



LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

LAO PDR SECTORAL ADAPTATION STRATEGY MAINSTREAMING PLAN

UNDER THE NATIONAL ADAPTATION PLANNING PROCESS



2026

Department of Environment
MINISTRY OF AGRICULTURE AND ENVIRONMENT

Lao PDR Sectoral Adaptation Strategy Mainstreaming Plan (2026-2030) under the National Adaptation Process.

Prepared under the guidance of:

Department of Environment (DoE), Ministry of Agriculture and Environment, Government of Lao PDR

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ACKNOWLEDGEMENTS

The Government of the Lao People's Democratic Republic recognizes the critical importance of addressing climate change and its far-reaching impacts on socio-economic development, natural resources, and the livelihoods of communities across the country. As a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, Lao PDR has reaffirmed its commitment to strengthening climate resilience and advancing sustainable development pathways. These commitments are supported by national frameworks such as the Decree on Climate Change and the National Strategy on Climate Change to 2030, which set ambitious long-term objectives, including achieving net-zero emissions by 2050.

In this context, the Ministry of Agriculture and Environment (MAE), through its Department of Environment (DoE), is leading national efforts to integrate climate change adaptation across key sectors. Building on the National Adaptation Plan (NAP) and the Sectoral Adaptation Strategy and Action Plan developed for three sectors: Agriculture & Forestry, Water Resources, Urban Development & Transport, this Mainstreaming Plan provides a practical framework to support the integration of adaptation priorities into national and sectoral planning processes, public investment programming, and policy development.

The Mainstreaming Plan has been developed under the Green Climate Fund (GCF)-funded Readiness Support for Mainstreaming Climate Change Adaptation into Sectoral Planning project, implemented by MAE with technical assistance from the Global Green Growth Institute (GGGI). It builds on the findings of the Sectoral Climate Risk and Vulnerability Assessment (SCRVA) and the Sectoral Adaptation Plans (SAPs), and reflects inputs from sectoral focal points, government agencies, development partners and stakeholders across multiple sectors. This document aims to support government institutions in moving from planning to implementation by embedding climate risk considerations into existing governance systems. It provides guidance on how to integrate adaptation into policy frameworks, sector strategies, budgeting processes and investment pipelines, while strengthening coordination mechanisms across ministries and administrative levels. It also introduces practical tools and entry points to facilitate the operationalization of adaptation priorities within routine decision-making processes.

On behalf of the MAE, we would like to extend our appreciation to all ministries, agencies, and partners who contributed technical input and expertise throughout the development process. The MAE expresses its sincere gratitude to the GCF for its financial support and to GGGI for its technical assistance. The contributions of sectoral focal points, provincial authorities and all stakeholders involved in consultations and technical discussions have been instrumental in shaping this plan. The successful implementation of this Mainstreaming Plan will require sustained collaboration, institutional coordination and resource mobilization. Strengthening the alignment between climate priorities and development planning, as well as mobilizing finance, technology and capacity support, will be critical to ensure effective implementation. By embedding adaptation into national systems, Lao PDR aims to enhance resilience across sectors, reduce vulnerability to climate impacts, and support a more sustainable and inclusive development trajectory.

Yours Sincerely,



Mr. Aloune Sayavong
Department of Environment,
Ministry of Agriculture and Environment.

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ACRONYMS AND ABBREVIATIONS

CBA	Community-Based Adaptation
CRVA	Climate Risk and Vulnerability Assessment
CSO	Civil Society Organization
DALAM	Department of Land Administration and Management
DHUP	Department of Housing and Urban Planning
DMH	Department of Meteorology and Hydrology
DOE	Department of Environment
DOT	Department of Transport
DOR	Department of Roads
DOW	Department of Waterways
DPC	Department of Planning and Cooperation
DRM	Disaster Risk Management
DWR	Department of Water Resources
DWS	Department of Water Supply
EbA	Ecosystem-based adaptation
GCF	Green Climate Fund
GEDSI	Gender Equality Disability and Social Inclusion
GGGI	Global Green Growth Institute
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GOL	Government of Lao
IRWM	Integrated Water Resources Management
LDC	Least Developed Country
LNFD	Lao National Development Front
LWU	Lao Women Union
LYU	Lao Youth Union
MEL	Monitoring, Evaluation and Learning
MAE	Ministry of Agriculture and Environment
MCA	Multi Criteria Analysis
MIS	Management Information System
NAP	National Adaptation Plan
NAPA	National Adaptation Programme of Action
NBS	Nature-based solutions
NCCVA	National Climate Change Vulnerability Assessment
NDC	Nationally Determined Contribution
NGO	Non-Government Organizations
NPA	National Protected Area
NSEDP	National Socio-Economic Development Plan
NSCC	National Strategy on Climate Change
ODA	Official Development Assistance
PAE	Provincial Office of Agriculture and Environment
PPP	Public Private Partnership
PSEDP	Provincial Socio-Economic Development Plans
RCP	Representative Concentration Pathways
SAP	Sectoral Adaptation Plan
SDG	Sustainable Development Goal
SSP	Shared Socio-Economic Pathways
SWG	Sector Working Group
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nation Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

TERMINOLOGY AND DEFINITIONS

Adaptive Capacity: The ability of systems, institutions, humans, and other organisms to adjust to potential damage, take advantage of opportunities, or respond to consequences [1].

Climate Resilience: The capacity of social, economic, and environmental systems to cope with a hazardous event or trend, maintaining essential functions, identity, and structure while also adapting and transforming. [1].

Climate Scenario (SSP/RCP): Standardized projections used to describe possible climate futures based on greenhouse gas emission trajectories. **Representative Concentration Pathway (RCP)** represents climate modeling scenarios representing different greenhouse gas concentration trajectories adopted by the IPCC and **Shared Socioeconomic Pathway (SSP)** represents Scenarios describing possible societal futures used with RCPs to project climate impacts. [1]

Ecosystem-based Adaptation (EbA): The use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change. [2]

Exposure: The presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected [1].

Hazard: The potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources. In this report, the term hazard usually refers to climate-related physical events or trends or their physical impacts. [1].

Impacts: Effects on natural and human systems. The term impacts is used primarily to refer to the effects on natural and human systems of extreme weather and climate events and of climate change. Impacts generally refer to effects on lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure due to the interaction of climate changes or hazardous climate events occurring within a specific time period and the vulnerability of an exposed society or system. Impacts are also referred to as consequences and outcomes. The impacts of climate change on geophysical systems, including floods, droughts, and sea level rise, are a subset of impacts called physical impacts [1].

Mitigation: Efforts to reduce or prevent the emission of greenhouse gases or enhance carbon sinks to limit global warming. [1]

Nature-based Solutions (NbS): Actions that protect, sustainably manage, and restore natural or modified ecosystems to address societal challenges effectively and adaptively. [3]

Risk: The potential for consequences where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. Risk is often represented as probability of occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur. Risk results from the interaction of vulnerability, exposure, and hazard. In this report, the term risk is used primarily to refer to the risks of climate-change impacts [1].

Vulnerability: The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. [1].

EXECUTIVE SUMMARY

Lao PDR is increasingly exposed to climate risks, including floods, droughts, rising temperatures and extreme weather, that threaten economic growth, infrastructure, natural resources and livelihoods, particularly across agriculture and forestry, water resources, and urban development and transport. As these pressures intensify, climate adaptation is becoming a critical component of the country's development pathway.

Lao PDR has already strengthened its policy framework through the adoption of the National Adaptation Plan (NAP) 2025–2035, ongoing updates to the Nationally Determined Contribution (NDC), preparation of the 10th National Socio-Economic Development Plan (NSED) 2026–2030, and the development of Sector Adaptation Strategies and Action Plans (SAPs) 2026–2030. Together, these processes create an important opportunity to integrate resilience into the next development cycle.

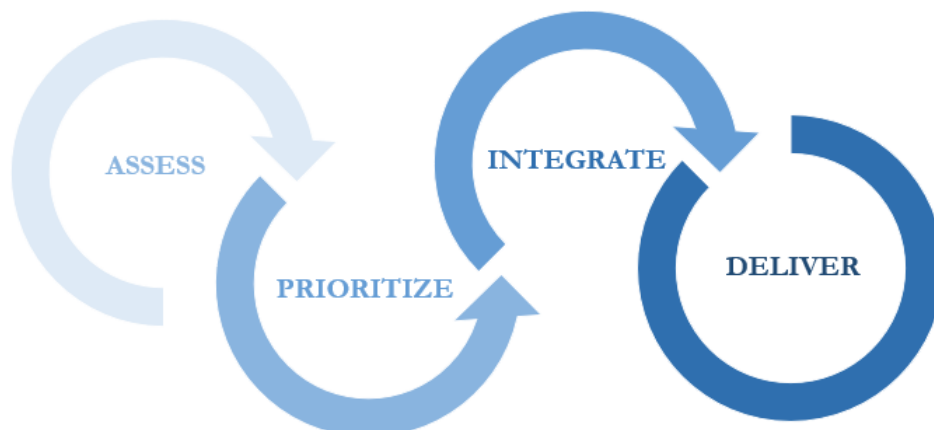
The SAP identifies six cross-cutting priorities that consistently emerged across sectors:

	Climate-resilient infrastructure and built environment
	Ecosystem-based and nature-based solutions
	Integrated land-use and territorial planning
	Climate data, early warning, and decision-support systems
	Institutional coordination and capacity strengthening
	Sustainable climate financing mechanisms

These themes offer practical opportunities for integrated action across ministries and levels of government.

It is recommended that Lao PDR build on existing planning, budgeting and coordination mechanisms to advance climate adaptation, rather than creating entirely new systems. This Mainstreaming Plan is designed to help translate these priorities into practical planning, budgeting, regulatory and investment decisions. It promotes a systemic approach in which climate risk management is embedded within existing government systems, providing a practical framework to support ministries, planning agencies, provincial authorities and development partners in moving from planning to implementation.

A simplified framework is presented below to guide the mainstreaming of climate adaptation into development planning and decision-making processes. It illustrates a progressive approach from assessing climate risks, to prioritizing adaptation actions, integrating these priorities into policy and investment systems, and ultimately delivering implementation on the ground. This framework is proposed as a practical reference to support ministries and stakeholders in structuring adaptation efforts across planning cycles.



ASSESS



Objective

Develop a shared understanding of climate risks, vulnerable sectors and institutional gaps that may affect implementation. This phase helps establish where adaptation priorities are most urgent and where mainstreaming can realistically begin.

Key Actions

- ✓ Consolidate evidence from SAPs, sector studies and risk assessments
- ✓ Identify vulnerable territories, sectors and exposed assets
- ✓ Map planning, budgeting and investment entry points

Outputs

Clear baseline for national mainstreaming priorities.

PRIORITIZE



Objectives

Translate identified adaptation needs into practical, sequenced and financeable priorities aligned with national and sector planning cycles. This phase supports realistic decision-making under limited resources.

Key Actions

- ✓ Rank priority measures for 2026–2030
- ✓ Prepare indicative costing and sequencing pathways
- ✓ Assign lead agencies and coordination responsibilities

Outputs

Priority pipeline of actionable adaptation measures.

INTEGRATE



Objective

Embed agreed priorities into existing government systems so adaptation becomes part of routine decision-making rather than a stand-alone agenda.

Key Actions

- ✓ Integrate priorities identified in NAP and SAP into the NSEDP, sector plans and PSEDPs
- ✓ Introduce resilience screening into public investments
- ✓ Update standards, guidelines and provincial planning tools

Outputs

Adaptation priorities reflected in planning and investment systems.

DELIVER



Objective

Implement priority actions, strengthen delivery capacity and monitor progress to ensure that planning translates into measurable resilience outcomes.

Key Actions

- ✓ Launch priority projects and pilot initiatives
- ✓ Strengthen provincial and sector implementation capacity
- ✓ Feed lessons learned into future planning cycles

Outputs

Visible adaptation results and continuous system improvement.

The report identifies five priority mainstreaming entry channels through which climate adaptation can be progressively institutionalized in Lao PDR:

1	NATIONAL DEVELOPMENT PLANNING FRAMEWORKS Climate priorities need to be <i>systematically</i> reflected in national planning instruments (such as the NSEDP), investment programming, and budget preparation processes. Without it, adaptation actions risk remaining stand-alone initiatives rather than influencing long-term development trajectories
2	SECTOR STRATEGIES AND REGULATORY FRAMEWORKS Adaptation priorities need to be mainstreamed through revisions of sector strategies and five-year plan, technical standards, and regulatory instruments. This may include updating sector specific standards, regulatory instruments and guideline to incorporate climate risk and resilience objectives.
3	SUBNATIONAL PLANNING AND SPATIAL INSTRUMENTS PSEDP, urban masterplans, and zoning regulations are operational entry points for integrating climate resilience at the territorial level. Strengthening the use of climate risk maps, ecosystem assessments and participatory planning approaches can support more resilient local development.
4	PROJECT PREPARATION, APPRAISAL AND DELIVERY SYSTEMS Climate adaptation can be mainstreamed across the project cycle from identification to design, appraisal, implementation and review. Feasibility studies and technical designs should integrate climate risk analysis and resilient standards. Post-project reviews can capture lessons learned for future investments.
5	MONITORING, REPORTING, AND NATIONAL CLIMATE COMMITMENTS Mainstreaming also requires aligning sector monitoring systems with national adaptation reporting frameworks under the NAP and NDC. Harmonized indicators, centralized monitoring platform and data collection mechanisms enable tracking progress and informing adaptive policy adjustments.

The analysis further highlights that Lao PDR does not need to create entirely new governance systems to advance mainstreaming. Existing coordination platforms, including mechanisms associated with the National Environment Committee (NEC), can provide useful foundations for alignment, oversight and cross-sector collaboration. However, stronger coordination between planning, finance, environment and sector institutions will be necessary to move from policy commitments to synchronized implementation.

To accelerate progress in the immediate term, the report recommends three strategic priorities:

- ▶ **Launch financing readiness measures** by converting SAP priorities into costed investment concepts, pipeline projects and climate finance opportunities.
- ▶ **Strengthen institutional coordination** through clearer mandates, regular inter-ministerial working arrangements and alignment with planning cycles.
- ▶ **Support subnational delivery capacity** through guidance, training, provincial pilots and stronger feedback loops between national and local levels.

Ultimately, climate adaptation mainstreaming should be understood as a long-term governance reform process rather than a one-off planning exercise. By embedding resilience into national plans, sector systems, territorial planning, public investments and reporting mechanisms, Lao PDR can progressively shift from isolated adaptation initiatives toward a more coordinated, financeable and resilient development model. This will strengthen the country's ability to safeguard growth, reduce vulnerability and achieve sustainable development objectives over the 2026–2030 period and beyond.

PART I: PURPOSE, PRINCIPLE AND APPROACH

1. Rationale for Climate Adaptation Mainstreaming

How is climate change impacting Lao PDR?

Lao PDR faces mounting climate risks that increasingly threaten the country's sustainable development trajectory and the resilience of its population. As identified in the Sectoral Climate Risk and Vulnerability Assessment (SCRVA) conducted under this assignment¹, the country's geographic diversity and strong socio-economic dependence on natural resources make it highly vulnerable to climate variability and extremes.

Observed trends include rising mean temperatures (approximately +1°C since 1950), shifting rainfall patterns, and an increased incidence of floods, droughts, landslides, and heatwaves. Rainfall patterns are becoming more erratic, with historical declines of over 200 mm annually and future projections indicating more intense wet-season rainfall and prolonged dry periods. These changes are already translating into intensified heatwaves, longer droughts, and shifts in seasonal cycles, posing significant risks to food and water security, ecosystems, and human health.

The CRVA further highlights increasing exposure across both rural and urban areas. Riverine flooding is exacerbated by altered rainfall-runoff dynamics and upstream hydropower development, while flash floods and landslides increasingly affect upland provinces. Urban centers are also exposed to flooding risks due to inadequate drainage systems and rapid urban expansion. The economic toll of these hazards is rising rapidly: between 2009 and 2018, annual losses from disaster events nearly quadrupled, from USD 94 million in 2009 to USD 371.5 million in 2018, equivalent to 2.1% of national GDP and 10.2% of the national budget in that year [3].

Readers are encouraged to consult the SCRVA for a more in-depth understanding of the risk analysis and evidence base underpinning the priorities and recommendations presented in this report. The SCRVA provides a comprehensive assessment of climate hazards, exposure and vulnerability across Lao PDR. It includes detailed analysis of climate trends and projections, sector-specific risk profiles for Agriculture and Forestry, Water Resources, and Urban Development and Transport, as well as cross-cutting assessments of socio-economic vulnerability and environmental pressures.

What is Climate Adaptation Mainstreaming?

Climate adaptation mainstreaming is the process of systematically integrating climate risk considerations, resilience priorities, and adaptation measures into regular decision making as well as national, sectoral, and subnational planning, budgeting, and implementation processes [4]. Rather than treating adaptation as a stand-alone project or separate environmental agenda, mainstreaming aims to ensure that climate resilience becomes embedded within core development decisions, including policies, investment planning, infrastructure design, public expenditure, and regulatory frameworks.

Systematically integrating climate risks into planning and investment decisions helps reduce climate-related damages and avoid costly retrofitting or recovery measures. In practice, mainstreaming involves reviewing policies, plans, and investment programs to ensure they remain effective under current and future climate conditions.

¹ The Mainstreaming plan is developed under the GCF-funded Readiness project drawing on findings of the Sectoral Climate Risk and Vulnerability Assessment (SCRVA) and the Sectoral Adaptation Plans (SAPs) developed during previous phase of the project.

Why Climate Adaptation Mainstreaming matters in Lao PDR?

Mainstreaming adaptation is critical for Lao PDR as it can help shift from isolated projects toward a systemic approach in which climate resilience is embedded across development planning, infrastructure design, regulatory frameworks, and public expenditure. This ensures that adaptation is not treated as an “add-on” but becomes operational within the next planning cycle.

Without deliberate integration, several risks may arise:

- Adaptation priorities may remain confined to technical reports and standalone initiatives;
- Public and private investments may proceed without adequate climate risk screening;
- Opportunities for coordinated cross-sector solutions and cost-effective resilience measures may be missed.

Lao PDR is currently at a critical policy window for strengthening climate resilience. The adoption of the new National Adaptation Plan (NAP) 2025–2035, together with preparation of the 10th National Socio-Economic Development Plan (NSED), creates a strategic opportunity to embed climate risk considerations into the country’s next development phase. In this context, the Sector Adaptation Strategies and Action Plans (SAPs) developed for key sectors provide practical sector-level priorities and implementation pathways to support NAP operationalization..

By aligning adaptation priorities with national development strategies, sector plans, and budgeting processes, mainstreaming can enhance synergies between climate resilience, economic development, and sustainable resource management. It can also strengthen ownership of adaptation actions across sectors and administrative levels, support the implementation of adaptation pathways, and facilitate access to financing for medium- and long-term resilience investments. Rather than creating parallel planning processes, the mainstreaming approach aims to embed climate resilience into existing policy, planning, budgeting, and investment frameworks at national and subnational levels.

2. Mainstreaming approach and principles

This Mainstreaming Plan aims to provide recommendations and serve as a practical guide to supporting the integration of the Climate Risk and Vulnerability Assessment findings and the priority actions identified in the Sectoral Adaptation Strategies and Action Plans (SAPs) into national and sectoral policy processes in Lao PDR. The Plan identifies practical processes, institutional entry points, coordination mechanisms and timing windows through which SAP priorities can be progressively translated into implementation. Its objective is to translate sectoral adaptation priorities into concrete policy, planning, and investment entry points within existing development frameworks.

Mainstreaming is expected to occur progressively through existing policy and management cycles. This includes:

- ▶ integration into national planning and review processes, including the NAP, NDC and NSEDP cycles;
- ▶ incorporation into sector strategies, five-year development plans and technical regulations;
- ▶ inclusion in public investment screening, project preparation and appraisal systems;
- ▶ alignment with annual budgeting and expenditure programming cycles;
- ▶ translation into provincial and local planning instruments;
- ▶ tracking through monitoring, reporting and performance review systems.

Objectives of the Mainstreaming Plan

The mainstreaming plan provides recommendations that identify strategic policy entry points and timing windows within national and sector planning processes and clarifies institutional roles and coordination mechanisms among ministries and planning bodies. By identifying strategic entry points for policy integration, the Mainstreaming Plan seeks to ensure that adaptation priorities move beyond technical assessments and become embedded in development planning and investment decisions.

The mainstreaming plan identifies practical processes, institutional entry points and timing windows through which SAP priorities can be progressively translated into implementation. The purpose of the Plan is therefore not only to identify relevant policy documents, but also to clarify **where, when and by whom** SAP priorities can be converted into practical actions across national, sectoral and subnational systems.

Scope of the Mainstreaming Plan

This Mainstreaming Plan focuses on three priority sectors for which a CRVA and Sectoral Adaptation Strategies and Plans were developed:

- Agriculture and Forestry (AF)
- Water Resources (WR)
- Urban Development and Transport (UrT)

These sectors were prioritized under the GCF Readiness project as they represent key areas of climate vulnerability and national development importance, and where targeted support can accelerate the integration of adaptation into planning, budgeting and investment processes. However, the approaches and tools developed through this Plan are also intended to provide a basis for replication and scaling across other sectors and planning contexts in Lao PDR.

Strategic Framework for Mainstreaming and Guiding Principles

The mainstreaming approach proposed in this plan is guided by a set of principles designed to ensure that adaptation priorities are effectively integrated into development planning and decision-making processes.

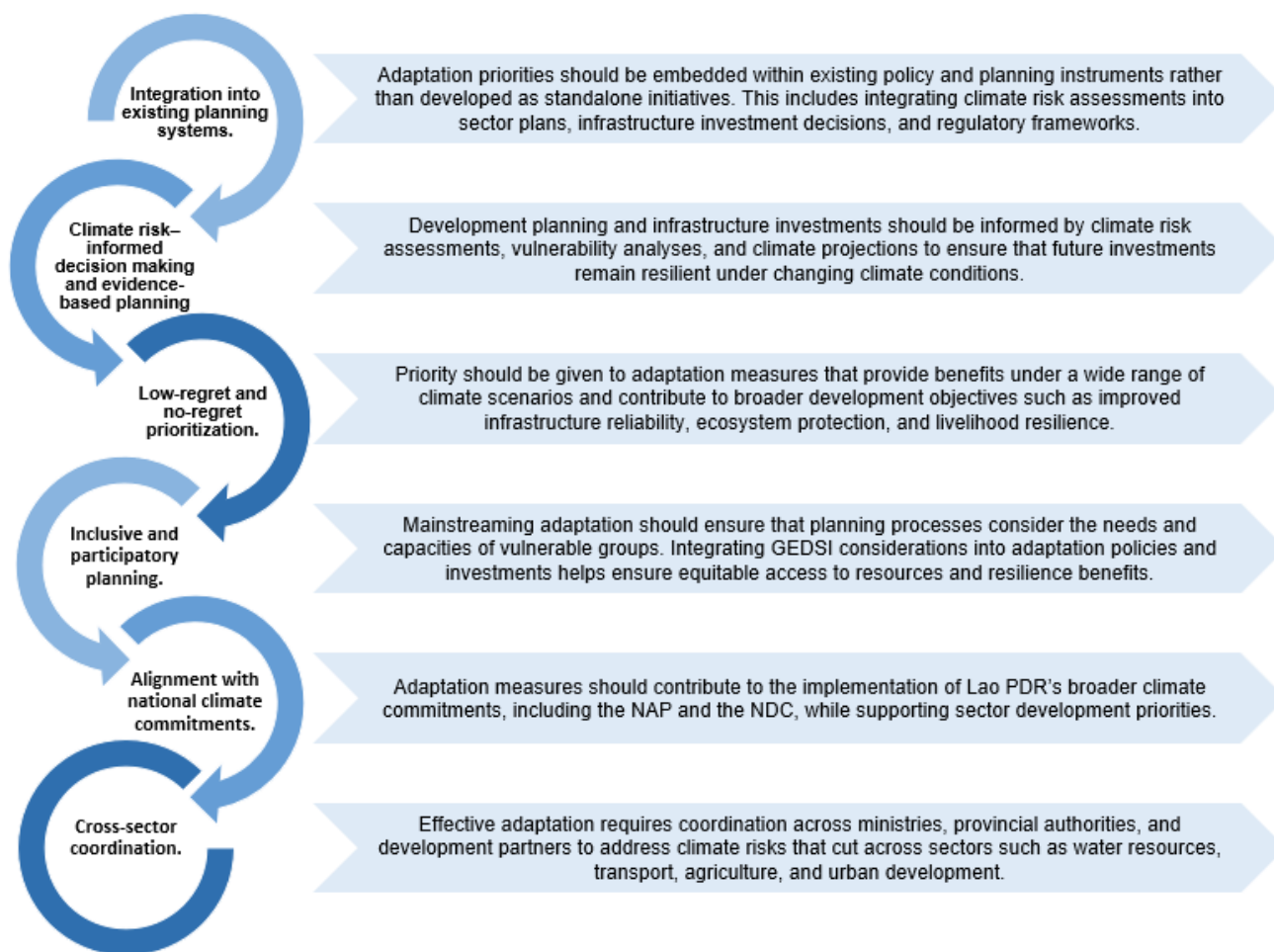


Figure 1: Guiding principles for the Mainstreaming Plan

Together, these principles provide the operational foundation for integrating climate adaptation into development planning and investment decisions across sectors in Lao PDR.

Achieving transformative and inclusive climate resilience in Lao PDR requires a structured and coordinated approach to integrate climate adaptation into sectoral planning and investment processes. Effective mainstreaming relies on several enabling conditions:

- Clear prioritization of costed adaptation measures and institutional responsibilities;
- Strong coordination across national climate frameworks (NAP, NDC) and national and sectoral development strategies;
- Monitoring and reporting systems aligned to track adaptation outcomes across sectors and administrative levels.

Climate adaptation mainstreaming can be undertaken in synergy with multiple government and investment processes, including decisions taken by central ministries, sector agencies, provincial authorities, development partners and project sponsors. These may include infrastructure planning, sector policy formulation, spatial planning, budgeting, project appraisal and local development programming.

This mainstreaming plan aims to provide recommendations alongside identified mainstreaming channels to support integration efforts while remaining flexible to responding to sector-specific challenges, institutional capacities, and local development priorities.

Box 1 - Good Practices – Key Ingredients for Successful Climate Adaptation Mainstreaming

Political and Institutional Readiness

Strong endorsement from senior leadership ensures that adaptation priorities are reflected in national strategies and sectoral plans. Clear mandates reduce fragmentation and accelerate integration.

- ☐ High-level endorsement secured
- ☐ Clear mandate to integrate adaptation into sector plans and budgets
- ☐ Inter-ministerial coordination mechanisms activated

Alignment with Planning Cycles

Mainstreaming is most effective when adaptation priorities are integrated at the right moment in policy cycles (e.g., during NSDEP preparation, 5-year sector planning, or NDC updates). Timing is a key enabling factor.

- ☐ Adaptation actions aligned with NSDEP, sector strategies, and annual workplans
- ☐ Entry points identified in policy revision and investment cycles

Clear Roles and Responsibilities

Defined roles across ministries and departments to prevent duplication and ensure accountability. Cross-sector coordination mechanisms are essential, especially for issues like water, land use, infrastructure, and ecosystems. Consultation with line ministries, provincial authorities, mass organizations and local communities increases legitimacy and feasibility of implementation.

- ☐ Lead and supporting institutions identified per action
- ☐ Coordination with mass organizations (LWU, LFND, LYU) defined
- ☐ Stakeholder consultations conducted
- ☐ Capacity-building needs identified
- ☐ Implementation guidance available at all levels

Financing and Investment Readiness

Adaptation options should be prioritized and annually revisited, based on feasibility, cost-effectiveness, and resilience benefits and opportunities. Providing indicative cost ranges and identifying financing pathways increases uptake. Mainstreaming succeeds when adaptation measures are linked to annual budgeting processes, public investment planning, and donor programming, not treated as standalone environmental actions.

- ☐ Shortlist of bankable / pipeline actions identified
- ☐ Potential funding sources identified (national budget, climate finance, ODA, PPPs, private where relevant)

Monitoring & Evaluation

Tracking adaptation progress through measurable indicators strengthens accountability and supports reporting under the NAP and NDC frameworks.

- ☐ Adaptation indicators defined
- ☐ Alignment with NAP reporting requirements
- ☐ Data collection responsibilities identified

3. How and by whom is this guide intended to be used?

It is recommended that this Mainstreaming Plan is primarily intended to support the Department of Environment (DoE), Ministry of Agriculture and Environment (MAE), as the lead institution responsible for climate adaptation coordination and follow-up of the Sector Adaptation Strategies and Action Plans (SAPs). It is designed as a practical tool to help translate SAP priorities into government planning, budgeting and implementation systems.

The Plan is expected to be used in close coordination with relevant line ministries responsible for sector delivery, particularly those concerned by three SAP developed under the GCF-funded Readiness project, including:

- Ministry of Public Works and Transport (MPWT);
- Ministry of Agriculture and Environment (MAE);
- Ministry of Finance (MoF);
- other relevant sector agencies.

At implementation level, the Plan may also support:

- Provincial and district authorities responsible for territorial planning and local delivery;
- Development partners and MDBs supporting technical assistance and financing;
- Technical working groups and coordination platforms;
- Project preparation entities and implementing agencies.

In practice, the guide can be used during sector plan revisions, annual budgeting cycles, project preparation, public investment screening, provincial planning exercises and progress reporting processes.

The guide can be used at different stages of the policy and investment cycle, including:

- ▶ During the preparation or revision of sector strategies and masterplans;
- ▶ When screening infrastructure investments and public investment proposals for climate risks;
- ▶ In the design of adaptation programs and project pipelines;
- ▶ When integrating adaptation priorities into budget planning and financing strategies;
- ▶ For monitoring and reporting on adaptation progress aligned with national frameworks.

By clarifying entry points, institutional roles, and recommended tools, this guide aims to support stakeholders in moving from identified adaptation priorities toward operational implementation within existing development systems. It also promotes coordination across sectors and administrative levels to ensure that climate resilience becomes a shared responsibility embedded in routine decision-making processes.

It is to be noted that additional SAPs have been and may further be developed beyond the scope of the GCF-funded Readiness project, such as the *Health National Adaptation Plan (H-NAP)* for building climate resilient health systems in Lao People's Democratic Republic 2025 - 2030. While these are not covered in this report, the present Mainstreaming Plan is designed to provide a structured and adaptable framework that can be used as a basis for mainstreaming adaptation to other sectors.

PART II: CURRENT ADAPTATION PLANNING CONTEXT AND LESSONS FROM THE SECTORAL ADAPTATION PLANS.

Lao PDR has made important progress in establishing climate adaptation policy and planning frameworks, including national strategies, sector planning processes and the recent development of Sector Adaptation Plans (SAPs). However, moving from planning commitments to systematic implementation remains a key challenge. This section reviews the current planning context and summarizes key lessons emerging from the SAP process to inform practical mainstreaming pathways.

1. Status of National Adaptation Planning

Lao PDR has progressively developed a set of climate and development planning instruments over the past decade. National adaptation planning has evolved from early framework development toward a more structured policy landscape combining climate commitments, sector priorities and national development planning objectives for the 2026–2030 period.

Key recent developments include:

- **Nationally Determined Contribution (NDC) 3.0:** The current NDC 2.0 has strengthened the visibility of adaptation priorities alongside mitigation commitments across key sectors. As the global community approaches the 2025 deadline for submitting the third round of Nationally Determined Contributions, Lao PDR is preparing its NDC 3.0 (targeting 2035). This process provides an opportunity to assess gaps and limitations in the current NDC framework and to further strengthen the integration of climate adaptation across sectors.
- ▶ **National Adaptation Plan (NAP) 2025–2035:** Adopted in July 2025, the NAP provides Lao PDR’s most comprehensive national framework for identifying climate risks, sector vulnerabilities and priority adaptation responses. It also supports stronger coordination across ministries and sectors.
- ▶ **10th National Socio-Economic Development Plan (NSED) 2026–2030:** The upcoming NSED will remain the principal national development planning framework, shaping investment priorities, infrastructure expansion and territorial development. It provides overarching guidance for advancing climate change adaptation priorities (as identified in the NAP), enabling sectoral and provincial development plans to align accordingly, particularly through the integration of adaptation-related policies and priorities.

Together, these frameworks establish a robust policy context for adaptation planning. The key challenge moving forward will be ensuring effective coordination, implementation and integration across routine planning, budgeting and investment systems.

Mainstreaming succeeds when adaptation priorities are integrated at the right moment within existing planning, budgeting and review cycles. National adaptation planning is currently at a critical policy window (2026–2030), transitioning from foundational frameworks to active integration into national growth targets.

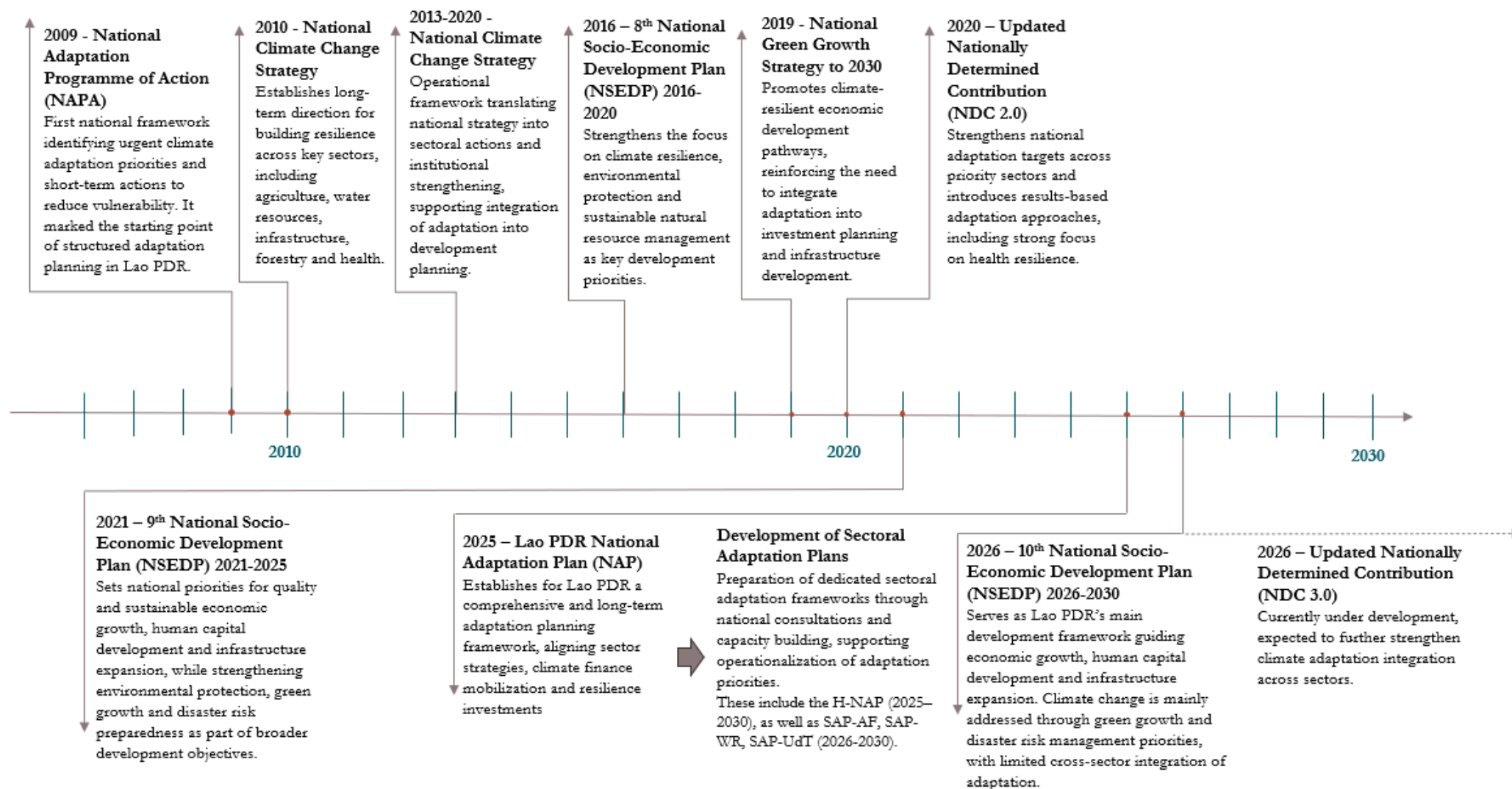


Figure 2: Key Milestones in Climate Adaptation Planning in Lao PDR

2. Overview of Sectoral Adaptation Planning in Lao PDR

Sector planning in Lao PDR is primarily structured through five-year development plans, sector strategies, annual workplans and public investment programmes prepared by line ministries and implemented in coordination with provincial authorities. These planning instruments remain the principal mechanisms through which national priorities are translated into sector objectives, budget allocations and implementation activities.

While planning systems are increasingly established across ministries, their level of institutional maturity, coordination capacity and implementation readiness varies by sector. Indeed, planning mechanisms provide a structured framework for translating national priorities into sectoral action; however, several challenges remain. Building on the findings of the *Situation Analysis Report* developed during the earlier phase of the GCF-funded Readiness project [5], these include coordination gaps across institutions and administrative levels, as well as inconsistencies in the alignment of sectoral strategies with national adaptation frameworks. In addition, the operationalization of adaptation priorities remains uneven across sectors, with varying levels of institutional capacity, limited integration into routine planning and budgeting processes, and gaps in monitoring, data availability and reporting systems. These factors collectively affect the effective implementation of adaptation measures.

Below is presented a focus on the three priority sectors identified through the GCF-funded Readiness project: Agriculture and Forestry, Water Resources and Urban Development and Transport.



AGRICULTURE & FORESTRY

Planning in the Agriculture and Forestry sector is strongly oriented toward ensuring food security, increasing productivity and promoting sustainable rural livelihoods. Key priorities identified in *MAF 5-Year Sector Development Plan (2021–2025)* include irrigation development, agricultural intensification, value chain development and market integration, alongside forest protection and land use planning [6]. The sector development plan demonstrates relatively advanced consideration of climate-related risks, with explicit attention to disaster risk management (e.g. floods and droughts) and the promotion of climate-resilient production systems [7]. While the sector benefits from relatively established planning structures, implementation capacity and maintenance financing may vary across provinces.



WATER RESOURCES

The Water Resources sector is primarily focused on strengthening water governance, resource management and regulatory frameworks. The sector is shaped by the strategic importance of rivers, hydropower, irrigation systems and water supply. Current planning priorities identified in *Department of Water Resources 5-Year Sector Development Plan (2021–2025)* include river basin management, water allocation, hydrological monitoring and the development of legal and institutional frameworks for sustainable water use [8]. The sector also emphasizes data generation and planning tools, such as basin-level assessments and groundwater studies [8]. While these provide a strong technical and institutional foundation, effective coordination across sectors and administrative levels remains critical for translating these frameworks into operational action.



URBAN DEVELOPMENT & TRANSPORT

Urban Development and Transport sector is largely driven by infrastructure development, urban expansion and the strengthening of national and regional connectivity. Key priorities identified in the *MPWT, 5-Year*

Sector Development Plan (2021–2025) include road and transport infrastructure, urban services, territorial planning and the modernization of transport systems [9]. Climate resilience is increasingly recognized, particularly in relation to infrastructure durability and safety, though its integration into planning and investment decision-making remains at an earlier stage compared to other sectors. As public investment expands, the sector presents significant opportunities to further embed climate adaptation into infrastructure design and urban development processes.

Overall, sectoral planning in Lao PDR demonstrates a solid foundation for advancing development priorities, with varying degrees of integration of climate adaptation considerations across sectors. At the same time, sectoral adaptation planning is progressing at different speeds across ministries, with recent planning processes showing increasing attention to resilience-related priorities. These differences highlight the need for a more systematic and coordinated approach to mainstreaming climate adaptation across sectors, building on existing planning systems while addressing current gaps in implementation, coordination and capacity. In this context, the Sector Adaptation Plans (SAPs) developed under the GCF-funded Readiness project aim to provide an explicit climate lens and support the translation of adaptation priorities into sectoral planning and implementation processes.

What the SAPs tell us: Cross-Cutting Adaptation Priorities

The Sectoral Adaptation Strategies and Action Plans (SAPs) developed for the Agriculture & Forestry, Water Resources, and Urban Development & Transport sectors along with the different consultations led with stakeholders between May 2025 and January 2026 highlighted several cross-cutting adaptation priorities, indicating strong opportunities for coordinated mainstreaming. Rather than addressing climate risks through isolated sector interventions, these shared priorities point toward structural transformation pathways that can guide national development planning. The emerging different cross-sector adaptation themes are the following:

	Climate-resilient infrastructure and built environment Across sectors, strengthening the resilience of infrastructure systems is identified as a priority. Climate risks increasingly threaten infrastructure performance and service continuity. Integrating climate risk screening into infrastructure planning, design standards, and investment programming therefore appears as critical to avoid future losses and ensure long-term functionality.
	Ecosystem-based and nature-based solutions The SAPs emphasize the importance of restoring natural buffers such as wetlands, riverbanks, forests, and urban green spaces to reduce climate risks while generating co-benefits for biodiversity and livelihoods. NbS can offer cost-effective alternatives or complements to engineered infrastructure and support improved watershed management, flood regulation, and urban cooling.
	Integrated land-use and territorial planning Unplanned urban expansion, settlement in high-risk zones, and land degradation increase exposure to climate hazards. SAP priorities highlight the need to integrate climate risk considerations into spatial planning instruments, zoning regulations, and urban development strategies to guide safer and more sustainable territorial development.
	Climate data, early warning, and decision-support systems Improved hydrometeorological monitoring, climate risk assessments, and GIS-based planning tools are recognized as essential enablers for informed decision-making.

	Strengthening data systems supports better prioritization of investments, enhances preparedness, and facilitates adaptive management under uncertain future climate conditions.
	Institutional coordination and capacity strengthening Effective adaptation requires coordination across ministries, administrative levels, and stakeholders. The SAPs consistently highlight the need to strengthen technical capacities, clarify institutional mandates, and establish coordination mechanisms to ensure coherent implementation and monitoring of adaptation actions.
	Sustainable climate financing mechanisms The implementation of SAP priorities depends on mobilizing diversified financing sources, including public investment, development finance, private sector participation, and blended financing approaches. Integrating adaptation priorities into public investment pipelines and sector financing strategies is therefore essential to translate planning into action.

Together, these themes provide a foundation for identifying mainstreaming entry points and structuring adaptation integration pathways across policy and investment systems.

The SAPs priority actions can be translated through different policies and institutional channels. Table 1 groups selected actions into practical mainstreaming categories to illustrate how adaptation measures may be integrated into existing government systems.

Table 1: Typology of Adaptation Measures for Policy Integration

Category	Example of Actions from SAPs	
Policy and regulatory reforms	<i>Laws and Regulations</i>	Action 6 SAP-WR: Strengthening Groundwater Registration and Management
	<i>Codes and Standards</i>	Action 1 SAP-UdT: Update and enforce climate-resilient building standards
	<i>Government policies and programs</i>	Action 13 SAP-AF: Promoting reforestation in high-risk areas
	<i>Sustainable financing mechanisms</i>	Action 5 SAP-WR: Develop and implement investment plans for urban and rural infrastructure.
	<i>Resilient land-use planning</i>	Action 10 SAP-UdT: Determination of high-risk urban areas (no-construction zones)
Infrastructure and investment priorities	<i>Engineered and built environment</i>	Action 3 SAP-WR: Construct small, medium and large community water supply systems
	<i>Technological solutions</i>	Action 2 SAP-AF: Define and design site-specific irrigation and technology programs
	<i>EbA / Nbs</i>	Action 11 SAP-UdT: Rehabilitates and manages waters, lakes and riverbanks
Capacity building & institutional strengthening	<i>Technical capacity development</i>	Action 12 SAP-UdT: Improve and build a model of a municipal garbage collection
	<i>Local governance strengthening</i>	Action 14 SAP-UdT: Raising community awareness of ecosystem conservation
Data, monitoring and MRV integration	<i>Early warning systems</i>	Action 12 SAP-WR: Expanding Meteorological and Meteorological Stations
	<i>Data integration</i>	Action 13 SAP-WR: Development of information systems and databases

3. Current Subnational Implementation Context

If national plans are the script, subnational systems are where implementation takes place. Provincial and District Offices such as PAEs, DAEs and DPWTs translate national priorities into local action. Provincial and district institutions play a central role in agriculture services, local infrastructure, land-use planning, environmental management and routine public services. Subnational authorities are also important for spatial planning and local risk management, including zoning, infrastructure maintenance and land management. Local governance structures, mass organizations such as LWU, and community organizations remain useful channels for citizen engagement, GEDSI inclusion, traditional knowledge and locally appropriate solutions.

In this context, a Subnational Adaptation Roadmap is currently being developed under the UN-Habitat GCF NAP Readiness project to support the translation of national adaptation priorities into subnational planning and implementation processes. The project supports the Government of Lao PDR in advancing its NAP by strengthening climate change adaptation planning at the subnational level [37]. It aims to enable national and subnational authorities to make informed adaptation decisions and catalyse investments that support sustainable development, with a focus on vulnerable communities in rural and emerging urban areas. This includes strengthening climate-informed territorial and urban planning and building institutional capacity to reduce climate vulnerability over the medium to long term.

Implementation capacity varies across territories. Key factors include staffing levels, technical expertise, access to finance, local coordination and planning data. These differences affect the consistency and pace of implementation across provinces and districts.

Overall, subnational systems are essential to policy delivery in Lao PDR, but their effectiveness depends on local capacity, coordination across administrative levels, and the ability to align national priorities with context-specific needs and implementation conditions.

PART III: TRANSLATING SAP PRIORITIES INTO MAINSTREAMING PATHWAYS

1. Mainstreaming Mechanisms

1.1. Planning Pathways for Mainstreaming

Climate adaptation mainstreaming is a continuous governance cycle rather than a one-off planning exercise. It requires translating national priorities into sectoral decisions, financing choices, and localized implementation, supported by ongoing institutional learning. This process ensures that resilience is not an external “add-on” but is built into the core functions of the state.

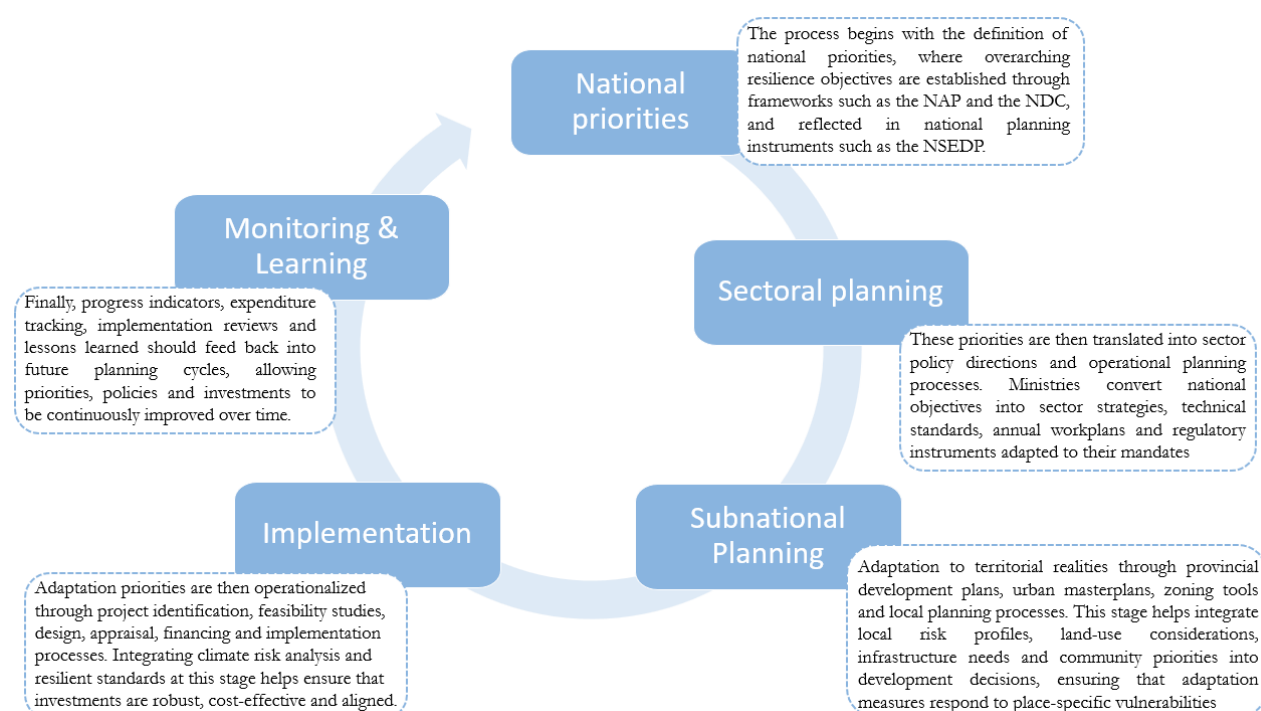


Figure 3: Recommended Governance cycle for mainstreaming climate adaptation

This cyclical approach illustrates that mainstreaming is an iterative system linking national vision, primarily the 10th NSEDP (2026-2030), with sectoral action, territorial delivery and adaptive learning. Following the 2025 government restructuring, which streamlined the administration from 17 to 143 ministries, the pathways for integration have become more centralized. The consolidation of agriculture, forestry, and environment into the MAE, and the integration of planning functions into the MOF, provides a unique opportunity to align climate resilient investments with national budgetary cycles.

Figure 4 below serves as a practical framework to understand how climate adaptation can be systematically mainstreamed across planning levels in Lao PDR. It highlights the key entry points within national, sectoral and subnational systems through which adaptation priorities can be integrated into policies, strategies and investment decisions. By clarifying the relationships and alignment mechanisms between planning instruments, the figure supports stakeholders in identifying where and how SAPs can influence existing processes. It also emphasizes the importance of implementation and monitoring, evaluation and learning (MEL) systems as part of an iterative cycle, enabling continuous feedback, adjustment and strengthening of adaptation actions over time.

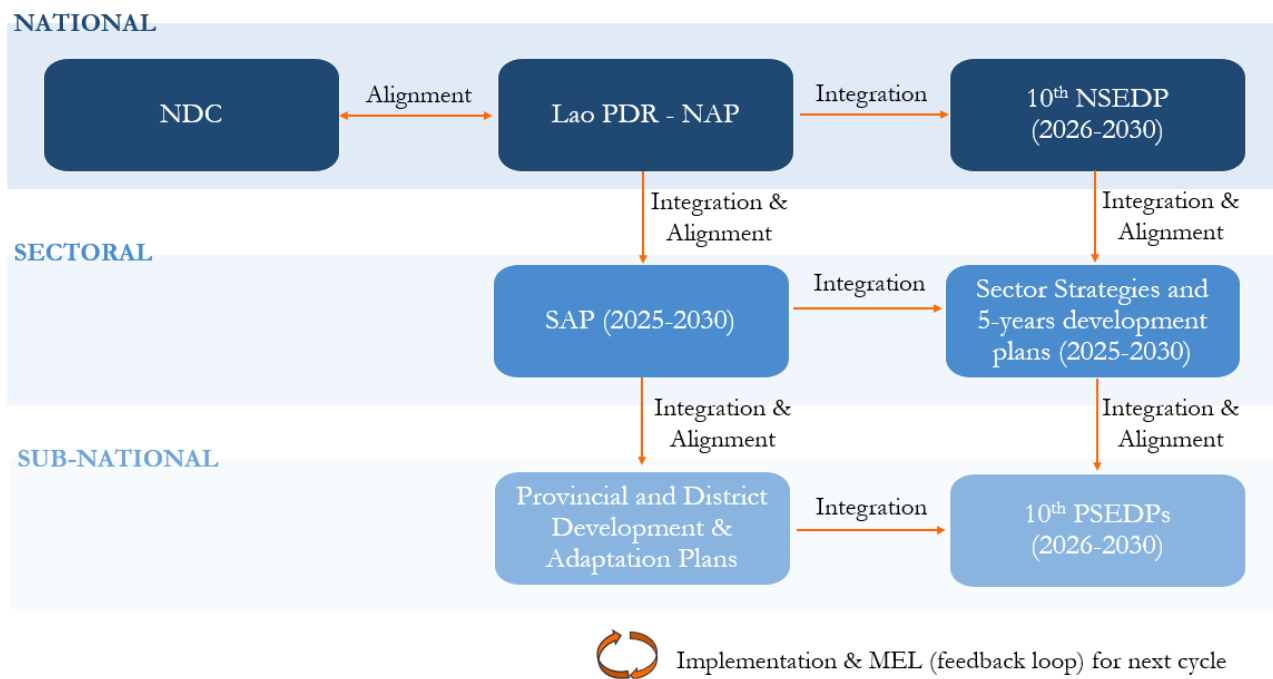


Figure 4: Indicative Alignment Between National, Sectoral and Provincial Planning Instruments in Lao PDR

The primary entry points for mainstreaming include:

- **Joint Sectoral Review:** Harmonizing SAP priorities with the finalized 10th NSEDP targets and sectoral strategies, ensuring alignment between national adaptation objectives and sector planning frameworks.
- **Annual Budgeting Cycles:** Integrating climate adaptation into resource allocation processes through climate budget tagging and alignment with Ministry of Finance (MoF) budgeting structures, enabling SAP priorities to be translated into funded actions.
- **Provincial Implementation:** Translating national and sectoral priorities into subnational planning and delivery, through provincial and district development plans, consultative processes, and locally adapted implementation mechanisms.

Given the central role of these alignment mechanisms in operationalizing climate adaptation, the following section 2. Mainstreaming Entry Channels provides further details on the key entry points and processes through which mainstreaming can be effectively achieved.

While the new ministry structure reduces institutional fragmentation, the transition requires active coordination to ensure that legacy sectoral silos are replaced by unified, climate-responsive workflows. Identifying these linkages early in the 2026-2030 planning phase is essential to avoid delays and ensure that adaptation efforts are effectively financed and monitored.

1.2. Institutional Roles & Responsibilities

Across all sectors, effective adaptation mainstreaming relies on coordination in Lao PDR relies on coordination across key institutions and planning levels. The Ministry of Agriculture and Environment (MAE) plays a central role in providing strategic oversight of adaptation policy, including through the National Adaptation Plan (NAP), while sector ministries are responsible for integrating adaptation priorities into sectoral strategies, investment planning and implementation. The Ministry of Finance (MoF) supports the integration of adaptation into budgeting, public investment planning and resource allocation processes. Provincial and district authorities are responsible for translating these priorities into local planning processes and service delivery.

Effective mainstreaming therefore depends on clear coordination mechanisms and alignment across national, sectoral and subnational levels, ensuring that adaptation priorities are consistently reflected in planning, budgeting and implementation processes. This multi-level institutional system requires well-defined roles and collaboration across ministries, sector agencies and subnational authorities. Table 2 provides an indicative overview of the principal actors involved in climate adaptation mainstreaming in Lao PDR and their complementary roles.

Table 2: Indicative Stakeholder Roles for Climate Adaptation Mainstreaming in Lao PDR

Stakeholder	Core Mandate in Mainstreaming	Key Responsibilities
MoF	National planning, budgeting, investment allocation	Integrate adaptation into NSEDP cycles, budget ceilings, project appraisal, public investment decisions
MAE	Climate policy leadership	Lead NAP implementation, climate guidance, indicators, reporting, risk tools
Sector Ministries	Sector planning and implementation	Revise sector plans, standards, identify pipelines, execute projects
Provincial Authorities	Territorial delivery	Provincial planning, local prioritization, implementation, reporting
District / Municipal Authorities	Local service delivery	Urban planning, zoning, maintenance, community engagement
Development Partners / MDBs	Finance and technical support	Co-financing, safeguards, capacity building, project preparation
Academia / Technical Agencies	Evidence and data	Climate scenarios, research, modelling, evaluations
Civil Society / Communities	Inclusion and accountability	Local knowledge, participation, vulnerability identification
Private Sector	Investment and innovation	Resilient supply chains, PPPs, insurance, technology

Given the newly consolidated structure of MAE, effective mainstreaming may require a “Joint Task Force” or “Working Group” approach integrating planning, finance, and technical departments. In this context, Sector Working Groups (SWGs), established under the national development coordination framework, represent a key operational entry point for mainstreaming, as they convene line ministries and development partners to align sector priorities, review progress and inform investment decisions [21].

Rather than establishing parallel arrangements, the mainstreaming process should build existing coordination and planning mechanisms, including the National Environment Committee (NEC) as a high-level platform for policy oversight and alignment, as well as the NSEDP formulation and review process and annual planning and budgeting cycles. These mechanisms are embedded within the Government’s planning and public financial management systems and provide structured entry points for integrating climate adaptation into sectoral and investment decision-making [22].

Figure 5 presented below illustrates the coordination mechanisms of the NEC and its role in bringing together key ministries, technical bodies and subnational actors to support climate adaptation governance in Lao PDR. It highlights how coordination is structured across national and local levels, providing an institutional platform for aligning policies, planning processes and implementation efforts.

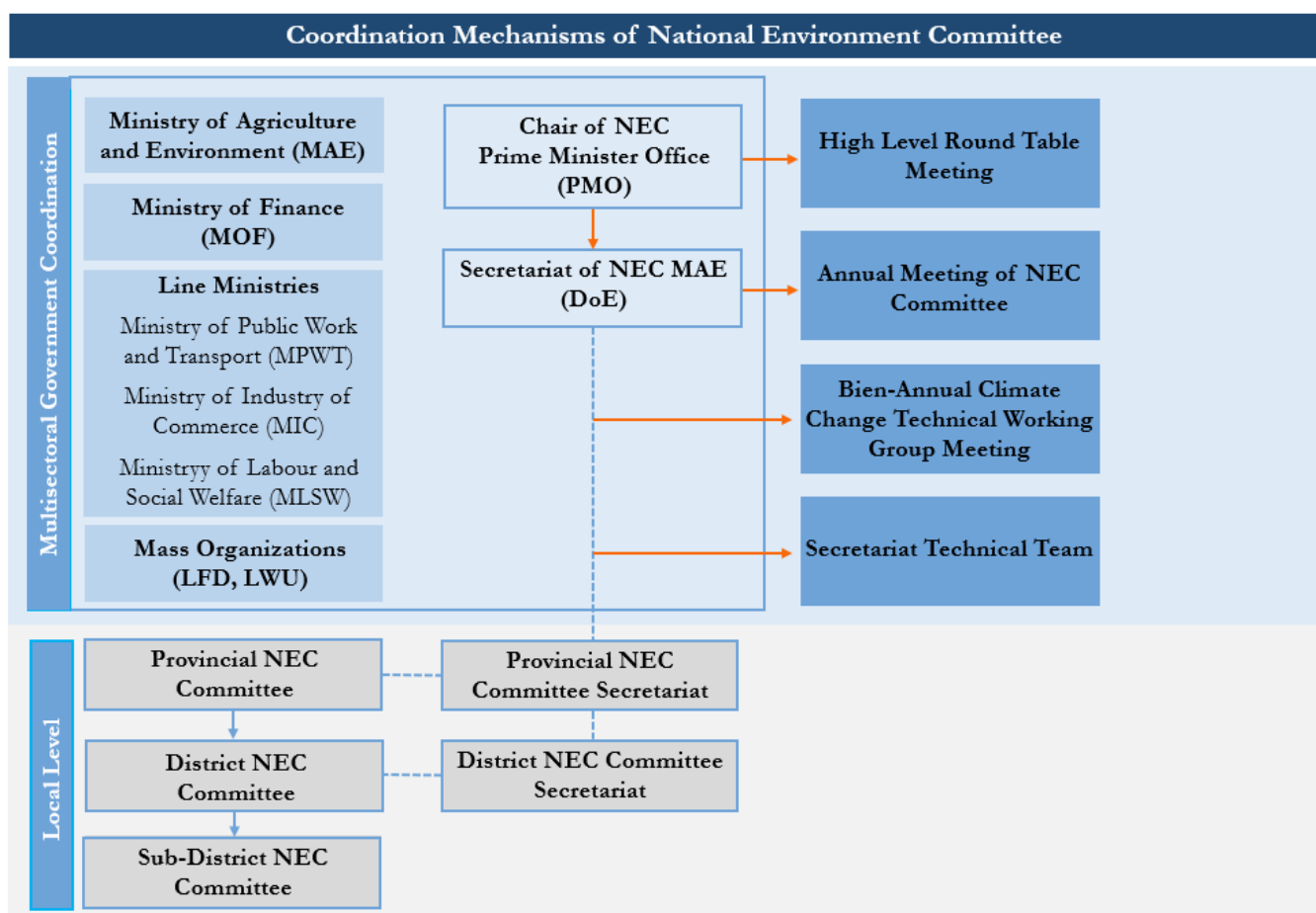


Figure 5: Existing Coordination Architecture of the National Environment Committee (NEC) [22]

While Lao PDR benefits from existing institutional coordination structures, a key challenge remains translating coordination into synchronized implementation in practice. Common constraints include the need for unified data systems across newly merged departments and the requirement for “Resilience Generalist” training for subnational staff.

To support this transition, coordination mechanisms will be strengthened through:

- Joint Sectoral Planning Review: Prioritizing the alignment of SAP priorities with the 10th NSEDP targets and its sectors as the primary entry point for 2026.
- Unified Monitoring & Evaluation: Establishing a single MEL dashboard within MAE to track cross-sectoral resilience indicators (e.g., linking forest health to water utility security).
- Consolidated Provincial Feedback: Strengthening the reporting loops from the new Provincial Offices of Agriculture and Environment (PAE) to central ministries.
- Synchronized Investment Screening: Implementing harmonized climate-risk and GEDSI screening procedures for all public investment decisions managed by the MoF.

2. Mainstreaming Entry Channels

Building on the governance cycle and stakeholder roles outlined above, effective mainstreaming depends on integrating climate adaptation into existing government systems for planning, budgeting, regulation and implementation. In the Lao PDR context, five priority entry channels are identified below to ensure a systemic transition toward resilience. These entry channels refer to the main institutional and planning systems through which integration can occur, within which more specific moments or opportunities for action may also arise.

1	NATIONAL DEVELOPMENT PLANNING AND POLICY FRAMEWORKS Strategic Focus: Climate priorities must be systematically embedded into the implementation phase of the 10 th NSEDP. This channel focuses on high-level policy alignment and ensures that the National Public Investment Program (PIP) and national budgeting processes reflect and allocate resources long-term climate-resilient trajectories. Key Instruments: 10 th NSEDP implementation plan, PIP. Lead Institutions: MoF, MAE, the Prime Minister's Office
2	JOINT SECTORAL PLANNING AND REVIEW Strategic Focus: Given the nearly finalized status of the 10 th NSEDP (2026-2030), the immediate priority is a joint review to align the SAP with national targets and ensure sector 5-years development plans and strategies integrate adaptation consideration. This ensures that formerly separate developments (Agriculture, Forestry, Environment, Water) operate under a unified resilience mandate. Key instruments: 5-years sectoral development plans, annual work plans and budget, SWG mechanism. Lead Institutions: MAE (Technical Lead), MOF (Planning Lead)
3	SUBNATIONAL PLANNING AND OPERATIONALISATION Strategic Focus: This channel translates central mandates into territorial action, ensuring that climate adaptation priorities are integrated into provincial and district planning, land-use decisions and local investment processes. It links climate resilience to secure land tenure and spatial planning, integrating systematic land registration and village-level social audits into provincial land use updates. Key Instruments: PSEDPs, District Development Strategies. Lead Institutions: Provincial and district authorities, local sector departments, MOF.
4	PROJECT PREPARATION, APPRAISAL AND DELIVERY SYSTEMS Strategic Focus: Adaptation can be mainstreamed across the project cycle. Appraisal criteria within the MoF should mandate climate risk analysis, resiliency standards and the application of GEDSI safeguards. Post-project reviews can capture lessons learned for future investments. Key Instruments: PIP, project appraisal guidelines, Feasibility studies, climate risk screening tools, technical design standards, MoF budget allocation processes, post project evaluation framework. Lead Institutions: Implementing agencies, development partners, MOF, sector ministries.
5	MONITORING, REPORTING, AND NATIONAL CLIMATE COMMITMENTS Strategic Focus: This channel focuses on creating a unified data ecosystem. Sector monitoring must feed into a single dashboard to track national climate commitments NAP and NDC. The 2026 High-Level Round Table Implementation Meeting (RTIM) serves as the primary forum for reporting progress. Key Instrument: National MEL Framework, Annual Round Table Reports. Lead Institutions: MOF, MAE, and the Round Table Meeting Secretariat.

1

National development planning frameworks

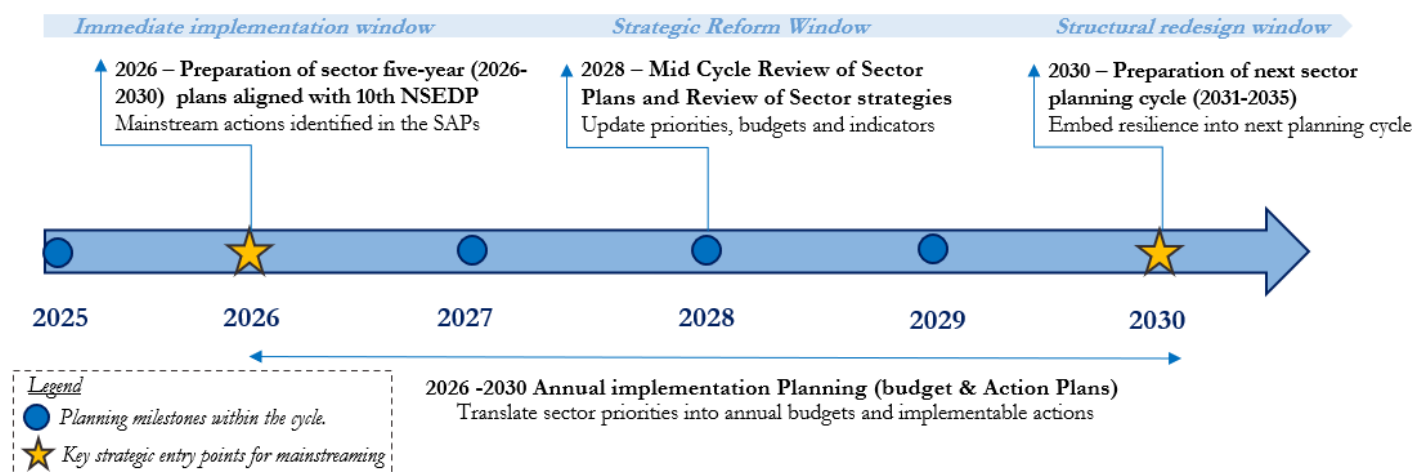
Strategic Entry Points within the 10th NSEDP Cycle

As Lao PDR's principal national development framework, the NSEDP shapes sector priorities, public expenditure allocation, annual implementation planning and provincial development directions. Integrating climate adaptation within this framework is essential to move from stand-alone initiatives toward economy-wide resilience.

Mainstreaming Opportunities

The 10th NSEDP recognizes environmental sustainability and disaster preparedness, but climate adaptation is not yet fully operationalized as a core driver of investment prioritization, sector transformation and territorial planning. As endorsement is already advanced, opportunities for major structural revisions in the immediate term are limited. However, substantial opportunities remain through annual implementation plans, the 2028 mid-term review, and early preparation of the 11th NSEDP.

Mainstreaming Window



Opportunity 1 –

Annual Implementation Plans

- ☐ Integrate SAP priorities into ministry annual plans
- ☐ Align annual budgets with NAP / SAP actions
- ☐ Include resilience indicators in ministry reporting
- ☐ Request progress updates on adaptation delivery

Opportunity 2 –

Mid-Term Review

- ☐ Review progress on resilience commitments
- ☐ Update targets, indicators and priorities
- ☐ Strengthen cross-sector adaptation actions
- ☐ Improve institutional coordination mechanisms

Opportunity 3 –

Preparation of 11th NSEDP

- ☐ Position resilience as a national growth priority
- ☐ Integrate adaptation across productive sectors
- ☐ Strengthen territorial resilience planning
- ☐ Align with updated NAP, NDC and financing needs

Cross-Government Leadership Needed

Effective mainstreaming into the NSEDP cycle requires close coordination between:

- **MoF** – national planning functions, budget ceilings, investment prioritization
- **MAE** – climate policy leadership, adaptation guidance, national reporting
- **Sector ministries** – sector priorities, implementation pipelines, annual plans
- **Provincial authorities** – territorial implementation and feedback

Box 2 - Good Practices Example:
Bangladesh – Integrating Climate Resilience into Public Investment Systems

Bangladesh provides a strong example of how climate adaptation can be mainstreamed through public investment management systems rather than delivered only through stand-alone climate projects. Over the past decade, climate resilience considerations have progressively been integrated into national planning processes, public finance systems, project appraisal mechanisms and sector investment frameworks [22].

Climate-related risks and resilience benefits are increasingly considered during project preparation and approval stages, helping prioritize investments that reduce long-term vulnerability and economic losses. Bangladesh has also introduced climate budget tagging and expenditure tracking mechanisms to better align public spending with national adaptation and resilience priorities [22].

In parallel, long-term strategic initiatives such as the Bangladesh Delta Plan 2100 help connect infrastructure planning, water management, agriculture and territorial resilience within a coherent investment vision, linking short-term project decisions with long-term climate objectives [23].

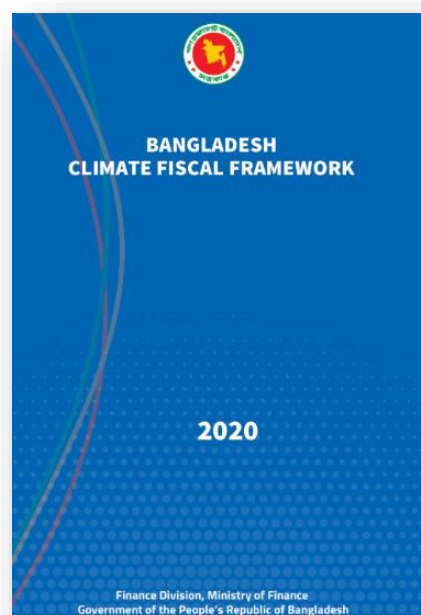


Figure 3.1: Interpreting the Investment Plan Graphic

Hotspot Color Code		Icon Code		
Coastal Zone		\$	\$	\$
Rivers and Estuaries		Capex < \$50 mil	\$50 mil < Capex < \$1,300 mil	Capex > \$1,300 mil
Urban Areas				
Barind and Drought Prone		Preventing too much water theme	Supplying sufficient quantity of water theme	Supplying sufficient quality of water theme
Chittagong Hill Tracts				
Haor and Wetlands				
Cross Cutting				
Project Phasing Code		0+	1	2
Feasibility Study		Cluster 0+	Cluster 1	Cluster 2
Construction Period				
Operating Period		CCAP Program	Potential for Public-Private Partnership	Knowledge/Capacity Building Project

Key Takeaways for Lao PDR

Bangladesh's experience shows that climate mainstreaming becomes more effective when resilience is embedded into core planning, budgeting and investment systems rather than treated as a separate environmental agenda.

For Lao PDR, relevant lessons include:

- ✓ introducing climate screening criteria within public investment preparation and appraisal procedures;
- ✓ strengthening climate-responsive budget allocation and expenditure tracking;
- ✓ linking long-term resilience priorities with annual and medium-term investment planning;
- ✓ improving coordination between planning, finance and sector ministries;
- ✓ prioritizing climate-smart infrastructure in high-risk sectors

2

Sector strategies and regulatory frameworks

Zoom Sector Planning Cycles

Mainstreaming Opportunities

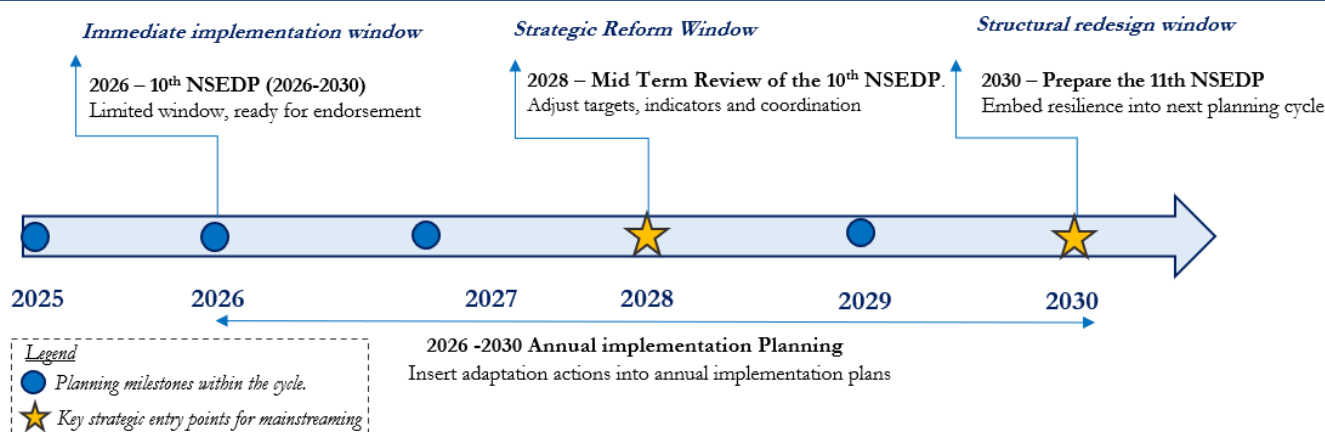
Sector strategies and five-year plans are key entry points for mainstreaming adaptation in Lao PDR, as they shape sector investments, infrastructure priorities and service delivery. Updating these instruments helps embed resilience into day-to-day sector governance rather than stand-alone projects.

The sectoral ministries already have sector planning instruments in place:

- ◆ MAF 9th 5-Year Agriculture, Forestry and Rural Development Plan (2021–2025)
- ◆ MPWT 5-Year Development Plan (2021–2025)
- ◆ Water Resources Strategy to 2030 / Vision 2040

However, adaptation priorities are not always systematically reflected in those. Strong opportunities exist during preparation of the next generation of five-year sector plans, annual workplans, technical guideline updates and periodic sector performance reviews.

Mainstreaming Window



Opportunity 1 – Preparation of sector Five-year (2026-2030)	Opportunity 2 – Annual Sector Workplans and Budgets	Opportunity 3 – Mid-Term Sector Performance Review	Opportunity 4 – Preparation of sector Five-year (2031-2035)
☐ Integrate SAP priorities into sector objectives, outputs and investment priorities ☐ Include climate evidence from CRVA and sector data ☐ Define measurable resilience indicators aligned with NAP targets ☐ Prioritize vulnerable provinces, services and populations	☐ Insert adaptation actions into annual workplans ☐ Prioritize resilience measures or budget tagging in annual budgets ☐ Include adaptation indicators in annual reporting ☐ Mobilize partner financing for priority actions ☐ Review progress and resolve bottlenecks	☐ Assess implementation progress of resilience actions ☐ Identify bottlenecks and financing gaps ☐ Adjust priorities based on new climate evidence ☐ Scale successful pilots and good practices	☐ Integrate resilience as a core sector objective ☐ Align with updated NAP / NDC priorities ☐ Update targets using lessons from previous cycle ☐ Strengthen climate finance and investment pipelines ☐ Revise standards, regulations and planning tools

Cross-Government Leadership Needed

Effective mainstreaming across sector strategies requires coordination between **sector ministries** (policy ownership, implementation and standards), MoF (planning alignment, budget allocation and investment review) and **MAE** (climate guidance, adaptation indicators and NAP & SAPs alignment)

Box 3 - Good Practices Example abroad:
Vietnam – Mainstreaming Climate Change through Sector Strategic Plans

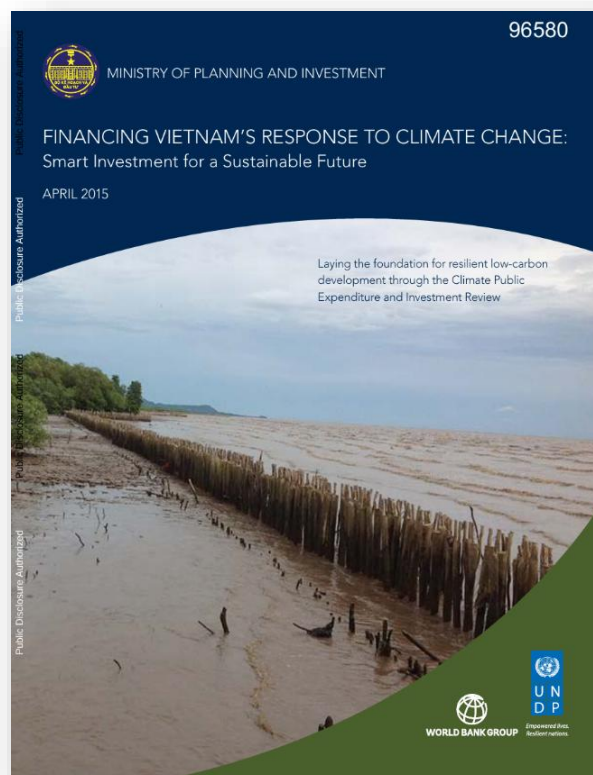
Viet Nam provides a strong regional example of how national climate commitments can be translated into operational planning systems across sectors, ministries and provinces. Rather than relying only on stand-alone climate projects, adaptation and green growth priorities have progressively been embedded into sector strategies, technical regulations, long-term masterplans and subnational planning.

This approach is supported by a structured planning cascade combining national strategies, sector implementation plans and provincial delivery mechanisms. Climate-related priorities are increasingly integrated into water resources management, agriculture, transport, construction, urban development and disaster risk management systems [24][25].

For example, Viet Nam has adopted national water resource masterplans (e.g. *Prime Minister's Decision No. 1622/QĐ-TTg Approving the Plan of Water Resources for 2021 - 2030, with a Vision to 2050*), inter-provincial river basin plans (e.g. *Plan For Development Of The Mekong Delta Region For The 2021 – 2030 Period With Vision Towards 2050*), irrigation and disaster prevention plans, followed by ministry implementation decisions and provincial planning integration [26] .

In parallel, the National Green Growth Strategy is operationalized through sectoral action plans, provincial green growth plans, indicators and periodic progress reporting [25].

This layered governance model helps clarify institutional responsibilities, align investment priorities with climate risks, and support more systematic implementation at local level.



Key Takeaways for Lao PDR

Viet Nam's experience shows that national adaptation priorities become more effective when translated into sector mandates, regulations and technical planning instruments. For Lao PDR, relevant lessons include:

- ✓ requiring priority ministries to integrate adaptation into sector strategies and five-year plans;
- ✓ developing sector-specific technical standards and implementation guidelines;
- ✓ using provincial plans to operationalize national priorities;
- ✓ linking national climate objectives with sector investment pipelines;
- ✓ establishing reporting cycles and indicators for implementation progress;
- ✓ strengthening coordination between central agencies and provinces.

3

Subnational planning and spatial instruments

Zoom on Provincial, District and Urban Planning Systems

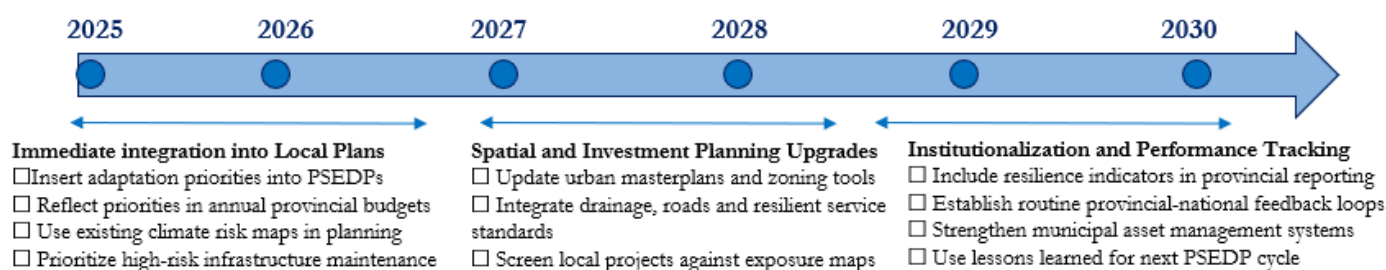
Subnational planning and spatial instruments are essential for mainstreaming adaptation in Lao PDR, as many climate risks are territorial and require place-based responses through land-use planning, infrastructure management and local service delivery systems.

Mainstreaming Opportunities

Provincial socio-economic plans (PSEDPs), district development strategies, urban masterplans and zoning tools provide practical entry points to integrate flood risk, heat stress, watershed protection and resilient infrastructure priorities into local development decisions. Adaptation can be mainstreamed during plan preparation, land-use updates, local investment programming and annual budgeting cycles.

Mainstreaming Window

Use the 10th NSEDP period to strengthen climate-smart provincial and local planning systems



Opportunity 1 – Risk-Informed Territorial Planning	Opportunity 2 – Urban and Local Infrastructure Planning	Opportunity 3 – Local Budgeting and Programming	Opportunity 4 – Community Engagement
☐ Use climate risk maps in land-use planning ☐ Protect ecological buffers and hazard-prone areas ☐ Direct growth away from high-risk zones	☐ Prioritize drainage, resilient roads and service networks ☐ Integrate climate standards in municipal assets ☐ Upgrade informal or high-risk settlements where relevant ☐ Improve maintenance planning for local infrastructure	☐ Include adaptation actions in annual plans ☐ Prioritize maintenance of vulnerable infrastructure ☐ Mobilize donor support for local resilience projects ☐ Align local proposals with national priorities	☐ Consult communities ☐ Include women and vulnerable groups in planning ☐ Track local resilience outcomes ☐ Revise plans based on local feedback

Cross-Government Leadership Needed

Effective territorial mainstreaming requires coordination between:

- **Provincial authorities** – local planning leadership and implementation
- **District / municipal authorities** – service delivery and land-use management
- **MoF / planning functions** – alignment with national priorities and budgets
- **MAE** – climate data, risk maps and technical guidance
- **Sector ministries** – standards for roads, water, agriculture and urban services
- **Communities and development partners** – participation and co-financing

Box 4 - Good Practices Example abroad:
Philippines – Local Climate Mainstreaming through LGUs

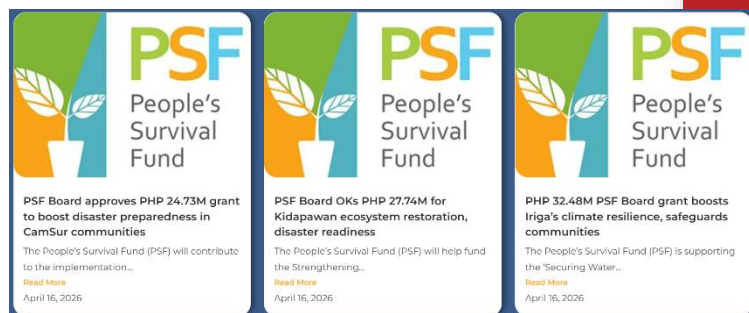
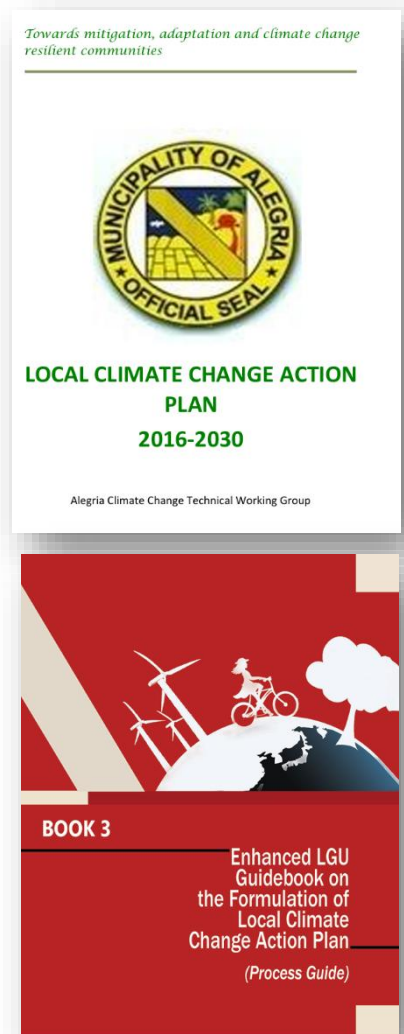
The Philippines is widely recognized as a leading regional example of subnational climate mainstreaming through its system of Local Government Units (LGUs). Under the Climate Change Act of 2009 and subsequent implementing guidance, provinces, cities and municipalities are required to prepare Local Climate Change Action Plans (LCCAPs) aligned with national climate priorities [27].

LCCAPs are local planning instruments designed to address both climate adaptation and mitigation. They outline how LGUs respond to climate risks and integrate climate considerations into local development frameworks, including land-use plans, sector development plans and local investment programmes.

This approach was further reinforced through DILG Memorandum Circular No. 2014-135, which recognized climate change adaptation as a regular function of city and municipal governments, with provincial governments providing technical assistance, coordination and information management support [28].

Through this system, climate risks are incorporated into local development planning, land-use management, infrastructure priorities, disaster preparedness and annual budgeting processes. LGUs are also encouraged to coordinate with communities and sector agencies, helping translate national climate commitments into practical territorial action. As of July 2023, 1,472 LCCAPs had been prepared by Local Government Units [28].

Dedicated financing mechanisms have further strengthened implementation. The People's Survival Fund (PSF), established under Republic Act No. 10174, provides annual financing for LGUs and accredited local or community organizations to implement climate adaptation projects. The fund complements regular government budget allocations and helps vulnerable communities strengthen resilience to climate impacts [29].



Key Takeaways for Lao PDR

The Philippines demonstrates how adaptation can be strengthened when:

- provincial and district governments have formal planning mandates;
- local climate plans are linked to budgets and land-use tools;
- national guidance supports local implementation;
- financing windows exist for territorial resilience investments.

For Lao PDR, this highlights the potential role of provincial development plans, district planning systems and urban masterplans as practical channels for mainstreaming adaptation

4

PROJECT CYCLE

Zoom on Project Cycle Management Systems

Project preparation and appraisal systems are critical entry points for mainstreaming climate adaptation, as they influence how investments are identified, designed, approved and implemented. Without stronger climate integration at these stages, public investment decisions may lock in long-term exposure and future vulnerability.

Mainstreaming Opportunities

Climate adaptation can be integrated throughout the project cycle, from early project identification and feasibility studies to design, appraisal, procurement, implementation and post-completion review. For Lao PDR, strengthening this integration could involve developing an institutionalized approach with the development of national project appraisal procedures, technical standards and implementation guidance that embed climate resilience at each stage.

Mainstreaming Window in Project Life Cycle

Project Identification	Feasibility & Design	Appraisal & Financing	MEL
☐ Screen project concepts against climate risks ☐ Prioritize resilient infrastructure needs ☐ Focus on high-risk provinces and vulnerable assets ☐ Align pipelines with SAP priorities	☐ Include climate risk analysis in feasibility studies ☐ Apply resilient engineering standards ☐ Assess nature-based and low-regret options ☐ Strengthen safeguards and social inclusion design	☐ Include resilience criteria in project appraisal ☐ Prioritize cost-effective adaptation benefits ☐ Integrate resilience specifications in procurement ☐ Mobilize concessional and partner finance	☐ Monitor climate performance of completed assets ☐ Capture lessons after floods / drought events ☐ Improve maintenance planning and budgets ☐ Feed lessons into future project design

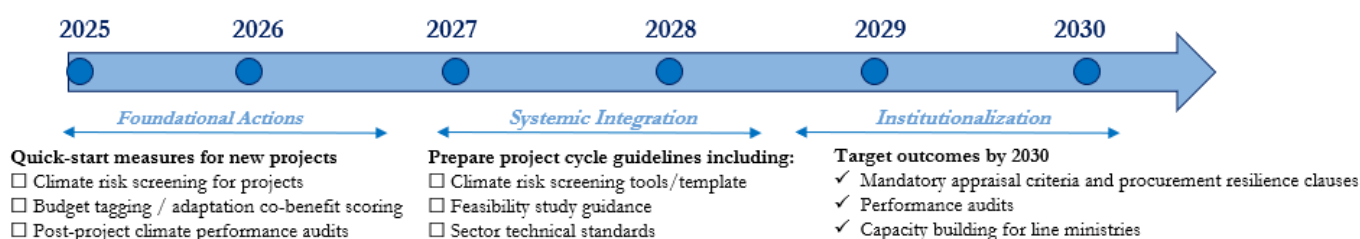
Cross-Government Leadership Needed

Effective mainstreaming across the project cycle will require coordination between the institutions responsible for investment planning, technical design, project approval, implementation oversight and post-project learning.

- **MoF** – investment approval, budgeting and capital allocation
- **Sector ministries** – project pipelines and technical ownership
- **MAE** – screening guidance, risk data and resilience criteria
- **Provincial authorities** – implementation and O&M feedback
- **Development partners / MDBs** – co-financing and safeguards support
- **Private contractors / consultants** – design quality and delivery standards

Progressive National Mainstreaming RoadMap

Use the 10th NSEDP period to institutionalize climate-smart public investment systems



*Box 5 - Good Practices Example:
Regional Experience informing climate-sensitive project cycle reform*

No country in the region appears to have fully institutionalized a single national framework or guideline covering all stages of the project cycle, from concept development to design, appraisal, procurement, implementation and post-completion review, while also systematically embedding climate adaptation throughout. However, several countries provide useful building blocks that can help inform a phased approach in Lao PDR.

- ▶ **Fiji** developed Climate Vulnerability Assessments that are explicitly designed to inform public investment decision-making and identify priority interventions across infrastructure and public assets. [30]
- ▶ **Nepal** illustrates progress toward integrating climate resilience into project preparation through policy support for climate-resilient infrastructure design and related environmental assessment guidance, particularly for roads, bridges and hazard-prone public assets. [31]
- ▶ **Bangladesh** offers a strong example of climate fiscal mainstreaming and gradual movement toward more formal appraisal and approval frameworks for climate- and disaster-informed public investment. [22]

Key Takeaway for Lao PDR

Lao PDR could progressively develop a climate-sensitive project cycle framework for public investment, combining screening requirements, appraisal procedures, technical standards and implementation guidance across the main stages of the project cycle.

- 1. Project concept and screening:** Introduce a simple climate risk screening requirement for major public investment proposals to identify exposure to floods, drought, heat and service disruption risks at an early stage.
- 2. Feasibility and safeguards:** Require climate risk analysis to be integrated into feasibility studies, environmental and social assessments, and option analysis, including consideration of resilient and nature-based solutions where relevant.
- 3. Design and technical standards:** Develop or update sector-specific technical standards and design guidance for climate-resilient roads, drainage, irrigation, water systems, buildings and urban infrastructure.
- 4. Appraisal and approval:** Incorporate resilience criteria into project appraisal templates and approval procedures, ensuring that adaptation benefits, lifecycle risks and maintenance implications are considered before financing decisions are made.
- 5. Procurement and implementation:** Include climate resilience specifications in bidding documents, works contracts and supervision procedures so that resilience objectives are carried through into delivery.
- 6. Post-completion review and learning:** Introduce simple post-project and post-event review procedures to assess adaptation performance, capture implementation lessons and feed these back into future project design, appraisal and standards.

5

MEL and National climate commitments

Tracking Results, Finance and Implementation Progress

Mainstreaming Opportunities

Monitoring, Evaluation and Learning (MEL) systems are essential to track whether climate adaptation priorities are being implemented, financed and delivering resilience outcomes across sectors and territories.

MEL systems are essential to ensure that climate adaptation priorities are effectively implemented, financed and continuously improved. Aligning sector monitoring systems with national climate commitments such as the NAP, NDC and future adaptation targets can strengthen accountability, improve decision-making and support evidence-based policy adjustment over time. For Lao PDR, adaptation tracking can be progressively embedded into existing government systems through climate-related indicators, expenditure tracking, project performance reviews, institutional reporting responsibilities and periodic learning mechanisms across ministries and provinces.

Opportunity 1 – Indicator Alignment

- ☐ Align sectoral performance indicators with NAP targets
- ☐ Include adaptation indicators in ministry reporting systems
- ☐ Integrate GEDSI-sensitive indicators

Opportunity 2 – Data and Reporting Systems

- ☐ Standardized reporting definition / template
- ☐ Strengthen climate data sharing across ministries
- ☐ Clarify reporting roles and responsibilities
- ☐ Develop simple digital dashboards

Opportunity 3 – Performance Review and Learning

- ☐ Conduct annual implementation reviews
- ☐ Identify bottlenecks and delivery gaps
- ☐ Capture lessons learned
- ☐ Adjust programmes based on evidence

Opportunity 4 – International Reporting and Finance

- ☐ Support NDC / NAP progress reporting
- ☐ Improve readiness for climate finance proposals
- ☐ Demonstrate measurable adaptation results
- ☐ Strengthen confidence and transparency

Cross-Government Leadership Needed

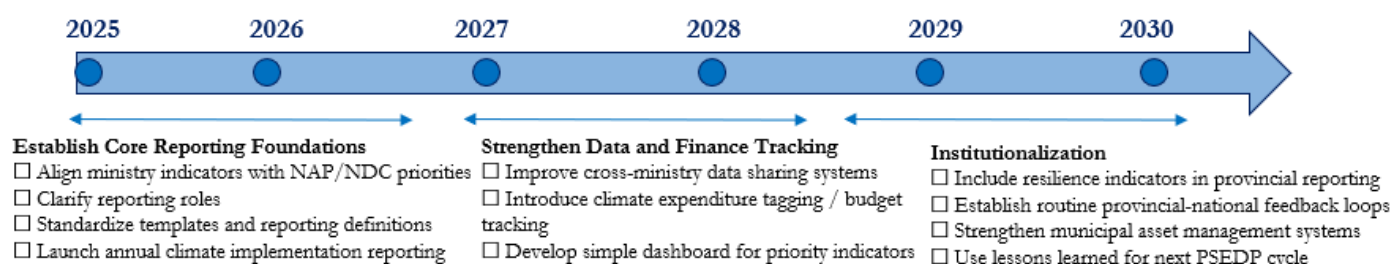
Effective climate adaptation MEL requires coordination between:

- **MAE** – national climate indicators, NAP/NDC reporting and coordination
- **MoF** – climate expenditure tracking and budget reporting
- **Sector ministries** – results monitoring and sector data systems
- **Provincial authorities** – local implementation evidence and field reporting
- **Development partners** – systems strengthening, methodology and data quality support

A simple inter-ministerial reporting mechanism or annual climate implementation review could help institutionalize accountability.

Climate Accountability Roadmap

Use the 2026–2030 planning cycle to embed climate reporting, expenditure tracking and performance review systems



Box 6 - Good Practices Example abroad : Cambodia – Linking Climate Planning with Monitoring and Budget Tracking

Cambodia provides a relevant regional example of how climate adaptation can be progressively integrated into government monitoring, planning and budgeting systems rather than managed only through stand-alone projects.

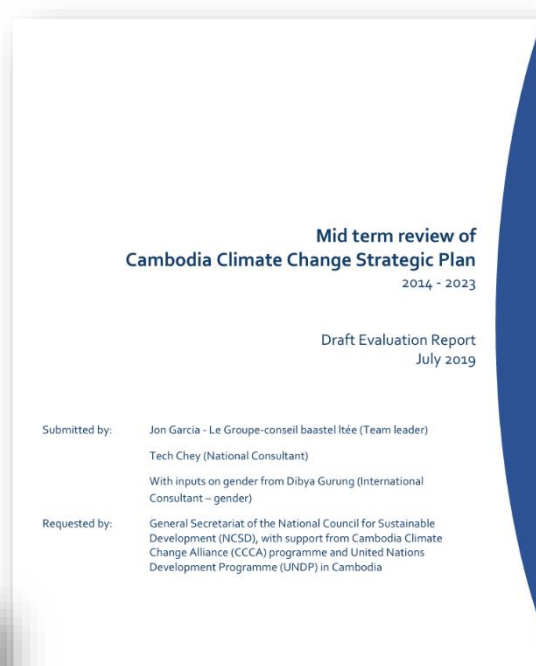
Through the *Cambodia Climate Change Strategic Plan* and subsequent sector action plans, national institutions developed climate indicators and reporting mechanisms to track implementation progress across ministries. This helped strengthen accountability and improve visibility of adaptation delivery [32] [33].

Sector ministries were progressively supported to integrate climate indicators into routine planning and reporting frameworks, helping mainstream climate action into regular government systems [34].

Annex 5. Tables regarding the alignment of the CCCSP

Table 5. Alignment between CCCSP's SOs and the needs expressed in NSDP Update 2009-2013

CCCSP's Strategic objectives	NSDP 2009-2013
SO 1: Promote climate resilience through improving food, water and energy security	7.1.1.1. Ensuring food security and reducing poverty for all Cambodians is one of the priorities of RGC. It also recognizes that climate change remains a challenge to food availability. The access to drinking water and sanitation does not reach 50%, it is therefore also a priority sector of the NSDP. The NSDP considers rehabilitation and construction of physical infrastructure as well as key to the economic development and puts emphasis on water infrastructure and irrigation system management as well as development of the energy sector.
SO 2: Reduce sectoral, regional, gender vulnerability and health risks to climate change impacts	7.1.1.2. The NSDP recognizes the cross-sectoral nature of climate change response. The RGC is committed to mobilize funds to address sectoral climate change issues
SO 3: Ensure climate resilience of critical ecosystems (Tonle Sap Lake, Mekong River, coastal ecosystems, highlands, etc.), biodiversity, protected areas and cultural heritage sites	7.1.1.3. RGC is committed to preserve the ecosystem and rational use of water in all water bodies: rivers, lakes and the Tonle Sap. One of the policy priorities is the sustainability of the ecosystem, so that the quality of land and sustainability of water sources could be improved by focusing on the protection of biodiversity, wetlands and coastal areas. Strengthening the management of protected areas and conserving heritage areas is also included.
SO 4: Promote low-carbon planning and technologies to support sustainable development	To adopt Green Growth and low carbon development strategies, which are key to 7.1.1.4. sustainable economic development is the second policy priority the RGC states for the MoE



Cambodia also became a regional reference for climate budget tagging, helping identify public expenditures contributing to climate adaptation and mitigation priorities. This improved transparency, supported resource allocation and strengthened links between policy commitments and budgeting systems [35].

Table 3: Proportion of climate change expenditure to total public expenditure and GDP

	2018	2019	2020	2021	2022
Public expenditure with CC benefits vs. total public expenditure	33.9%	35.7%	33.4%	45.7%	33.8%
CC public expenditure (weighted) vs. total public expenditure	6.1%	6.6%	5.8%	6.0%	5.6%
CC public expenditure (weighted) vs. GDP	1.8%	2.0%	2.2%	2.3%	2.1%

Source: NIS, MEF, CDC & expert team calculation via 2022 CPER

Key Takeaways for Lao PDR

Cambodia's experience shows that mainstreaming is stronger when adaptation priorities are connected to practical reporting and budgeting systems.

For Lao PDR, relevant lessons include:

- ✓ integrating adaptation indicators into government M&E systems;
- ✓ tracking climate-related expenditure across ministries;
- ✓ establishing common reporting templates for sector agencies;
- ✓ linking SAP delivery monitoring with NAP and NDC reporting;
- ✓ using annual reviews to improve implementation over time.

3. Cross-cutting priority theme Mainstreaming Matrix

Table 3: Mainstreaming Matrix

Cross cutting SAP Priority Themes	Relevant Instrument	Entry Point (Policy / Budget / Program)	Lead Agency	Timeline	Financing source
Climate-resilient infrastructure and built environment	NSEDP; Sector Development Plans	Public investment planning cycle; Project preparation and appraisal processes	MPWT / MOF	<i>Medium</i> 2026-2030	State budget; MDB loans; Climate funds
Ecosystem-based and nature-based solutions	National Green Growth Strategy; NSEDP; Sector Development Plans	Sector planning; Provincial spatial planning; Project preparation and appraisal processes;	MAE	<i>Short</i> 2026-2028	State budget; Climate funds; ODA grants; NGOs.
Integrated land-use and territorial planning	Urban Master Plans; Land Law; NSEDP	Urban masterplan updates; Provincial development planning cycles	MPWT	<i>Medium</i> 2026-2030	State budget; ODA grants (TA); PPP mechanisms.
Climate data, early warning, and decision-support systems	NAP; NDC	Disaster preparedness planning. Sector planning; Project preparation and appraisal processes	MAE	<i>Medium -Long</i> 2026-2030	State budget; Climate funds;
Institutional coordination and capacity strengthening	NAP.	Inter-ministerial coordination platforms; Sector capacity development programmes; Project preparation and appraisal processes.	MOF / MAE	<i>Continuous</i>	State budget; ODA grants (TA);
Sustainable climate financing mechanisms	NSEDP	Budget preparation cycle; Development of investment pipelines	MOF	<i>Medium</i> 2026-2030	State budget; Climate funds;

The Matrix can also be filled with specific actions identified to provide more informed documentation and support decision-makers.

PART IV: CONCLUSION AND WAY FORWARD FOR CLIMATE ADAPTATION MAINSTREAMING

This Mainstreaming Plan provides a structured and practical framework to support the Government of Lao PDR in translating climate adaptation priorities into routine planning, budgeting, and investment processes. Building on the National Adaptation Plan, Sectoral Adaptation Plans, and the forthcoming 10th National Socio-Economic Development Plan, it identifies concrete entry channels and institutional mechanisms to move from policy commitments to implementation.

Lao PDR is at a critical transition point, where strong policy foundations are in place, but further efforts are required to ensure systematic integration of climate resilience into development systems. In this context, mainstreaming should be understood as a progressive governance reform process, embedded within existing institutional frameworks rather than through the creation of parallel systems.

However, despite strong enabling conditions, several challenges may affect implementation:

- ▶ Institutional coordination gaps across ministries and levels of government
- ▶ Limited technical capacity, particularly at subnational level
- ▶ Fragmentation of data, monitoring and reporting systems
- ▶ Insufficient integration of climate considerations into budgeting and investment processes
- ▶ Dependence on external financing and limited domestic resource mobilization
- ▶ Variability in implementation readiness across sectors and provinces

These challenges highlight that mainstreaming is not only a technical exercise, but also an institutional and financial transformation process.

1. Strategic Recommendations for Immediate Next Steps

While the SAPs identify priority adaptation actions translating these into implementation requires targeted efforts to strengthen financing readiness, institutional coordination, and delivery capacity. Immediate progress will depend on several enabling reforms. Consultations suggest that Lao PDR can accelerate mainstreaming through targeted near-term actions focused on financing readiness, institutional coordination and subnational implementation capacity.

LAUNCH FINANCING READINESS MEASURES

Ensuring **financing alignment is critical to avoid bottlenecks when scaling adaptation**. Adaptation priorities should be translated into costed investment proposals and integrated into financing pipelines to access domestic and international funding. Strengthening climate budget tagging, improving coordination with development partners, and facilitating private sector participation in resilience investments will be essential to move from planning commitments to sustained implementation.

- ☐ Screen SAP priorities for funding potential
- ☐ Prepare costed investment concepts
- ☐ Map domestic + external funding windows
- ☐ Improve climate budget tagging
- ☐ Integrate climate risk screening into Public Investment Program (PIP) processes

STRENGTHEN A COORDINATION MECHANISM

It's important to **strengthen institutional coordination and cross-sector adaptation delivery**. Overlapping mandates between ministries, limited technical staffing at central and provincial levels, and fragmented climate data systems reduce the effectiveness of planning alignment. Strengthening coordination between MOF, MAE and sector ministries, particularly in linking NAP priorities with sector development plans, is critical to support coherent adaptation implementation.

- ☐ Endorsed clear institutional mandates lead agencies
- ☐ Operationalize inter-ministerial working groups (e.g. SWGs)
- ☐ Align SAP priorities with planning cycles
- ☐ Formalize reporting roles and information-sharing mechanisms
- ☐ Ensure dedicated staff and technical focal points for implementation.

SUPPORT DELIVERY CAPACITY

It's important to **strengthen the capacity of subnational implementation**. Provincial departments play a key role in land-use planning, infrastructure maintenance and service delivery, yet they can face important constraints related to technical guidelines, data access and financial resources. Targeted capacity development, clearer operational procedures and strengthened feedback mechanisms between national and provincial levels are important to support routine integration of climate risk considerations.

- ☐ Dissemination of NAP and SAPs
- ☐ Issue practical guidance notes
- ☐ Target pilot provinces
- ☐ Provide training + technical support
- ☐ Strengthen feedback loops between national and subnational levels (MEL systems)

These immediate steps would create the institutional foundations needed for longer-term integration of climate adaptation across planning, budgeting and investment systems.

2. Expected Outcomes of Effective Mainstreaming

If effectively implemented, the mainstreaming approach outlined in this Plan is expected to:

- ▶ Improve the alignment between climate priorities and development planning across national, sectoral, and subnational levels
- ▶ Strengthen the resilience of public investments and infrastructure systems
- ▶ Enhance institutional coordination and policy coherence across ministries and administrative levels
- ▶ Increase access to climate finance and investment opportunities through more structured and bankable project pipelines
- ▶ Support inclusive and locally adapted solutions, particularly for vulnerable communities

Ultimately, mainstreaming climate adaptation in Lao PDR is not a one-off exercise but a continuous process requiring sustained coordination, institutional learning, and alignment across planning cycles. By embedding resilience into core governance systems, Lao PDR can progressively transition toward a more climate-resilient, inclusive, and sustainable development pathway.

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ANNEXES

Annex 1: Financing and Resources Mobilization Strategy

Achieving the adaptation objectives identified in the SAPs will require the mobilization of diversified and sustained financial resources. SAP promotes a multi-source resource mobilization approach, combining national budget allocations, public investment programs (PIP), concessional development finance, regional investment flows, private sector participation, and innovative blended finance mechanisms.

A key priority is the integration of climate resilience criteria into infrastructure planning, investment appraisal, and concession frameworks. Embedding climate standards early in project preparation can help avoid maladaptation, reduce long-term costs, and improve the bankability of adaptation investments.



EMERGING CLIMATE FINANCE COORDINATION MECHANISMS

Embedding climate resilience standards into infrastructure financing and investment planning is an emerging priority in Lao PDR to avoid future climate vulnerability and protect economic assets.

New institutional mechanisms, including the establishment of the Climate and Sustainable Finance Hub and the operationalization of the Green Climate Fund (GCF) Country Platform, are expected to improve coordination of climate finance pipelines, mobilize international funding, and align sector investment programs with national adaptation priorities.

These initiatives can help bridge financing gaps for climate-resilient infrastructure during the 2026–2030 period by strengthening project preparation, financing readiness, and integration of adaptation into development planning.

Overall, effective resource mobilization for adaptation will depend not only on the volume of funding secured, but also on the strategic alignment of financial flows with identified adaptation priorities, institutional capacity to manage funds, and robust monitoring systems to track adaptation outcomes. This includes promoting climate budget tagging practices and developing simple tools to support local governments in identifying and prioritizing adaptation expenditures.

As a practical support, an illustrative climate adaptation budget tagging template is proposed to help identify, track, and prioritize adaptation-related expenditures within existing public investment and budgeting frameworks. Table 4 provides one illustrative example of how a priority SAP action could be reflected in a simple climate adaptation budget tagging system. It is presented for demonstration purposes only and does not imply that all SAP actions require individual templates.

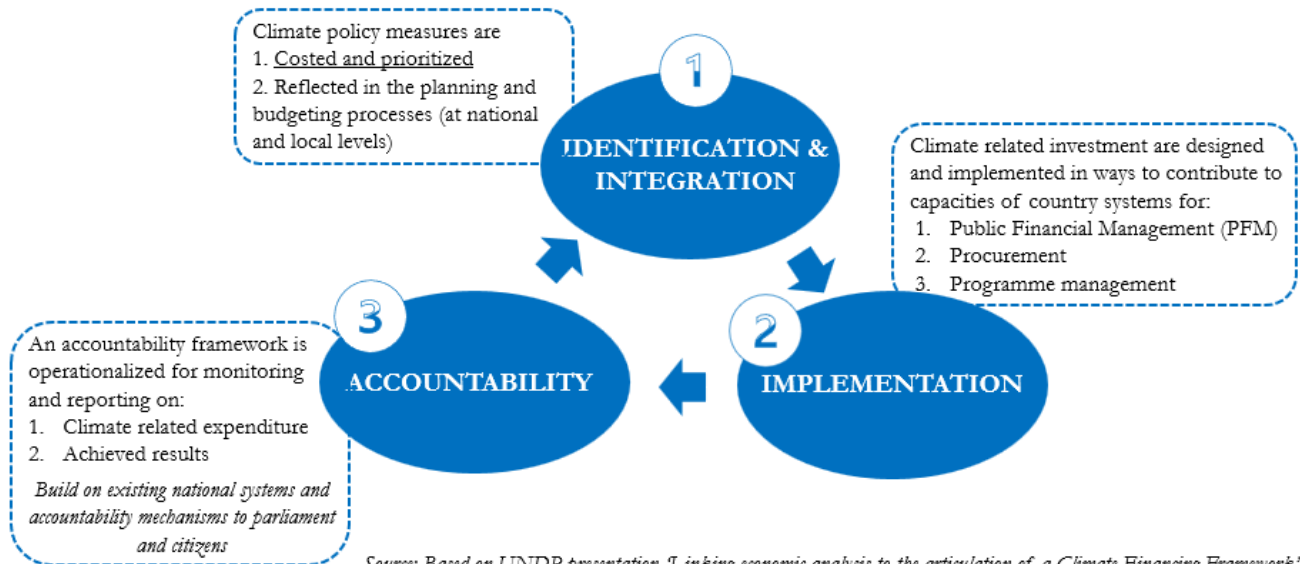
Table 4: Climate Adaptation Budget Tagging Tool

Project / Program Name	Sector and Lead Agency	Investment Type	Implementation Level	Adaptation Tag	Adaptation Objective	Estimated Adaptation Cost (USD or %)	Identified funding source
Example with Action 4 of UdT SAP							
<i>Upgrade and expand stormwater drainage systems in priority cities</i>	UdT - MPWT (DHUP)	Infrastructure	City	Primary	Reduce urban flood exposure	\$8.7M (100%)	...

Box 7 – Towards a Climate Financing Framework
Lessons from UNDP Climate Public Expenditure Reviews (CPEIRs) [31]

Effective adaptation mainstreaming requires climate priorities to be linked with planning, budgeting and investment systems, not treated only as external donor projects.

- ✓ Link Climate Change priorities with expenditure and taxation decisions through the national budget process
- ✓ Ensure that any external finances are used most effectively alongside domestic resources
- ✓ Provide a framework to incentivize private investment



Important to define the baseline situation first with a Climate Public Expenditure and Institutional Review (CPEIR). CPEIRs help governments identify existing climate spending, align budgets with policy priorities, strengthen coordination across ministries and create a baseline for monitoring.

Objective: To review allocation, management and results of public expenditures related to climate change

Key-question: How is climate change reflected in national policies, institutions and public expenditures?

Implementation: Led by government through cross government steering group chaired by Finance or Planning

Policy and institutional recommendations

- ✓ Economics of adaptation need to be much better understood (costing & prioritizing)
- ✓ Link budget to climate policy, so climate is part of budget framework and performance measures
- ✓ Coordination by finance & planning ministries with technical input from environment ministries
- ✓ Large development projects should be made climate resilient
- ✓ Local government also a key channel for climate finance: Avoid focus on “extra-budgetary climate funds” as local government and social protection expenditures much more significant
- ✓ International finance should build on domestic finance
- ✓ Prioritize Sectoral focus

Key Takeaways for Lao PDR

For Lao PDR, a similar review could support climate budget tagging, resilient investment prioritization and stronger coordination between MOF and MAE. CPEIRs would help to set a baseline against which future expenditures can be measured and monitored

Annex 2: Tracking Progress and Reporting Alignment recommendation

1. Monitoring Indicators

To ensure that adaptation of mainstreaming translates into measurable resilience outcomes, sector ministries and planning agencies are encouraged to use indicators aligned with national and international reporting frameworks. Rather than creating parallel monitoring systems, the guide proposes integrating adaptation indicators into existing sector monitoring, planning, and budgeting frameworks.

The indicator menu includes three complementary categories:

- ▶ **Process indicators:** Track the extent to which climate risk considerations are integrated into policies, plans, and investment decisions (e.g. number of sector plans including climate risk screening).
- ▶ **Output indicators:** Measure implementation progress of priority adaptation measures (e.g. climate-resilient infrastructure completed, NbS interventions implemented).
- ▶ **Outcome indicators:** Capture resilience improvements and social benefits (e.g. reduced exposure to climate hazards, increased adaptive capacity of vulnerable groups).



GEDSI indicators should be systematically integrated, including targets on women's participation, access to resilient services, and leadership in adaptation initiatives.

2. Institutional Reporting Responsibilities

Effective mainstreaming requires clear assignment of monitoring and reporting roles across institutions.

- **Line ministries:** Integrate adaptation indicators into sector monitoring systems and report progress through annual sector performance reviews and investment reporting mechanisms.
- **Ministry of Agriculture and Environment (MAE) / Department of Environment (DoE):** Provides strategic oversight and ensures alignment with NAP implementation tracking, consolidates sector inputs, ensures methodological consistency, and supports capacity development on climate risk monitoring.
- **National Environment Committee (NEC):** Reviews cross-sector progress and supports high-level coordination to address implementation bottlenecks.



Where possible, reporting cycles should be synchronized with key planning instruments such as NSEDP reviews, Public Investment Program (PIP) updates, and NDC reporting cycles.

3. From Monitoring to Adaptive Management

Mainstreaming adaptation is an iterative process. MEL should therefore function not only as accountability tools but also as decision-support mechanisms. Institutionalizing feedback loops allows sector agencies scale up effective pilot initiatives as well as adjust priorities and refine financing strategies and resource allocation.



WHAT MAKES A MEL FRAMEWORK SUCCESSFUL

Success depends on clear institutional responsibilities; harmonized indicators aligned with national frameworks and integration of climate data into sector monitoring systems. Sustained coordination, technical capacity and adequate financing are essential to ensure MEL systems remain operational and relevant over time. Key operational features include:

- ▶ **Framework Alignment:** Direct alignment with NAP benchmarks and UNFCCC reporting requirements to maintain international transparency.
- ▶ **Inclusion Metrics:** Mandatory integration of GEDSI indicators, such as specific targets for gender participation in adaptation initiatives.
- ▶ **Adaptive Management:** Institutionalizing feedback loops so localized learnings can continually refine and adapt ongoing sectoral plans.

Annex 3: Illustrative Mainstreaming Pathways for Priority SAP Actions

Table 5 below presents illustrative examples of how one top-ranked priority adaptation action from each Sector Adaptation Plans developed for the three sectors (Agriculture & Forestry, Water Resources, Urban Development and Transport) could be progressively mainstreamed into planning, budgeting, appraisal, implementation and monitoring systems in Lao PDR. The selected actions reflect priorities identified during the SAP validation workshops conducted with government stakeholders on 14-15 January 2026. These examples are intended to demonstrate practical entry points and institutional processes for mainstreaming, rather than prescribe fixed implementation roadmaps.

Table 5: Illustrative example of mainstreaming process for top-ranked priority action from each SAP

Step	Mainstreaming Entry Point	Mainstreaming action required	Lead Agencies	Opportunity Window
SAP-Agriculture and Forestry				
Action 1: Improve Irrigation and Storage of Excess Rainfall				
1	Sector and Provincial Planning	Integrate action in the MAE Five-Year sectoral plan Integrate the action into relevant Provincial Development Plans.	MAE, Provinces	Next Five-Year Plan / Annual Plan updates
2	Project Screening / Appraisal	Integrate irrigation resilience measures into public investment screening criteria so drought/flood management benefits are considered during project selection.	MAE, MPWT, Provinces	Public investment appraisal updates
3	Financing	Establish budget lines and climate expenditure tagging for irrigation resilience investments and include eligible activities in national and donor financing pipelines.	MoF, MAE	Annual budget preparation cycle
4	Provincial Delivery Systems	Issue operational guidance for provinces on project preparation, procurement, O&M responsibilities and community engagement for irrigation resilience investments.	MAE, MPWT, Provinces	Provincial implementation planning
5	MEL	Integrate indicators such as storage capacity improved, irrigated area secured, dry-season productivity and maintenance performance into ministry MEL systems	MAE, Provinces	Annual reporting / NAP review cycle

SAP-Water Resources				
Action 1: Build Basic Infrastructure and Develop Community Water Supply to Cope with Floods and Droughts.				
1	Sector and Provincial Planning	Integrate resilient community water supply priorities into MAE water planning instruments, provincial development plans and drought/flood preparedness priorities.	MAE, Provinces	Sector plan updates / Provincial plans
2	Project Screening / Appraisal	Include water security and climate resilience criteria in selection of rural water supply and small-scale infrastructure investments.	MAE, MOF, Provinces	Public investment appraisal cycle
3	Financing	Develop pipeline of community water supply projects for state budget, donor support and climate finance windows.	MoF, MOF, MAE	Annual budget / donor programming
4	Provincial Delivery Systems	Strengthen district and village implementation arrangements for O&M, community management and rapid repair systems.	Provinces, Districts, MAE	Annual implementation plans
5	MEL	Track access to safe water, dry-season reliability, flood disruption days and functionality of systems.	MAE, Provinces	Annual reporting / NAP review
SAP-Urban Development and Transport				
Action 1: Update and Ensure building Codes for climate resilience				
1	Sector and Provincial Planning	Prioritize revision of building regulations to include flood, heat, drainage, wind and material resilience standards.	MPWT	Regulatory revision cycle
2	Project Screening / Appraisal	Develop practical technical guidelines for resilient construction, retrofitting and local compliance procedures.	MPWT	Standards update cycle
3	Financing	Integrate climate compliance checks into building permit review and public building design approval processes.	MPWT, Municipalities	Permit / appraisal systems
4	Provincial Delivery Systems	Promote incentives for compliant resilient construction through public buildings, housing schemes or pilot financing mechanisms.	MoF, MPWT, MDB	Budget cycle / pilot windows
5	MEL	Monitor compliance rates, code enforcement capacity and post-event building performance after floods/storms.	MPWT, Provinces, Municipalities	Annual reporting / inspections