



NIA
NATIONAL
INFORMATION SOCIETY
AGENCY

EBC-K Project 2024

FEASIBILITY STUDY ON THE DEVELOPMENT OF LAO PDR'S OGD PORTAL

Why the Feasibility Study Was Needed

Fragmented and siloed data management

- Ministries and agencies in Lao PDR collect and maintain valuable datasets (statistics, health, education, infrastructure, etc.), but these are stored in isolated systems, often in inconsistent formats.
- Lack of coordination leads to duplication, inefficiency, and limited data sharing across government

Limited public access to government data

- Citizens, researchers, CSOs, and businesses face major barriers in accessing official information.
- Most data is only published in periodic reports or PDFs, not as machine-readable datasets.
- No formal, centralized portal exists to proactively release government data.

Weak legal and policy framework for open data, cultural challenges

- While Lao PDR has a Statistics Law (2017) and a Decree on Data and Information (2022), there is no clear Access-to-Information law or default open-data licensing policy.
- Ambiguities around data ownership, privacy, and licensing discourage agencies from sharing data
- Many agencies lack staff with technical skills in data management, metadata, and publishing

OVERVIEW OF THE PROJECT Title of the project: Feasibility Study on the Development of Lao PDR's Open Data Portal

Duration of Research

January 2025 ~ September 2025
(9 months).

Implementing Organization

DGC in collaboration with Korean experts under the overall supervision of NIA and APT

Budget

The project is supported by the Extra Budgetary Contribution from the government of the Republic of Korea (EBC-K).

Scope of Project

- identifying stakeholder needs and requirements
- Conducting a feasibility study
- Developing a prototype for open data portal
- Open data study visit to Korea
- conducting workshop with stakeholders

Project Timeline

Milestone: Significant phase of the project

JAN, 2025



Requirements gathering and analysis
Project kick-off meeting
stakeholder analysis
identification of potential open government datasets

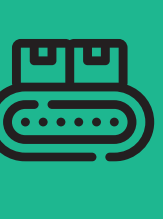
MAR, 2025



Feasibility Analysis

- Technical feasibility assessment
- economic, operational, legal and regulatory feasibility assessment
- preparations and finalization of feasibility report

MAY, 2025



Development of prototype for the portal

- Prototyping user interface
- prototyping core features for the portal

SEP, 2025

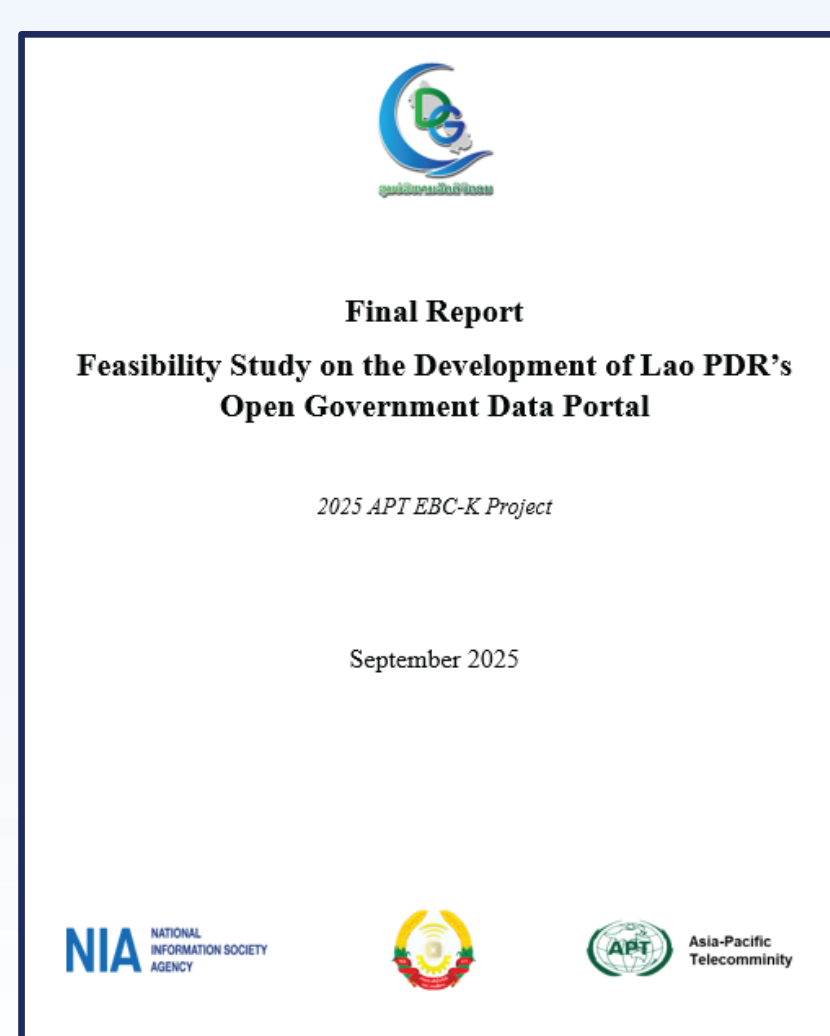


Open data study visit to Korea

- planning an open data study visit
- conducting an open data study
- Conducting workshop with relevant stakeholders

The outputs

4.1 Feasibility Study (completed) — baseline assessment of technical, policy, and institutional readiness



1.FS Assessment

- Conduct stakeholder analysis of key stakeholders, including Lao government ministries, citizens, businesses, and NGOs.
- Identify Lao PDR's potential open government data sets to be uploaded to the portal

2.FS OGD Final Report

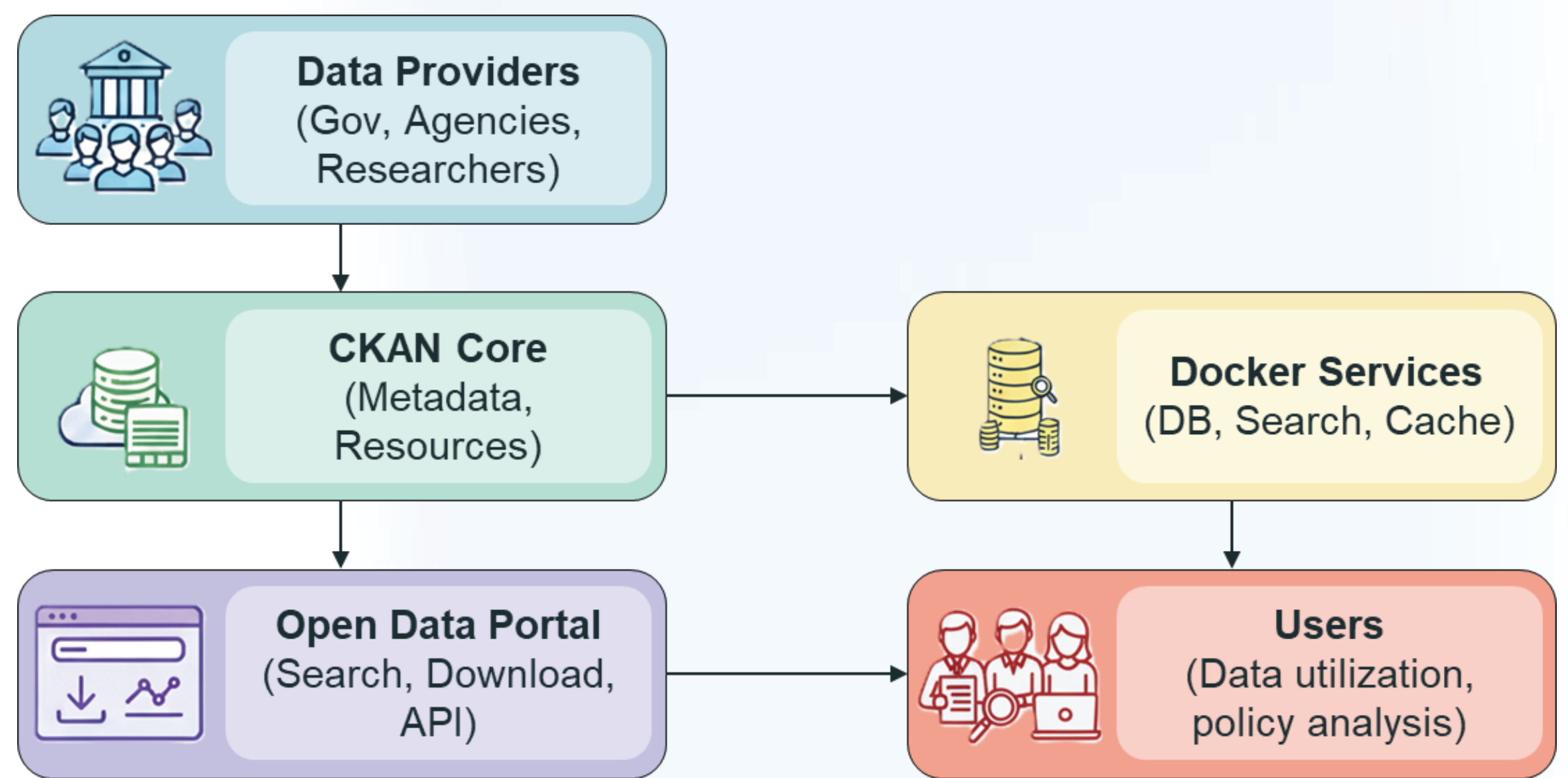
- Conducting a feasibility study
- Technical, economic, operational, legal and regulatory FS
- Finalization of feasibility report

The outputs - 4.2 Developed a prototype of the national open government data portal

- Prototype the UX/UI of the OGD portal
- Prototype core features of OGD portal to validate and design of the system



Open Data Portal Flow



CKAN-based Implementation and Localization in Lao PDR

The outputs

4.3 Capacity building program



The outcomes

Transparency and Accountability

Citizens, CSOs, and media gain easier access to reliable government data, strengthening trust and oversight

Data-Driven Governance and Innovation

Ministries use shared datasets for better decision-making, while businesses and researchers create new services and solutions from open data

Improved International Standing and Sustainable Development

Lao PDR enhances its UN EGD/OGDI rankings, aligns with ASEAN and SDG commitments, and promotes inclusive socio-economic growth

Future Plans

2026 – Foundations

- Enact Access to Information Act and revise data regulations
- Establish Open Data Governance Committee
- Build core CKAN-based portal
- Start basic training and national awareness campaign

2028 – Integration & Impact

- Integrate data with government services
- Promote data-driven policy making
- Launch data innovation challenges
- Establish data impact assessment framework

2027 – Expansion

- Enhance portal features with advanced search and visualization
- Develop sector-specific data initiatives
- Conduct advanced data management training
- Expand national awareness to specific communities

Conclusion and way forward

Conclusion

It addresses critical challenges of fragmented data management, limited accessibility, and weak legal frameworks, while aligning with the country's digital transformation strategy and international commitments.

The initiative is expected to deliver greater transparency, stronger data-driven governance, and socio-economic innovation, positioning Lao PDR as an active participant in regional and global digital development.

Way forward

1. Policy and Governance

Formalize an inter-agency OGD Steering Group and designate data focal points.

2. Pilot Implementation

Launch a CKAN-based pilot portal with 3 high-value datasets (e.g., statistics, infrastructure, health, agriculture).

3. Capacity Building and Engagement

Conduct hands-on training for government data publishers and users.

4. Scaling and Sustainability

- Expand datasets and features (APIs, automation, dashboards).
- Ensure sustainable funding and technical support for long-term operation.



EBC-K Project 2024

The Development of Learning Platform (Online and Offline) for PERMATA Remaja Programme

Project Leader: Dr. Nasrudin Subhi



OBJECTIVES

- To develop a hybrid learning support platform for offline and online integrated classes for PERMATA Remaja Programme.
- To increase learning efficiency of participants by providing a platform that can be accessed at any time.

PROJECT TIMELINE & ACTIVITIES



KEY OUTCOMES

Planning > Model Selection > Design > Development > Testing & Improvement > Completion

FUTURE PLANS

Monitoring & Evaluation
Research
(Output: Impact
Evaluation Report)

Research & Development
for Innovation
(Output: Prototype for
New Features)

Objectives

- 1

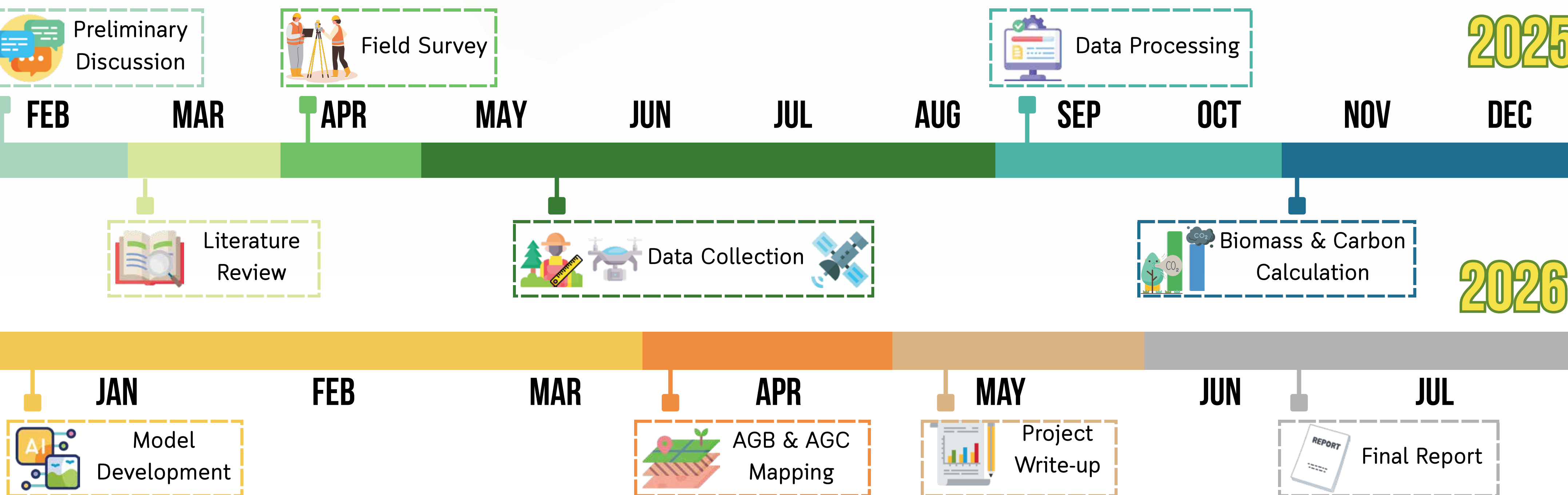
Analyze changes in tropical forest cover using remote sensing.
- 2

Estimate above-ground biomass in various tropical forest types with remote sensing and machine learning.
- 3

Identify the best combination of remote sensing data and machine learning model for accurate biomass and carbon balance prediction.
- 4

Create national maps of above-ground biomass and carbon balance for tropical forests in Thailand.

Timeline Project



Model Development

JAN

AGB & AGC Mapping

APR

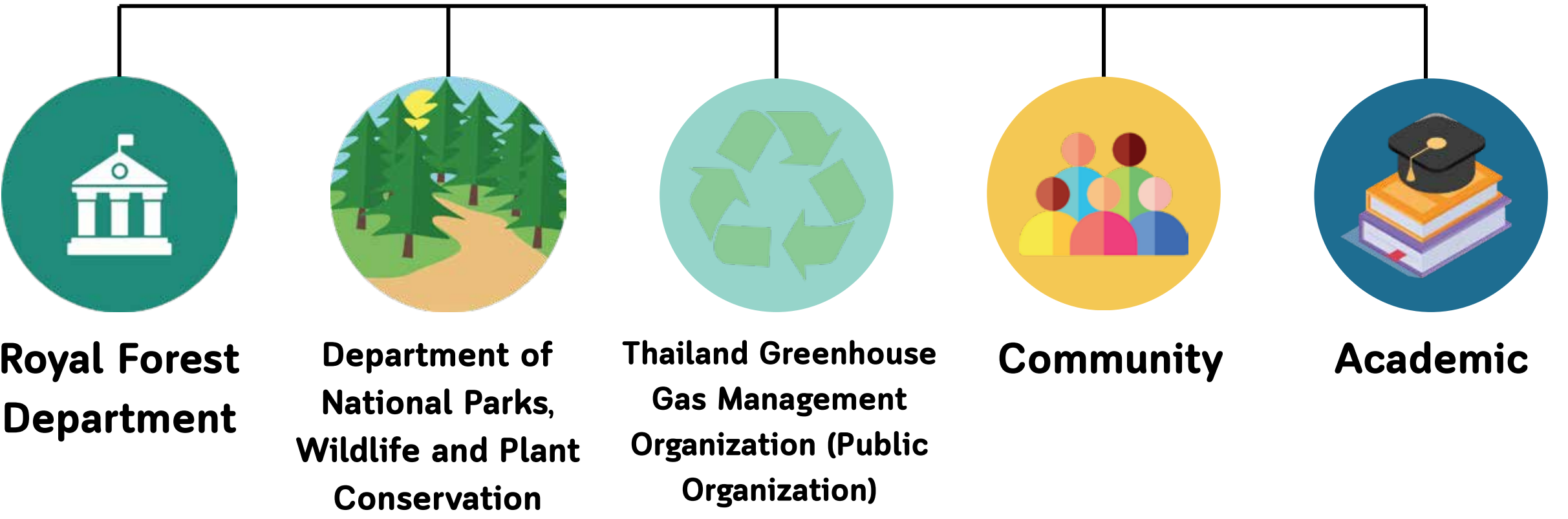
Project Write-up

MAY

Final Report

JUL

Relevant Stakeholder



In-Progress / Future Plan

- 1



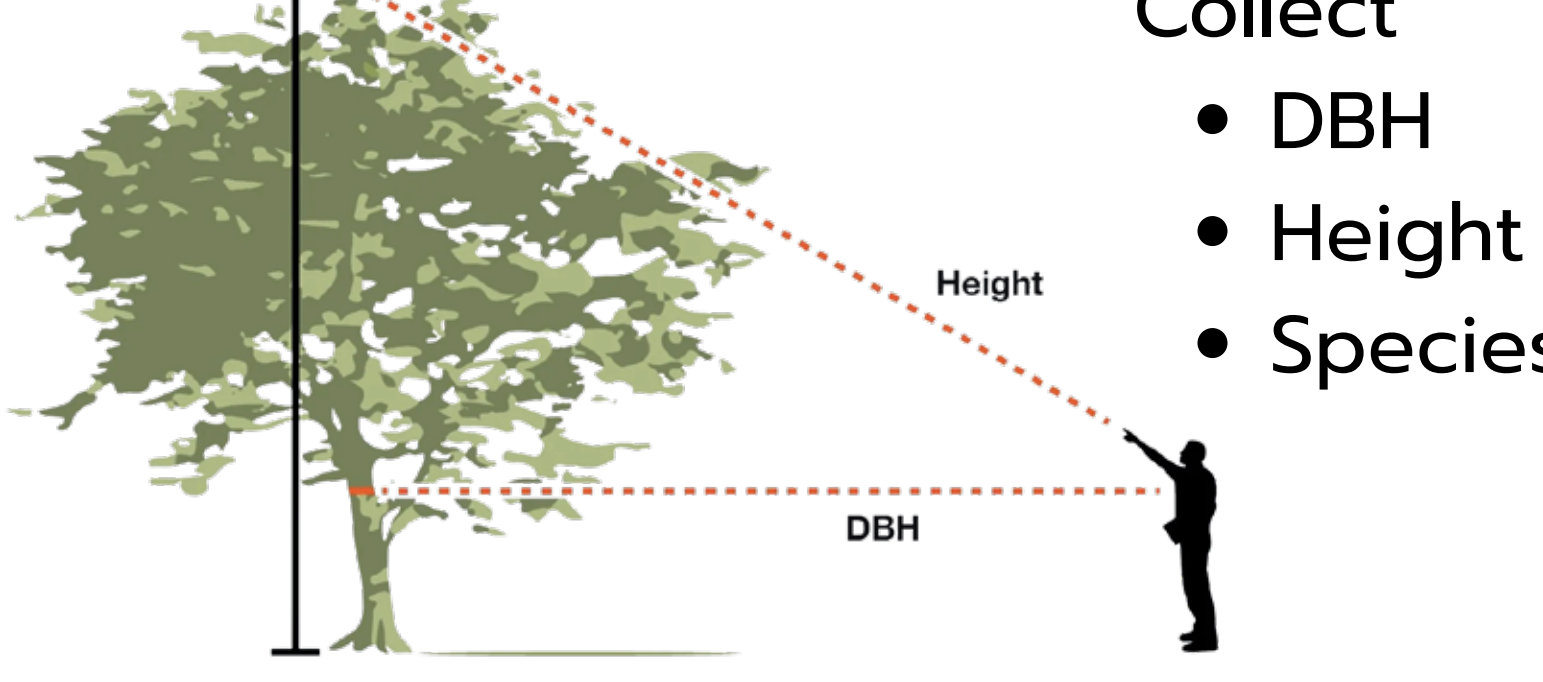
Analyze forest cover change

 - Use satellite imagery & remote sensing
 - Compare past vs present forest cover
 - Identify deforestation & regrowth trends
- 2



Field Measurement

from a sample plot (100 x 100 m2)



Collect
 - DBH
 - Height
 - Species


- 3



Calculation of forest AGB

 - Apply species-specific allometric equations
 - Compute above-ground biomass (AGB)
 - Convert to carbon stock (AGC) using IPCC factor 0.47

Table 1 Allometric Equations for Above-Ground Biomass Estimation

Forest types	Allometric equations	Reference
Dry dipterocarp forest	$Ws = 0.0396 (D2H)^{0.9326}$ $Wb = 0.003487 (D2H)^{1.027}$ $Wl = (28.0/Wtc + 0.025) \cdot -1$ $Wtc = Ws + Wb$	Ogawa et al. (1965)
Dry evergreen forest	$Ws = 0.0509 (D2H)^{0.919}$ $Wb = 0.00893 (D2H)^{0.977}$ $Wl = 0.0140 (D2H)^{0.669}$	Tsutsumi et al. (1983)

Table 2 Project Activities and Current Status

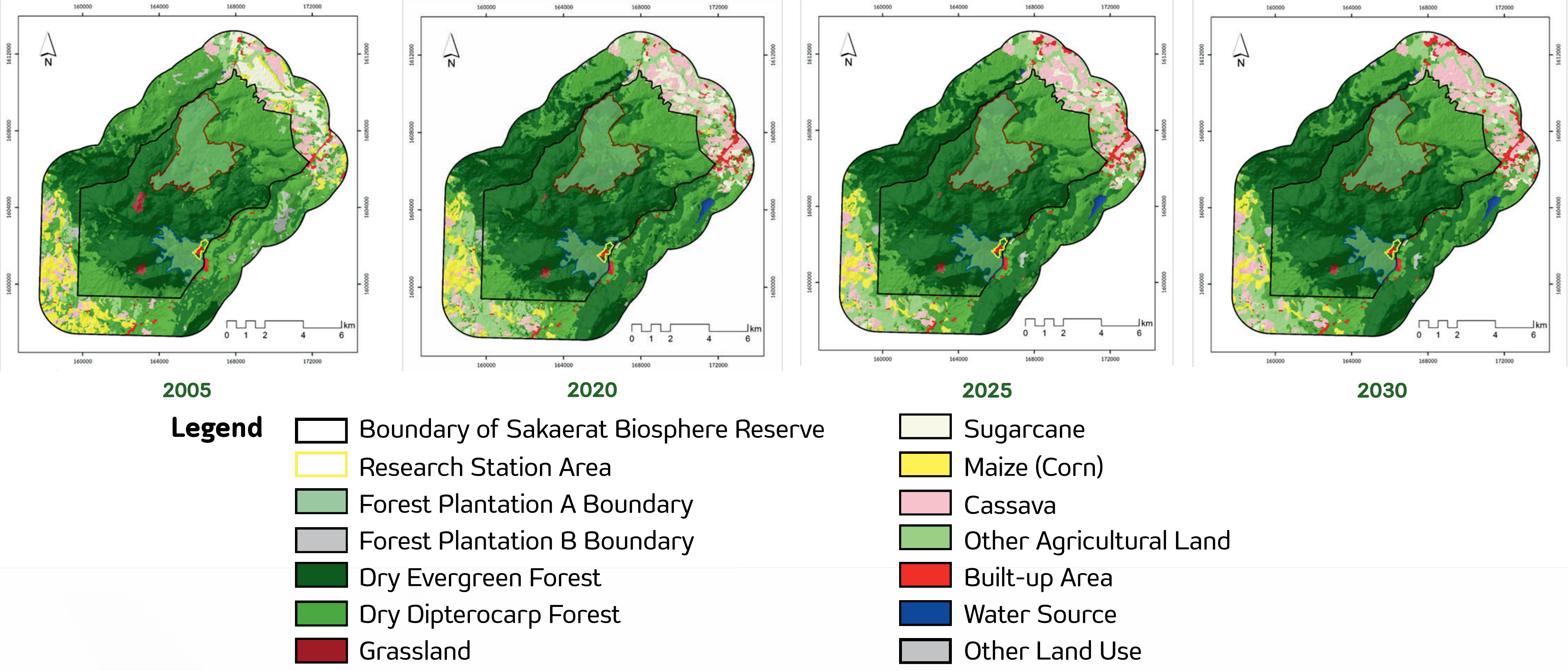
Status	Activity
On going	Data collection (Ground data and Satellite images)
Next step	1. Data processing and analysis 2. AGB and AGC mapping

collecting forest sample plots in DDF and DEF forest
measuring biomass using UAV-LiDAR



Result

Historical and Projected Land Use Change Map



Above-Ground Biomass of Dry Dipterocarp Forest

Above ground biomass (kg/ha)			
Stem (Ws)	Branch (Wb)	Leaf (Wl)	Sum
67,489.90	13,055.07	1,838.96	82,383.93

Carbon stock of Dry Dipterocarp Forest

Carbon Sequestration (kg C/ha)			
Stem (Ws)	Branch (Wb)	Leaf (Wl)	Sum
31,720.25	6,135.88	864.31	38,720.45

Carbon stock of Dry Dipterocarp Forest is 38.72 t C/ha