

Current Status of TM-FM linkages - CTCN support to Laos

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NDA Laos

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Outlines

- 1. Overview of CTCN support to Laos and its impacts;**
- 2. CTCN TA support in Lao PDR;**
- 3. Reflections on the impact of CTCN support to Laos**
- 4. The Lao PDR TM-FM Linkage Process;**
- 5. Way forwards of collaboration.**

1. Overview of CTCN support to Laos and its impacts

CTCN Supported works in Laos

2017

- City Climate Vulnerability Assessment and Identification of Ecosystem-based Adaptation Interventions in Laos

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(Technical Assistance- Completed)

2018

- Designing ecosystem-based solutions for building urban resilience

(Fast Technical Assistance- Completed)

2020

- **Developing a power to gas masterplan in Laos**

(Technical Assistance-completed)

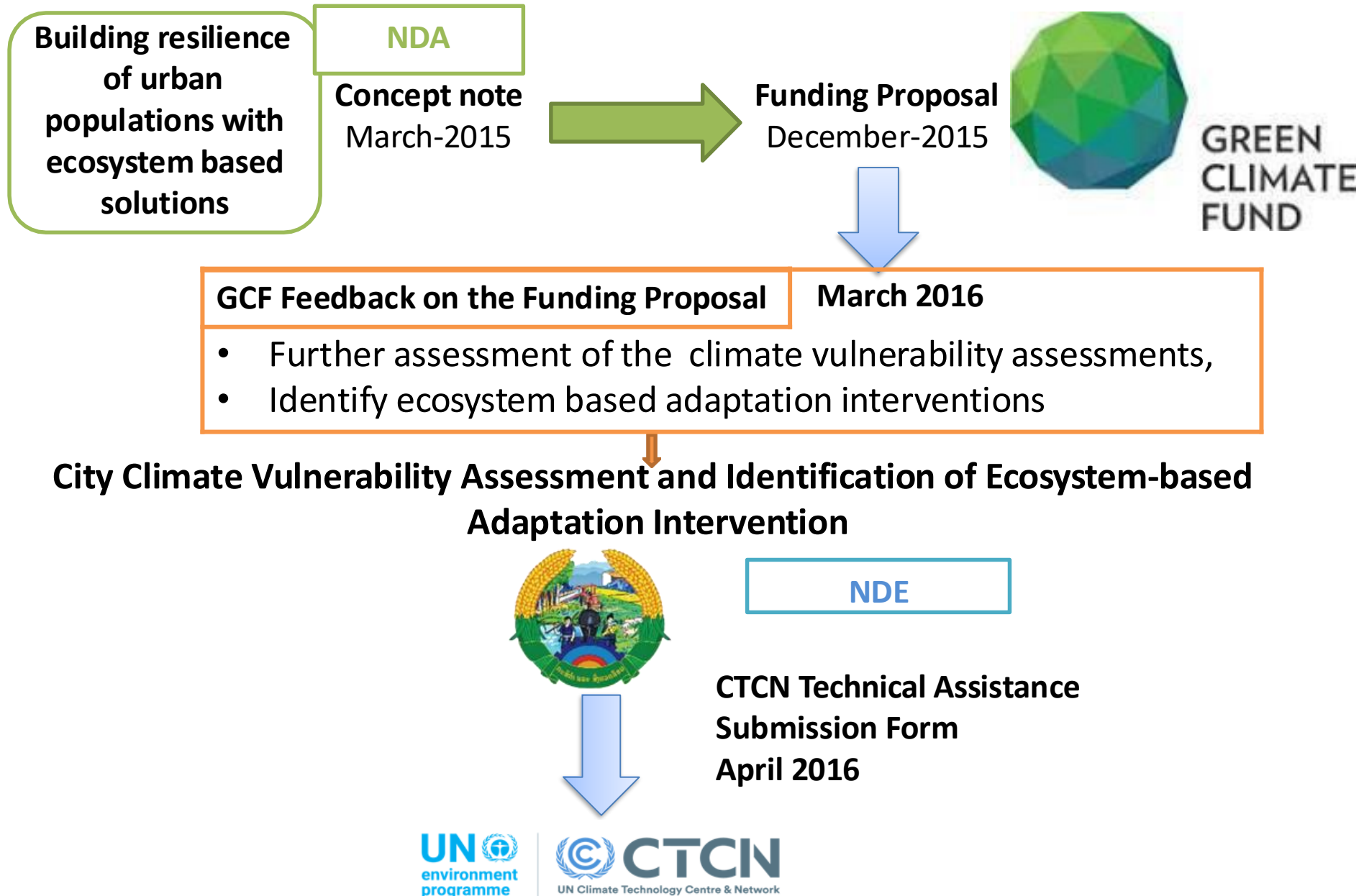
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2022

- **GEF Challenge Programme**

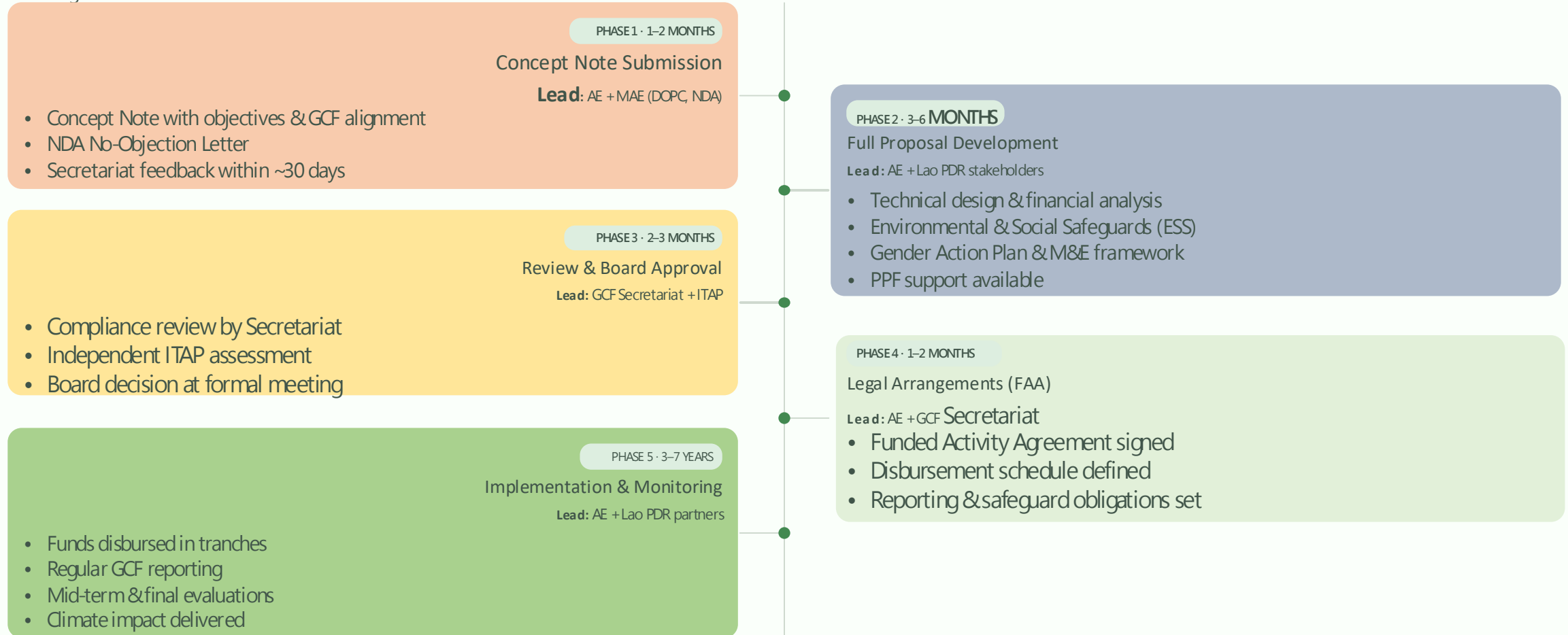
(Technical Assistance-was completed)

2. CTCN Support in Lao PDR



GCF Project Roadmap: Concept Note → Full Proposal → FAA

From initial idea to signed agreement and implementation, this roadmap outlines the five key phases Accredited Entities and Lao PDR stakeholders must navigate to successfully access Green Climate Fund financing



❑ **Key milestone:** The Funded Activity Agreement (FAA) —signed at the end of Phase 4—is the legal trigger that makes project funding official and disbursement possible. All prior phases build toward this critical document.

2. CTCN Support in Lao PDR (Con't)



Technical assistance

Scoping Mission
August 2016

Response Plan
December 2016

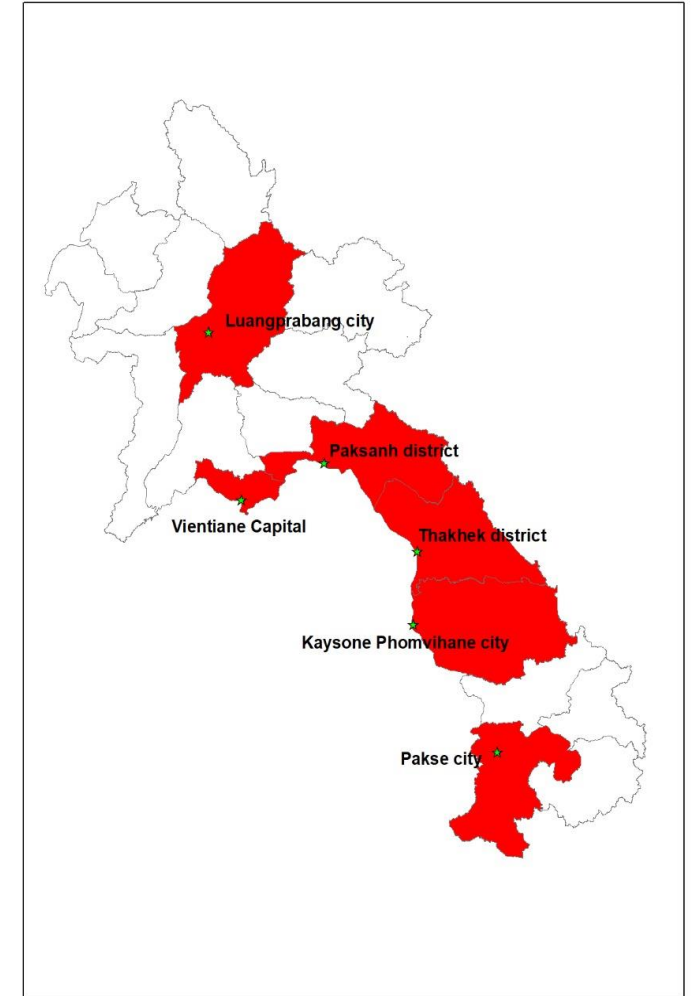
EXPECTED AGREE DRESULTS

- **Impact of Climate change in the cities**
- **Existing and potential ecosystem services provided**
- **Identification and overall costing of ecosystem-based adaptation interventions** that would be able to respond sufficiently to reducing climate risks faced by cities with special emphasis on the peri-urban areas
- **Developed capacity** of state and municipal authorities in Laos to address national and sub-national adaptation priorities as a result of using data to inform the design of on-the-ground adaptation action
- **Environmental and social co-benefits** such as enhanced provision of water and waste treatment through improved ecosystem management are identified

Expected final Documents: **November 2017**

2. CTCN Support in Lao PDR

- ❑ CTCN supported TA to undertake city level **climate vulnerability assessment of people and ecosystems** in six cities: Xaythany, Vientiane Capital, Paksan, Bolikhamxay, Kaysone, Savannakhet and Pakse, Champasack.
 - Four cities have been selected for the GCF project to build resilience of the city populations with the ecosystem-based solutions.
- ❑ Key deliverables and lessons learnt from the TA was used for the assessment and mapping of the country level climate change vulnerability assessment.
 - The Vulnerability Assessment Report was endorsed by MONRE in 2021 and is being distributed to all relevant sectors.



2. CTCN Support in Lao PDR (Con't)

CTCN TA on City Climate Vulnerability Assessment and Identification of Ecosystem-based Adaptation Intervention in Laos

- **Objective**
 - City climate vulnerability assessment and identification of ecosystem-based adaptation interventions in Laos.
- **Deliverables and Outcomes of the TA**
 - CTCN-TA contributed to design a GCF project proposal focusing on ecosystem-based adaptation in six cities in Laos.
 - The knowledge and data obtained from the CTCN-TA strengthened the technical design of the GCF project.
 - CTCN-TA helped identifying technical options for adaptation in urban areas, specifically technical skills, knowledge and equipment.
- **Impacts created**
 - Identified the vulnerability of people and ecosystems in each of the six cities and made it clear that people in urban areas are currently impacted by climate change.
 - Identified overall costing of EbA interventions that would be required to respond for reducing climate risks.

2. CTCN Support in Lao PDR (con't)

CTCN TA on Designing ecosystem-based solutions for building urban resilience

- **Objective**
 - Conduct an economic and engineering analysis in the six cities.
- **Deliverables and Outcomes of the TA**
 - Contributed to revise and re-submission of the GCF Funding proposal *Building resilience of urban populations with ecosystem-based solutions in Lao PDR*
 - Overall Economic and Engineering Analyses
- **Impacts created**
 - Estimated the economic impacts for the 6 proposed interventions;
 - Designed interventions for flood remediation and residual flood risks;
 - Analyzed the potential pollution remediation issues.

Location: 15° 7'59.27"N X 105°48'49.83"E



The floods occur on annual basis during July - October (Huay Nyang-Kham, Pakse)

2. CTCN TA Support in Laos (con't)

GCF Ecosystem-based Adaptation in Laos

- The GCF funded project “Building resilience of urban populations with ecosystems-based solution in Lao PDR” started implementation since June 2020.
- The project aims to shift the paradigm of urban flood management in Laos from a limited, hard infrastructure approach towards an integrated approach by mainstreaming integrated flood management strategies into planning frameworks and implementing urban ecosystem-based adaptation (EbA). The project has two key components.
 - Component 1: Technical and institutional capacity building to plan, design, implement and maintain integrated urban Ecosystems-based Adaptation (EbA);
 - Component 2: Rehabilitation and protection of ecosystem in response to climate variability and change.

Funded Activity	UNEP Laos (SAP)
Executing Entity	Ministry of Natural Resources and Environment Ministry of Finance
GCF Results areas	Most vulnerable people and communities Ecosystem and ecosystem services
Beneficiaries (direct and indirect)	Direct: 74,600 Indirect: 825,000
Project sites	Pakse, Savannakhet, Paksan, Vientiane
Timeline	5 years from June 8, 2020
Funding sources	Uses (USD million)
GCF (grants) GoL (in-kind)	10 million 1.5 million
Total	11.5 million

2. CTCN TA Support in Laos (con't)

CTCN TA on Developing a power to gas masterplan in Lao PDR

- **Context:** Blessed with abundant hydro resources, Laos has an opportunity to explore production of green hydrogen using power to gas technology, which can be further used with carbon capture technology in industries to produce methane for various industrial and transport use.
- **Objective:** Develop a masterplan for Laos to operationalize power-to-gas technology on a commercial basis in the future.
- **Activities:**
 - Power to gas state of the art technology;
 - Country assessment for various application and related barriers in industry and transport sector;
 - Cost benefit analysis of power to gas technology in Laos;
 - A mater plan containing a roadmap, strategies and action plan to implement power to gas technology in Laos.
- **Impacts:**
 - Lower the GHG emissions and enhance energy security for industry and transport sector;
 - May serve as regional demonstration with potential opportunities to scale up in other countries in the region .

2. CTCN TA Support in Laos (con't)

Piloting innovative financing for climate adaptation technologies in medium-sized cities (GEF)

- **Context:** Building on the foundation work done in Laos to strengthen urban resilience, the ability to mobilize financing to scale up adaptation technologies in medium size cities is the next step. The city of Kaysone Phomvihane City (or Savannakhet) is one of the 6 cities targeted in the first CTCN TA project in Laos.
- **Objective:** provide technical assistance to urban planners to identify financial tools and mechanisms for financing adaptation technologies and build relationships between municipalities, the private sector, financial markets and infrastructure funds.
- **Activities:**
 - Develop financing toolkits for medium-size cities (includes tools to assess CCA technologies in urban planning and innovative financing), and development of capacity of urban planners and other stakeholders;
 - Mapping and prioritization of high potential climate resilience financing solutions;
 - Developing an adaptation technology financing plan for Kaysone Phomvihane City;
 - Prioritization of investment projects and their financing options based on their adaptation impact and attractiveness to private sector;
 - Presentation of the adaptation technology financing plan to selected members of the financial community.
- **Impacts:**
 - Strengthen climate resilience of Kaysone Phomvihane City;
 - Will serve as a demonstration of CCA financing solutions for medium sizes cities; with potential opportunities to scale up in other medium sized cities in Laos and other countries in the region.

3. Reflections on the impact of CTCN support to Laos

>> CTCN support has been catalytic, transformational, and has helped leverage larger financing

Key deliverables and lessons learnt from CTCN TA & FTA on the city level climate vulnerability assessment of people and ecosystems and identification of adaptation measures have generated great impact, far beyond the 6 cities they targeted..

- TA/FTA were the 1st step for a national scale assessment and mapping of climate change vulnerability

6 VAs (2017) → 145 VAs (2021)

The National Vulnerability Assessment Report was endorsed by MONRE (in the past) in 2021 and is being distributed to all relevant sectors.

- They built the foundation for work in other sectors (e.g. GEF proposals IWRM, C. Finance)

GEF proposals being finalized on Integrated Water Resource Management and Ecosystem-based Adaptation in the Xe Bang Hieng river basin and Luang Prabang city, and on Piloting innovative financing for medium-sized cities (the CTCN GEF challenge program)

- They were instrumental in leveraging financing to implement adaptation measures

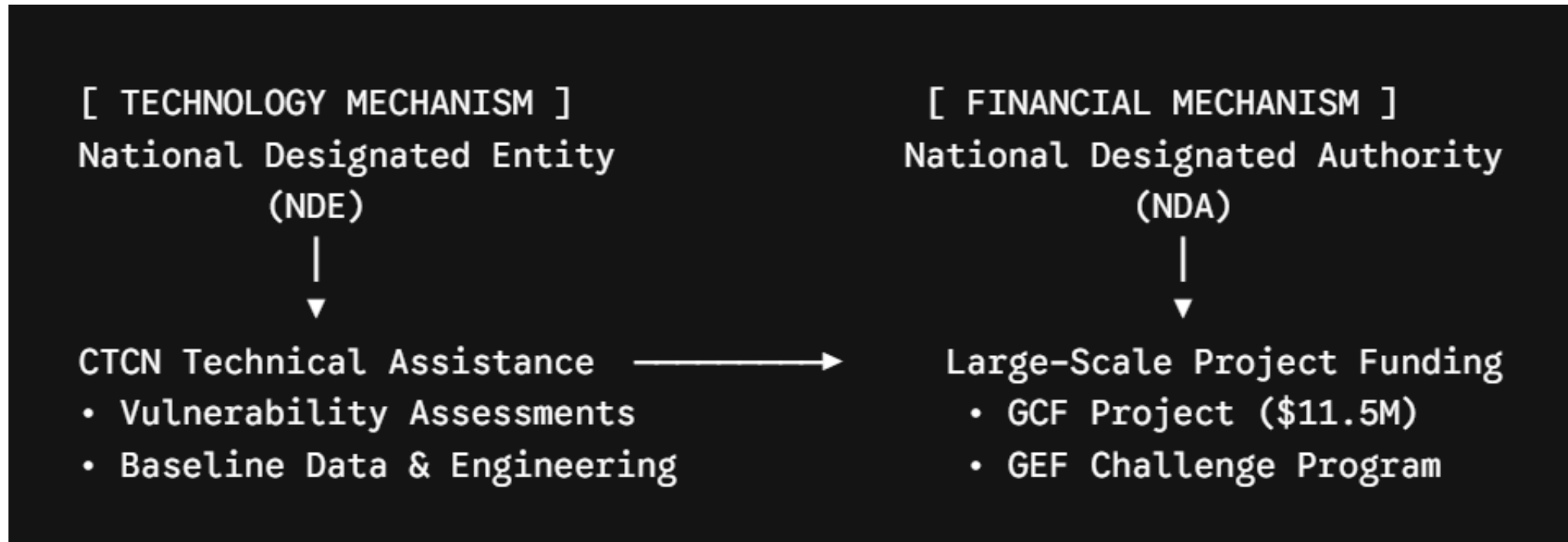
\$ 270 K → \$11.5 Million *GCF project to build resilience in 4 city populations with ecosystem-based solutions.*



>> It may take years to be able to assess the full impact of CTCN TA support..

4. The Lao PDR TM-FM Linkage Process

Lao PDR has pioneered a country-owned model that bridges the UNFCCC **Technology Mechanism (TM)** and the **Financial Mechanism (FM)** to systematically transition from climate vulnerability assessment to large-scale funding mobilization.

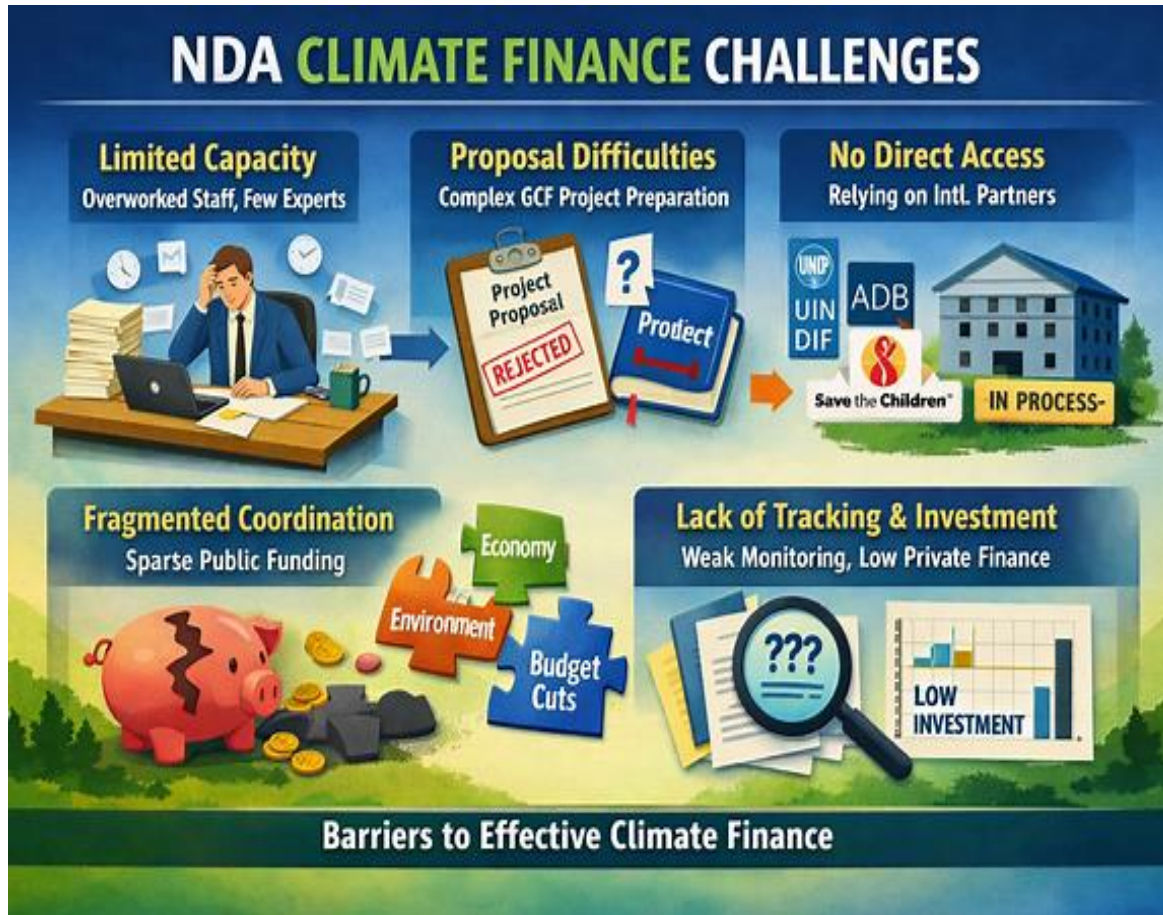


Post-2022 Trajectory-GEF

Following the conclusion of the 2022 GEF Technical Assistance under the CTCN-GEF Challenge Programme for Adaptation Innovation, Lao PDR focused heavily on moving from standalone pilots toward national-scale frameworks and sustained pipeline development:

- **The CTCN-GEF Challenge Program Implementation:** Launching the pilot framework established during the Challenge Program, Lao PDR utilized innovative adaptation financing toolkits explicitly tailored for urban planners. This moved the focus into medium-sized cities—such as Kaysone Phomvihane City—to embed nature-based solutions (NbS) and climate resilience criteria directly into local governance and municipal budgeting.
- **Advancing the National Adaptation Plan (NAP) Process:** Building directly on the institutional capacities sharpened during the 2022 TA, the country expanded its collaboration with UNEP through the LDCF-backed project, "Building the Capacity of the Lao PDR Government to Advance the National Adaptation Planning Process". This included cross-sectoral engagement across government levels to align technology needs with national climate strategies.
- **Expanding the River Basin Portfolio:** The structural framework from the 2022 assessments was utilized to advance broader funding proposals. This includes scaling integrated water resource management (IWRM) and ecosystem-based adaptation (EbA) project pipelines for vulnerable regions like the Xe Bang Hieng river basin and Luang Prabang city.
- **Regional NDE–NDA Dialogue:** Lao PDR has consistently brought its lessons learned to the international stage—such as the GCF Asia-Pacific Dialogues—to demonstrate to regional neighbors (like Thailand, Bangladesh, and Cambodia) how deep-dive clinic sessions can actively foster synchronized TM-FM collaboration.

Challenges in mobilizing Climate funds



- **Limited institutional & technical capacity** — the NDA role adds to an already stretched mandate, with few dedicated climate-finance specialists.
- **Turning ideas into bankable proposals** — strong concepts, but difficulty preparing GCF-standard project documents in English.
- **No national Direct Access Entity yet** — reliance on international partners (UNDP, ADB, Save the Children); EPF (EFF) accreditation still in process.
- **Fragmented coordination & thin fiscal space** — weak alignment of economic, fiscal and environmental policy limits leverage of scarce public resources.
- **Weak tracking & limited private finance** — no system to track public or private climate spend, and budgets skew toward technical assistance over on-the-ground delivery. <https://cfmrv.monre.gov.la/>

5. Way forwards of collaboration.

- Laos is seeking more support to enhance the capacity for comprehensive vulnerability assessment;
- The support should be expanded from project-based TA support to a broader scope with a longer engagement and larger resources as well as in terms of technology and financial mechanisms;
- For further collaboration with CTCN, co-organize an event to raise awareness on technological mechanisms, we kindly recommended;
- Capacity building for accessing to climate funds to support adaptation and mitigation in priority sectors;
- Support knowledge sharing and field trip in the regionals to learn more about climate technology that can be adopted to Laos.

Thank you for your attention

