



Strengthening Synergies



Master Plan Establishment and Capacity Building for the Modernization and Advancement of Hydro-meteorological Infrastructure at Mekong River Basin in Lao PDR

By Weatherpia Co., Ltd.

MKCF Projects Roundtable Meeting / May 10, 2022

Project Overview

- Duration: April 1, 2019 ~ January 31, 2022
- Description

1. Environment Analysis (External and Internal)

External analysis prioritizes on the circumstances, and environment of target countries and internal analysis focuses on the national policy and organizational strategies of target countries and agencies. With the analyzed data gathered, SWOT analysis will be conducted.

2. As-Is Analysis

The goal of this stage is to precisely diagnose the current status of national hydro-meteorological services and infrastructure of DMH-Lao PDR. Analysis will cover all hydro-meteorological fields of DMH, define challenges and problems, and figure out directions to improve.

3. To-Be model establishment

Based on Environment and As-Is Analysis, experts of the PIA will establish a To-Be model with accumulated experience. During this stage, the needs of DMH will be assessed through discussion. After this, PIA will draft the ideal future model for DMH. The model includes essential factors of modernization and advance national hydro-meteorological services of Lao PDR such as automation of observation, comprehensive information system, automation of data collection and dissemination, quality control, organizational advancement, etc.

4. Action Plan establishment

Based on the To-Be model, an Action Plan will be developed by the PIA with the addition of detailed financial statements as it is essential for the Master Plan implementation and development of future pilot projects targeted towards feasible donor organizations. For this project, PIA will design a pilot project utilizing ODA funds of Korean government and will try to request the project through official project request procedures. Furthermore, the team will closely cooperate with the World Bank project team

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Hosting three invitation programs for the relevant officials and technicians



01

1st Trip for Environmental Analysis

Visiting all hydro-meteorological
observing equipment-installed
sites within and around the DMH
HQ area



1st Trip for Environmental Analysis

(August, 2019)

Overview

- This 1st visit to Vientiane, Lao PDR was conducted as a part of the project “Master Plan Establishment and Capacity Building for the Modernization and Advancement of Hydro-meteorological Infrastructure at Mekong River Basin in Lao PDR,” implemented by Weatherpia Co., Ltd., funded by MKCF
- As an initial phase, we had kick-off meeting with DMH officials and conducted interviews with all DMH divisions. Furthermore, the team visited all weather observing equipment-installed sites at the DMH HQ

Contents

- To have kick-off meeting with high-level officials including Director General and division heads and had a interviews with all divisions
- To visit all hydro-meteorological observing equipment-installed sites



Observation field

Satellite dish



Water level gauge

Data book archives



1st Trip for Environmental Analysis

Outcomes / Challenges

- Based on the data and information obtained through this visit, the current and general status of DMH will be organized in accordance to the Weatherpia's methodology and drawn as As-Is Analysis
- We visited all hydro-meteorological observing equipment-installed sites within and around the DMH HQ area such as observing fields, satellite receiving system including their antennas and river water level meters.
- We carried out field survey with officials from relevant divisions including Mr. Viengxai Manivong had an interview with DMH officials from 7 divisions including division head



02

2nd Trip for As-Is Analysis

Conducting field surveys to understand the current status of DMH's infrastructure



2nd Trip for As-Is Analysis

(September, 2019)

Overview

- This 2nd visit to Lao PDR is conducted as a second phase of master plan establishment program, the team had a meeting with MdNRE officials and visited representative station and regional offices to understand DMH's current status of infrastructure as well as work process

Contents

- To have a meeting with MoNRE's high-level officials to discuss further cooperation
- To have a meeting with DMH's high-level officials including Director General and division heads
- To conduct field surveys in the regional offices and weather stations to understand the current status of DMH's infrastructure



Pakse International Airport

Paksong



Hat Xai Khun

Nikhom 34

2nd Trip for As-Is Analysis



Outcomes / Challenges

- Based on the data and information obtained through this visit, As-Is analysis has been elaborated
- Had a meeting with both MoNRE's high-level officials and DMH's high-level officials including Director General and division heads
- Conducted field surveys in the regional offices and weather stations to understand the current status of DMH's infrastructure and advise them what they are supposed to carry out in the future
- Due to the heavy rain and serious flood in the Southern region during the trip, the original schedule was modified but the team was able to visit stations that are representative and important stations of DMH



03

Capacity Building Invitation Program

Hosting three invitation
programs for the relevant
officials and technicians



Capacity Building Invitation Program

(August, 2019)

Overview

- As a capacity building program, the project plans to host three invitation programs for the relevant officials and technicians, and this is the very first program for the high-level officials from the MoNRE of the Lao PDR

Contents

- To visit a range of meteorological and hydrological agencies including KMA and its regional offices, observation stations, and specialized meteorological centers to share and improve understanding and good practice in the management and operation of national meteorological and hydrological services
- Based on the mutual understanding built during the program, it is expected between both parties to pursue more constructive discussion and better decision making for successful implementation of the project.



Aug 11, Royal Palace



Aug 11, Welcoming banquet



Aug 12, KMA HQ



Aug 12, KMA HQ



Aug 13, NCMS



Aug 13, NMS



Capacity Building Invitation Program

Outcomes / Challenges

- By visiting the KMA HQ, NCMS, NMSC, AMO, KMA regional office and K-Water, the team was able to build a practical understanding of the modernization of national hydro-meteorological information system
- The result of the MKCF project, the Master Plan will suggest a modernization model for the DMH. We believe that this can be developed as a further project proposal, and the project partner, Weatherpia Co., Ltd., is willing to support this to be developed as an ODA project proposal to the Korean Government
- Due to COVID-19, we have not been able to carry out all the invitation program and plan to have two more invitation programs in Korea in September~October. We will make up the program by visiting the HQ of KMA, National Meteorological Satellite Center, National Supercomputing Center, Typhoon Research Center, and etc.



What's Next



What's next

- ❖ **Due to COVID 19, duration of the project has been extended to January 2023. Weatherpia will carry out the remaining tasks, including two invitational training programs, until the end of the project**
- ❖ **Conducting a local workshop in Lao PDR in early June, 2022**
- ❖ **Submitting project deliverables (before Dec. 2022)
: Master plan report, result report on training program, and business trip report**

Thank you