

# CTCN



## Demonstrating impact - CTCN support to Laos

**NDE Laos**

@ CTCN Advisory Board Meeting 2021

- **Overview of CTCN support to Laos**
- **Technical Assistance (TA) and Fast Technical Assistance (FTA) support to design a larger (GCF) Ecosystem-based Adaptation Project in Laos**
- **GEF project on Ecosystem-based Adaptation in Laos**
- **Current CTCN support to Mitigation and Adaptation work in Laos**
- **Reflections on the impact of CTCN support to Laos**
- **Ways forward for collaboration with CTCN**

# 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  
(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- under implementation)  
|
- 2022** • GEF Challenge Programme  
(Technical Assistance- being finalized, implementation expected to start later this year)

# CTCN TA - City Climate Vulnerability Assessment and Identification of Ecosystem-based Adaptation Intervention

- **Objective**

- City climate vulnerability assessment and identification of ecosystem-based adaptation interventions in Laos.
- **Cost of the project: USD 245,179**

- **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.
- **Leveraged USD 11.5 million (GCF grant + Gov Laos in-kind)**

# CTCN FTA - Designing Ecosystem-based Solutions for Building Urban Resilience

- **Objective**

- Conduct an economic and engineering analysis in the six cities.
- **Cost of the project: USD 23,000**

- **Deliverables and Outcomes of the TA**

- Contributed to revise and re-submit the GCF funding proposal *Building resilience of urban populations with ecosystem-based solutions in Lao*
- 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)

# GCF Ecosystem-based Adaptation in Laos

- **Objective**

- Paradigm shift on urban flood management through mainstreaming integrated flood management strategies into planning frameworks and implementing urban ecosystem-based adaptation (EbA).

- **Key components**

- Technical and institutional capacity building to plan, design, implement and maintain integrated urban Ecosystems-based Adaptation (EbA);
- Rehabilitation and protection of ecosystem in response to climate variability and change.

- **Overall Impacts to be created**

- Strengthened institutional capacity for flood risk management and urban EbA
- Established integrated climate resilient flood management strategies and urban EbA guidelines
- 800 ha of Paksan wetland restored
- 700 ha of urban streams rehabilitated and sustainably managed
- 18,000 m<sup>2</sup> of permeable paving solutions installed

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

# GCF Ecosystem-based Adaptation in Laos

- **Status of the project implementation**

- Institutional arrangements to be strengthened for the effective delivery: MONRE/UNEP/NUOL/MPWT; and PONREs and City Authorities
- PMU established with key staffs at National level and PIU at provincial level.
- On April 7th, 2021- Inception workshop was conducted to launch the project
- National and Provincial Project Steering Committees (NPSC/PPSC) were formed.
- National and provincial project workplans were prepared and endorsed by NPSC.
- MoU signed with Environmental Protection Fund (EPF) is in the process of signing agreements with NUoL, UN-Habitat.

- **Challenges faced and potential opportunities**

- Due to restrictions and lockdown caused by COVID-19, implementation of activities on the ground has been a challenge.
- The project is adapting the situation by decentralizing activities to provinces and supporting them virtually.



# CTCN TA - Developing a power to gas masterplan in Lao

## PDR - under implementation

- **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



# CTCN TA - Piloting innovative financing for climate adaptation technologies in medium-sized cities (GEF) - *upcoming*



- **Context:** The city of Kaysone Phomvihane City (or Savannakhet), one of the 6 cities targeted in the first CTCN TA in Laos, was selected as one of the 3 pilot cities of the CTCN multi-country TA funded by the *GEF Challenge Programme*. The TA is expected to start implementation in 2022.
- **Objective:** Identify financial tools and mechanisms for financing adaptation technologies in medium-sized cities and build relationships between municipalities, the private sector, financial markets and infrastructure funds.
- **Activities:**
  - Develop financing toolkits for medium-size cities and develop of capacity of urban planners and other stakeholders
  - Mapping and prioritizing high potential climate resilience financing solutions
  - Developing an adaptation technology financing plan for Kaysone Phomvihane City
  - Prioritizing investment projects and their financing options based on 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-size cities with potential opportunities to scale up in other medium sized cities in Laos and in the region

# 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 1<sup>st</sup> step for a national scale assessment and mapping of climate change vulnerability

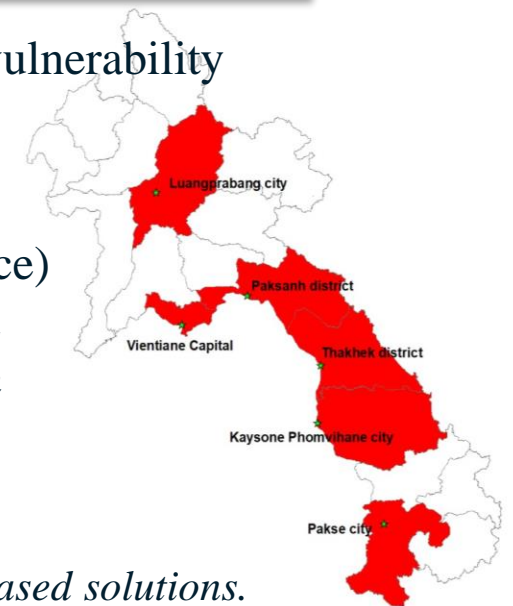
**6 VAs (2017) → 145 VAs (2021)** *The National Vulnerability Assessment Report was endorsed by MONRE in 2021 and is being distributed to all relevant sectors*

- 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..

# Ways forward for collaboration with CTCN

- Previous support of CTCN-TA/FTA to Laos were fruitful and had brought positive outcomes. However, the support mechanism should be expanded from the current short-term project-based TA support to a broader scope of interventions. The mechanism should be expanded to enable a **longer engagement** and **larger resources**
- Laos is seeking technical support to enhancing the capacity for comprehensive vulnerability assessment
- In terms of further engagement with CTCN, it is suggested to co-organize an event to raise awareness on technological mechanisms
- Laos is also seeking support for the implementation of NDC through the CTCN TA on climate technologies as prioritized in the updated NDC of Laos

## **Thank you for your attention**

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