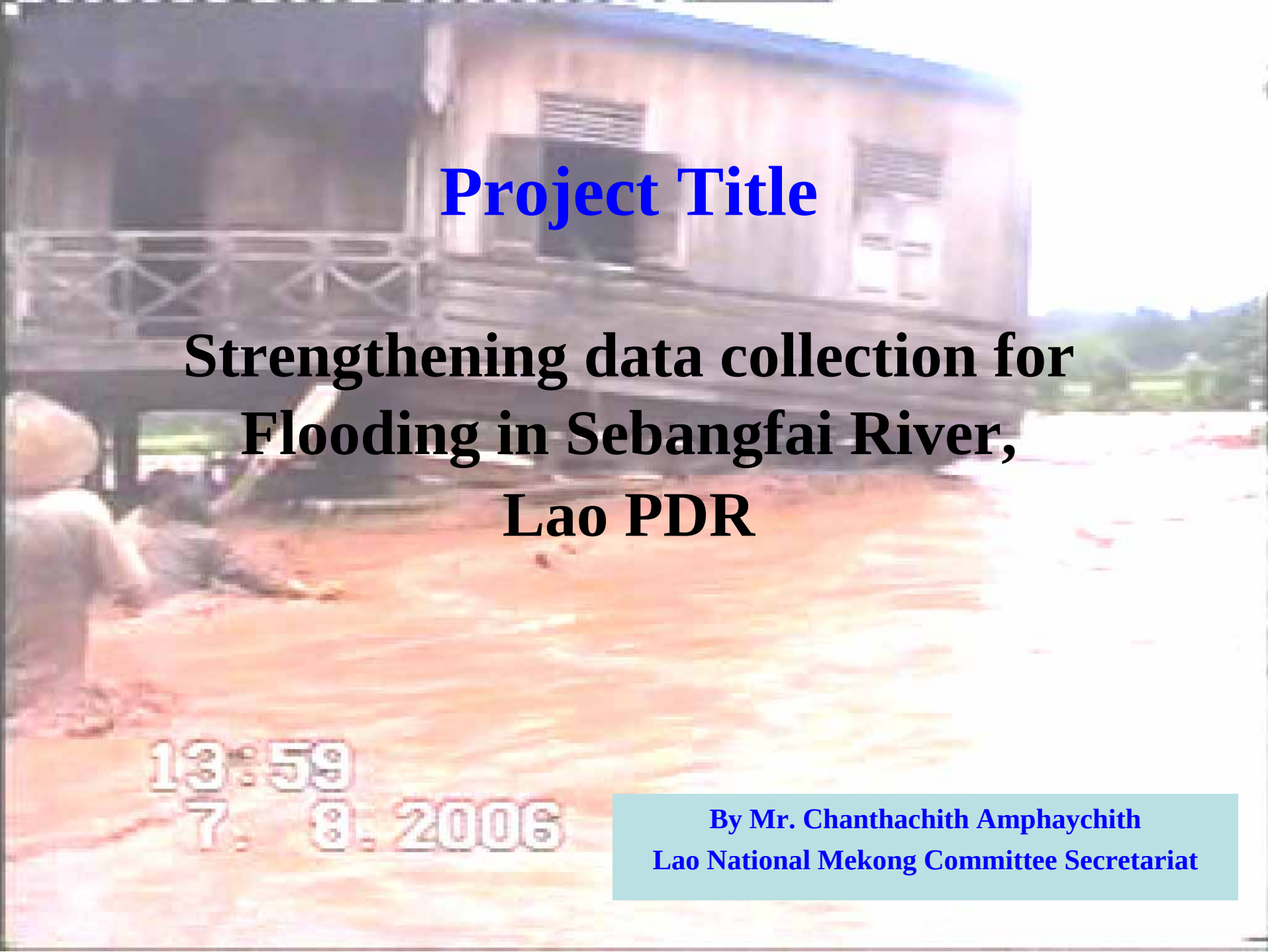


Project Title

Strengthening data collection for Flooding in Sebangfai River, Lao PDR

By Mr. Chanthachith Amphaychith
Lao National Mekong Committee Secretariat

Overview

The Mekong river pass Lao territory about 1950km, contains 28 tributaries (12 main tributaries).

- ✓ The Sebangfai River is one of the major tributaries of the Mekong river in Laos and flows in the Khammouane and Savannaket Province.
- ✓ The meaning of the SeBangfai River: Se is Water: Bangfai is bamboo rocket in Lao. On May of every year, the rocket festival is celebrated.
- ✓ Catchment area= 8560 km2; length of 190 km and flows from the Vietnamese border in the southeast-northwest direction to Boualapha District and changes direction to the west to Mahaxay District and then turns from the northeast-southwest into the Mekong. Map.ppt
- ✓ Average discharges of 380 m3/s in the dry season and 815 m3/s [SCI, 2002] in the wet season.
- ✓ Average annual precipitation is 2 300 mm and the annual discharge at bridge on Highway 13 is 431,7 m3/s (1961~1997).
- ✓ since 1990, the total population in the basin is estimated to reach 192.200 in 1998. Geologically, the whole basin is composed of Mesozoic cretaceous, Jurassic, Triassic to Davonian Palaezoic.

Basic Data

Name: Sebangfai River

Location: Khammouane N 17 o 29’ 48” and E 105o 25’ 42”

Basin Area: 8 560 km2

Length of the main stream: 190 km

Origin: Saiphouluang (2 200 m)

Highest Point: 1 397 m

Outlet: Highway Bridge

Lowest Point: 150 m

Main tributaries: Nam Gnom (24 km2); Nam Oula (320 km2); and Nam Senoy (112 km2)

Main lakes: None

Main reservoirs: None

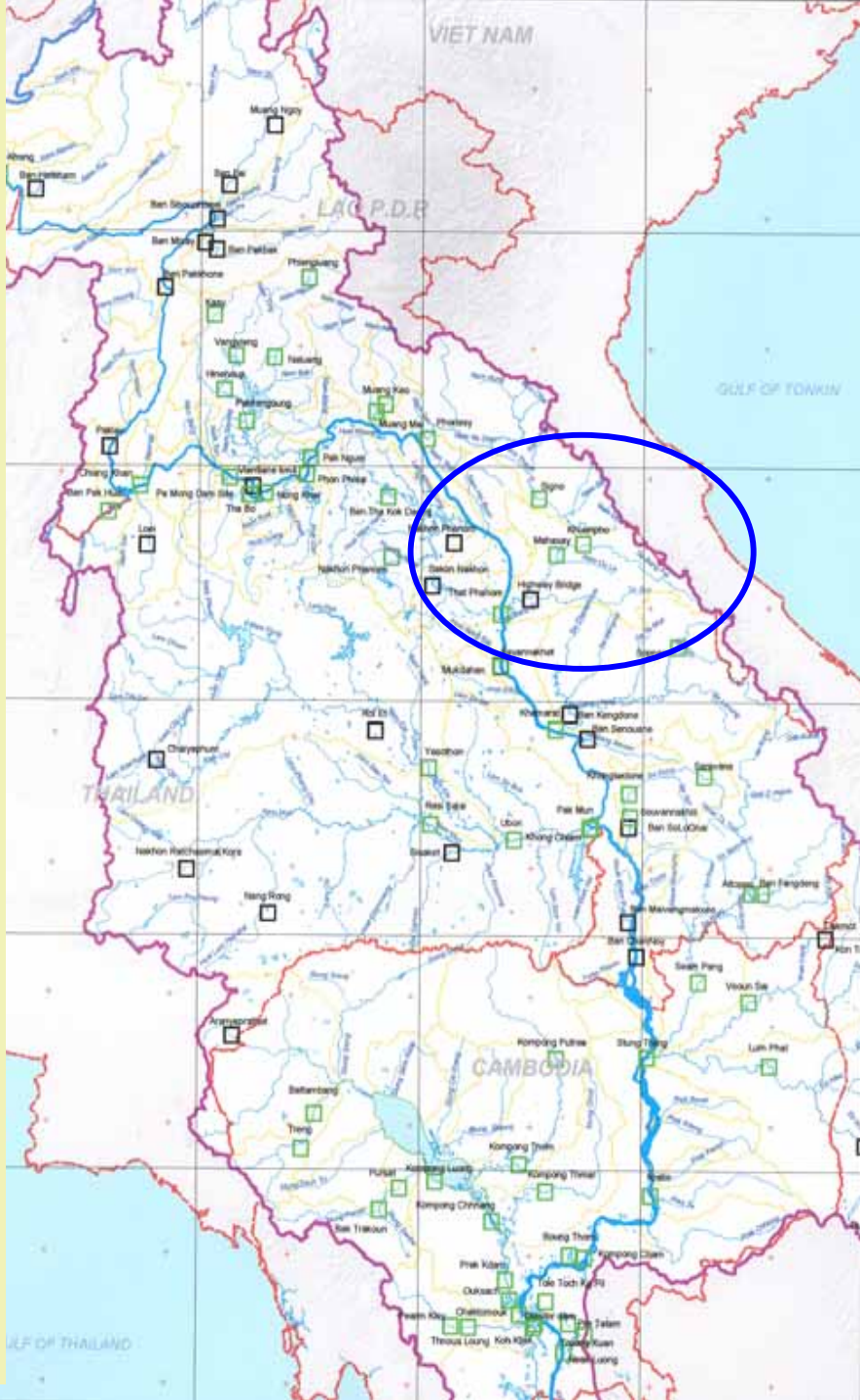
Mean annual precipitation: 2 300 mm (1985~1998)

Mean annual runoff: 431,7 m3/s at highway bridge (1961~1997)

Population: 192 189 (1998)

Main Cities: Mahaxay, Thakhek

Land use: Forest (59 %); Agriculture (10 %); Paddy field (20 %);



Justification

- The main problem of the Sebangfai River is:
  - Inundation (Agriculture Flood)
  - The Sebangfai River starts to meander in sandy banks due to the low gradient of the channel in the downstream region.
  - In this lower region of the Sebangfai River the flood plains of the Mekong River inundates almost every year during the rainy season and causes a backwater flow into the Sebangfai River.
  - Backwater from high discharges in the Mekong River causes a flow to be reversed. Then general inundation of up to 1, 5 meters occurs in the lower areas [NT2, 2004].
  - Local people losses agriculture crop caused by these floods.
  - The area of the Lower Sebangfai is fairly densely populated with 52 villages and 40000 ha of rice fields.
  - The Lao government wants to find a solution for this problem and it has asked the Lao National Mekong Committee (LNMC) to study the surplus of water in the Lower Sebangfai River basin.

Objectives

- The local communities will involve cooperating and integrating in water resources management with sustainable water resources development. Especially to mitigate/minimize impact from flood.
- Improve national agency and local people use of information technology as well as access to necessary meteorological and related data and information.
- To strengthen national capacity in using data at the national level, to improve access to weather and other environmental information, as well as research and development
- community make their ‘good works to do a good job with sustainable’ available to improve local livelihoods.
- To exchange and shearing near real time and real time data information with WMO standard between local and regional as well as international level.

Timeline: 2007-2010

- **Phase 1- Establish local team implementation for data collection and introduction:**
  - **objectives of AWCI and DP to line agencies concerned into local**
  - **communities for developing information system and promoting the implementation of IWRM**
- **Phase 2- Identify work plan and send to UT Team for consideration and comments how to achieve the objectives goal of DP in AWCI.**
- **Phase 3- Preparation phase:**
  - **Site visit and survey of capabilities for data collection**
  - **To make a bridge between central and local information based on how to send the information to local people to know the situation weather during rainy/flood season.**
- **Phase 4- To install appropriate equipment for water level and precipitation Stations in some needed areas for achieving activities and data information.**
- **Phase 5- Expanding to other areas as priority of the Government Strategy**
- **Phase 6- Need specific training for improving staff skills and knowledge on these issues in the near future.**

Partners and Participants

- **LNMCS, coordinator agency**
- **DMH and WAD, data collection and service**
- **NDMO, communicate with local communities**

What do we need??

1. Trainning???

2. Equipments???

- 1.1 PC Computer note book
- 1.2 USB 512M Handy Drive
- 1.3 Digital Camera
- 1.4 LCD projector
- 1.5 External Hard Drive USB 2.0 “Seagate” (100 GB)

- Others……

Outputs/ActivitiesActivity01.ppt

Output1:

Local people have involved integrating water resources management for mitigate and minimize damage from flood

Activities:

1.1 Establish team implementation
1.2 Introductory objectives of AWCI to all levels concerned
1.3 Details work plan
1.4 Developing/promoting existing data Information system
1.5 Site field visit
1.6 Install flood staff gauge for communities
1.7 Install appropriate stations
1.8 Network improving between center and local communities
1.9 Provide some equipment to local communities for early warning system
1.10 Install wood board for communities
1.11 Provide information on weather and flood forecasts basis through the National Radio Center and TV.
1.12 To select the pilot project areas

Outputs/ActivitiesActivity02.ppt

Output 2:

Data information has improved in national level how the people use that information into his/her daily job.

Activities:

2.1 Identify existing data Information to mach with Standardize

2.2 Dissemination data information to line agencies and data sharing with AWCI

2.3 To aware the line agencies and local communities about the weather and flood forecast information

2.4 Improving information system into local communities

Outputs/ActivitiesActivity03.ppt

Output 3:

Make and build capacity with develop people have a good works to do a good jobs in the near future

Activities:

3.1 Improving access to weather information to all levels concerned

3.2 Training with technicians fully trained and capable of installing and maintaining equipment.

3.3 On the job training, at local communities on the FM Radio, HF Radio receiving

3.4 Provide some tools and office equipments

3.5 Conduct local consultation meeting with line agencies concerned

3.6 Specific training on satellite forecasting and watershed management

Outputs/Activities Activity04.ppt

Output 4:

System of coordination and cooperation between national and regional as well as global cooperation will be increased step by step

Activities:

4.1 Improving coordination system in all levels Through internet and with other appropriate network

4.2 Access satellite by cooperation with WMO and other organizations

4.3 Lesson learning from global organization into local “by learn to do and do to learn”

Needs and Proposals

- Establish National Team (DMH, WAD, NDMO) with introduction about the AWCI
- Improvement of access to exist data information for flood forecasting, network setting/improving from local to center into global
- Training (database mgt.,GIS, watershed mgt, etc…)
- Improving coordination system through websites

For Strengthening data collection and data sharing with sustainable development:

- **To strengthen national capacity at the national level, (such as specifics training, etc…)**
- **Tools with installation as well as equipment training (equipments, software, etc…)**
- **Technical help**

Conclusion:

- **AWCI could be designed frame work of coordination between AWCI & ITT**
- **AWCI should be conducted workshop/training for ITT to do their job to be related the objective of AWCI/GEO as much as possible**
- **Details plan of DP should finalized**
- **Data Format**


Asia Water Cycle Initiative (AWCI)
International Task Team (ITT) Workshop
Thank you