Climate Adaptation and Resilience | 1 | <ul style="list-style-type: none"> • Follows article 19 of the Law on Water and Water Resources, including preventing soil erosion, droughts, and floods. • Estimates and determines the protected zones for water resources by outlining the establishment of hydrological stations to help forecast water levels and flows, which are helpful for agricultural production plans. | <ul style="list-style-type: none"> • Served as a document for planning purposes and for preventing and mitigating climate change effects around watersheds. • Measures included re-forestation and arranging suitable zones for industry activities and livelihoods of the surrounding communities. | |
| Environmental Health and Biodiversity | 1 | <ul style="list-style-type: none"> • Follows article 19 of the Law on Water and Water Resources, by surveying and making water source inventory to facilitate the management, protection, and development of water resources, including determining protected zones for water and water resources and water quality control. • Outlines associated factors on biodiversity by estimating protected zones for water and water resources (e.g., density and coverage of forests, diversity, and ecosystems data are monitored). • Guides water management resources to support villagers livelihood, development projects, and diversity. • Tracks water quality across water resources and reservoirs. | <ul style="list-style-type: none"> • Positively contributes to environmental health and biodiversity through water quality control. • Where water resources are maintained, biodiversity (e.g., aquatic animals and birds) is improved. | |

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