

Report on Water Disaster Management in Lao PDR

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I. Introduction

- ☐ Landlocked country
- ☐ Three geographical regions:
Northern, Central and Southern
- ☐ Population of 6,205,341
- ☐ Area of 236,800 square Km;
80% mountainous areas 20% lowland (Population concentrated & economically active areas)
- ☐ 80% of population depends on the subsistence farming
- ☐ Mekong River Length: 1,865 km (flow through Laos)
- ☐ There are 13 major tributaries

I. Introduction (Con't)

Major Disaster in Lao PDR

- Flood and drought are the major natural disaster in Lao PDR.
- Almost every year these disaster occurred and killed people lives and damaged to infrastructure of irrigation, transportation, public works, school, houses, water, sanitation and etc...
- These disasters also contributed a great negative impact to country development.



II. Impact of Typhoon to Agriculture Land in 10 years (2000-2010)

Flood from Ketsana Typhoon in 2009



Affected Province: 5

District : 43

Village : 822

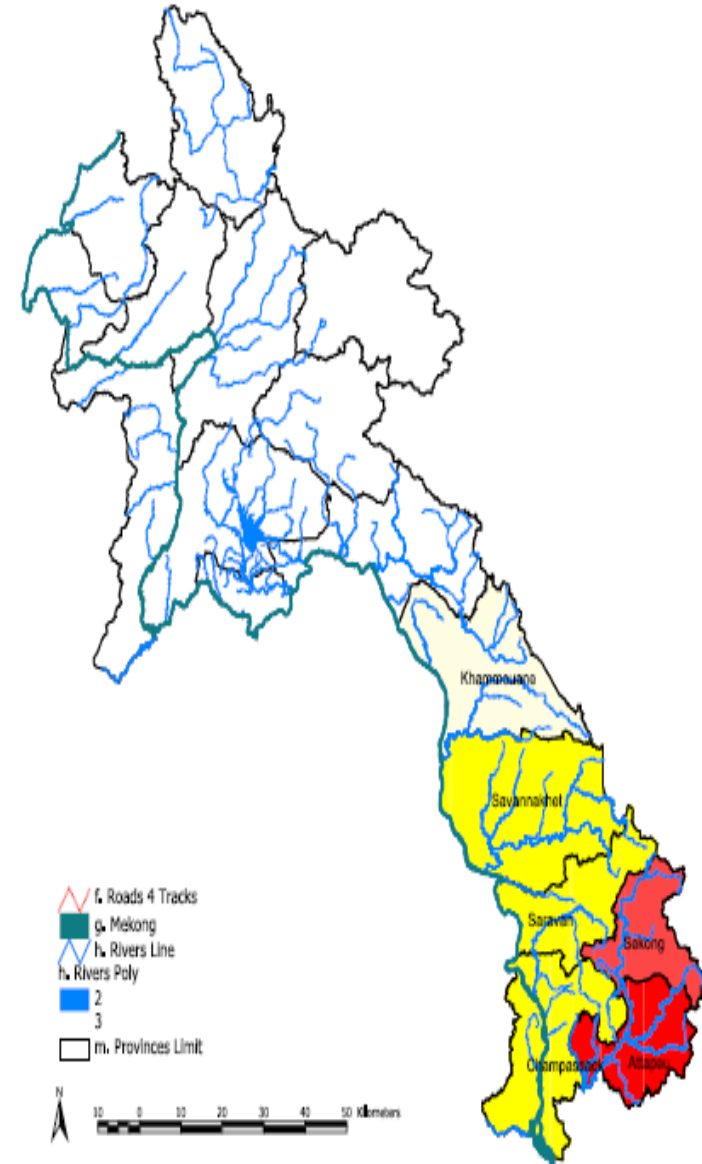
Affected people: **272.943**

Death : **28** people

Disappear : 1

Wound : 91

TT. Cost of Lost **US\$ 58 M**



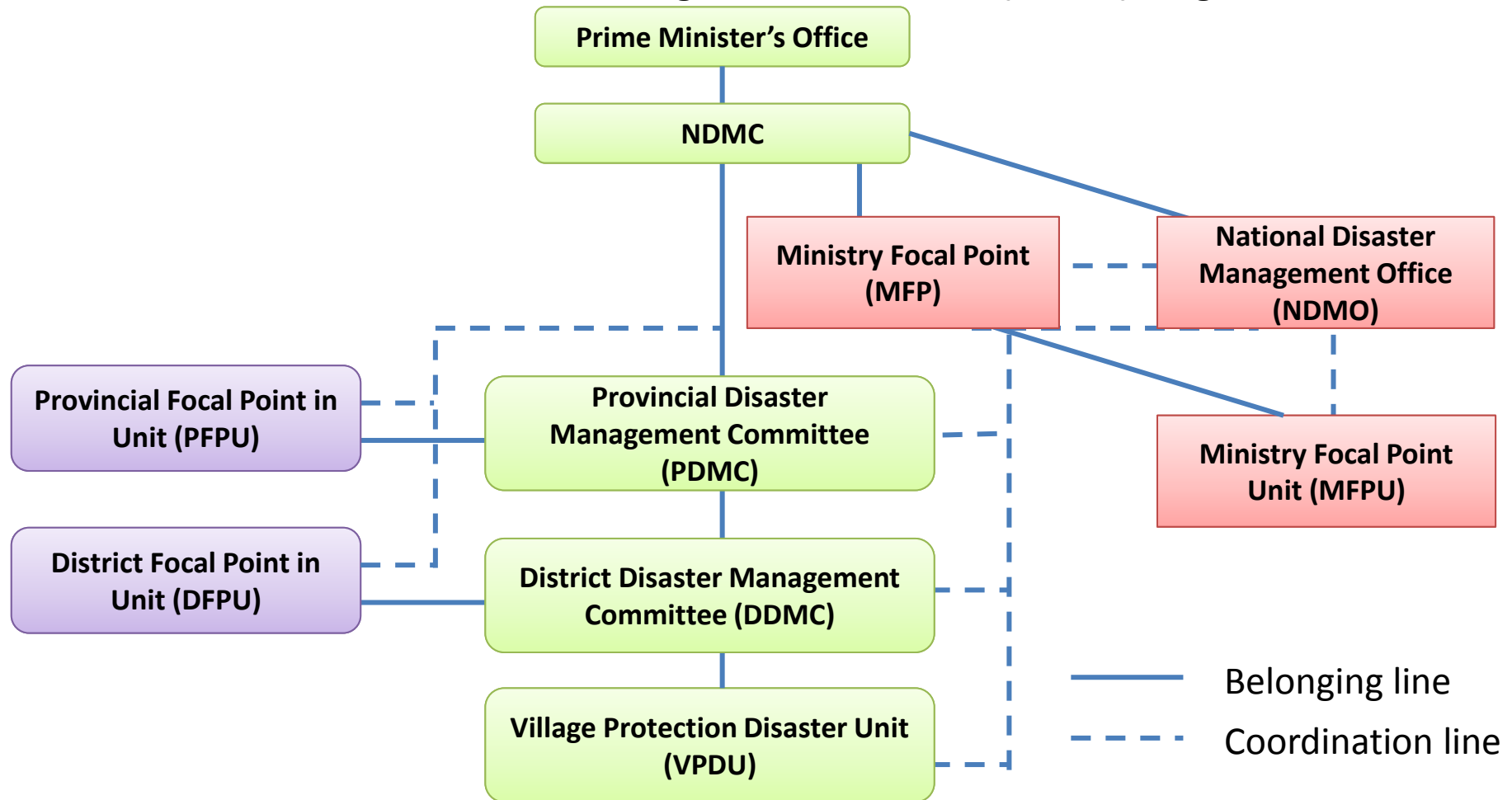
Flood from Nokten and Haima Typhoon in 2011

- 12 Provinces were affected, 96 Districts, 1,790 villages, 82,493 households 429,954 people.
- Destroyed agriculture infrastructures, public works and transport, schools, hospitals and so on with the cost of lost more than US\$ 221 million.

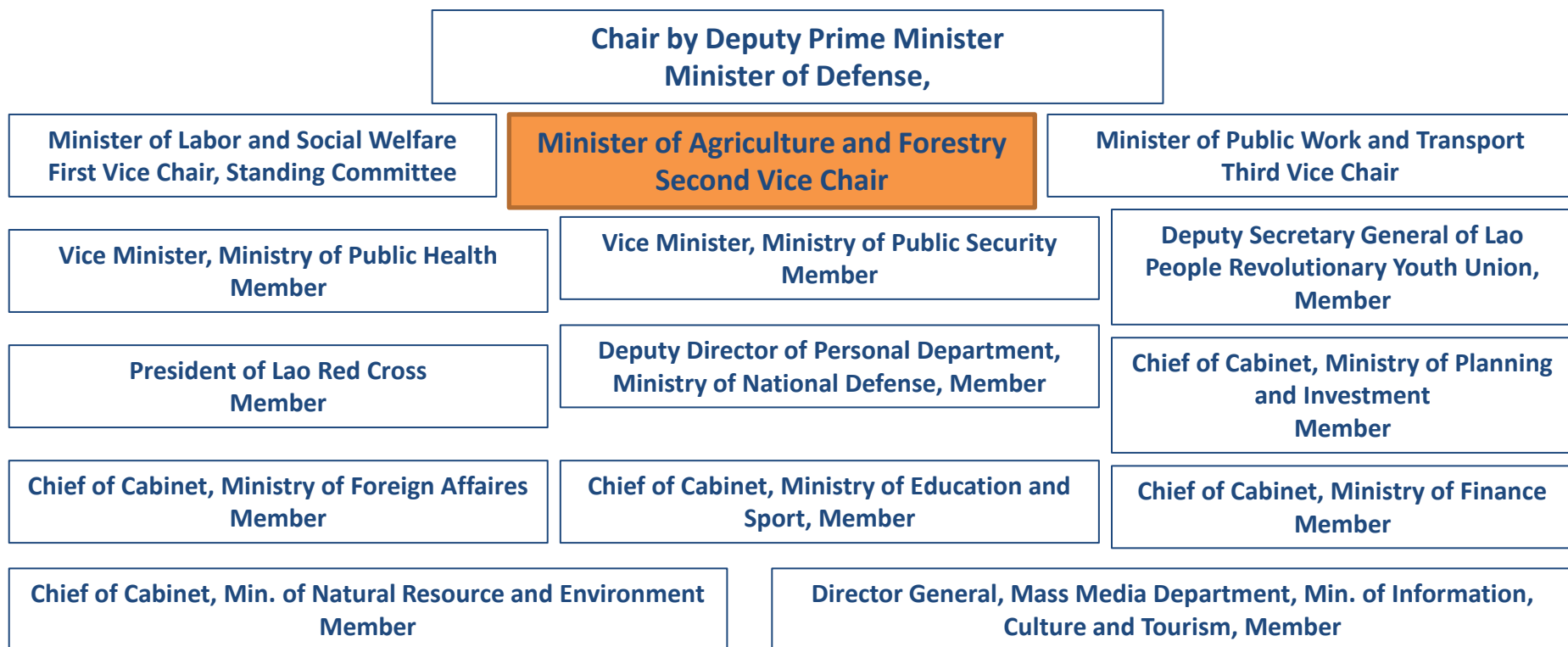


III. Disaster Management Policy and System in Lao PDR

The National Disaster Management Committee (NDMC) Diagram

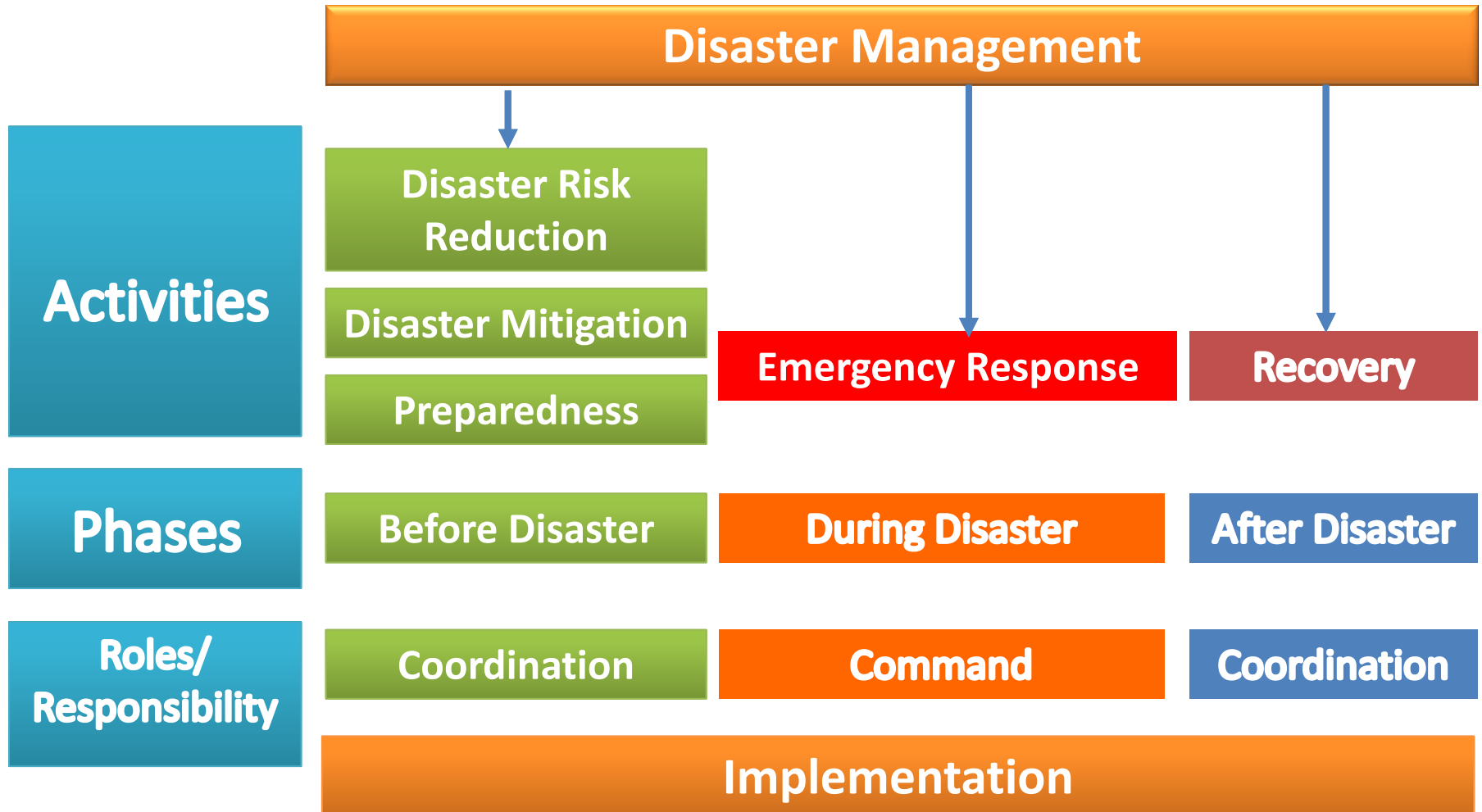


The National Disaster Prevention and Control Committee



- The Government had reformed the Disaster Management Institution and issued the Prime Minister Decree No. 373, October 21, 2011.
- Under this decree Disaster Management Committee has been strengthened and more high level institution, and change the name from National Disaster Committee to be National Disaster Prevention and Control Committee.

Disaster Management and Roles of The National Disaster Prevention and Control Committee



IV. Measures to Prevent Natural Disaster

- Measures for flood prevention:
 - Follow up hydrology data and information from the region and the world and also issue notification to local levels to aware of and preparedness of before occurrence of disaster;
 - Repair and upgrade river banks to standard levels to ensure flood protection and build new banks, control gates if necessary;
 - Feasibility study, identify flood maps and find out solutions in accordance with local circumstances;
 - Coordinate with hydro-power plant to manage water and to prevent flood;

Measures to Prevent Natural Disaster

- **Measures for flood prevention (Con't):**
 - Prepare mobile pumps in case of emergency in flooded areas.
 - Checking drainage systems, drain culvert, road culvert and stream canal to easily drain water;
 - Gradually Upgrading natural drainage canal;
 - Pay attention on warning flood, provide knowledge on hydrology, follow up water level at important station in order to forecast flood conditions to people;
 - Training on flood protection should be delivered to irrigation officials at provincial and district levels to collect daily water level in the rivers where flooding occurred.

Measures to Prevent Natural Disaster

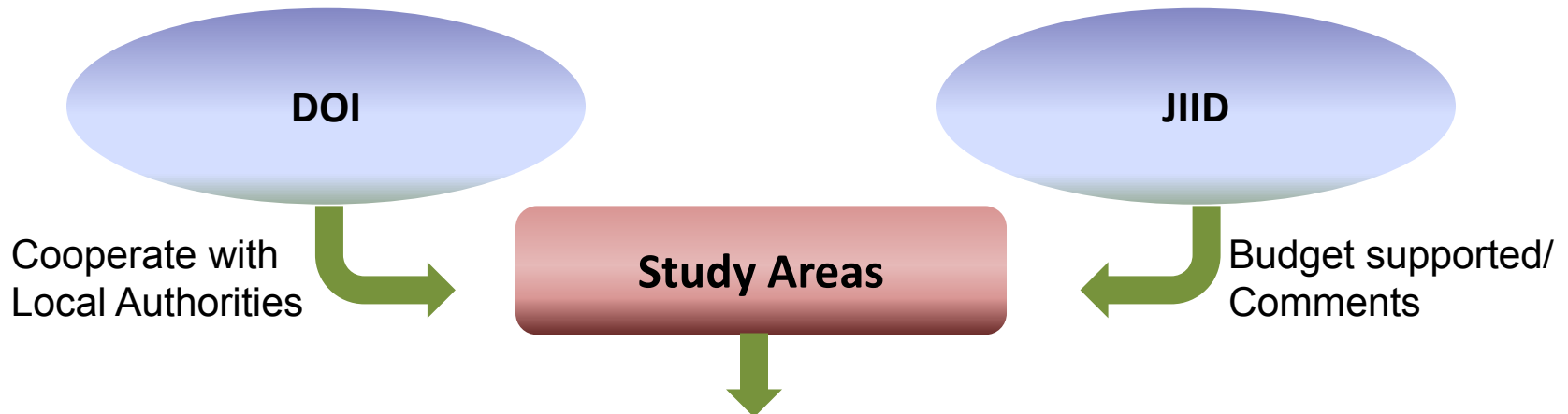
- Measures for Drought prevention:
 - Study and Survey drought areas;
 - Construction of irrigation infrastructures such as: reservoir, weir, gates, pumps (electric and diesel), diversion, digging ponds, drilling well to recover agricultural land;
 - Study potential of available surface water source in catchment area nearby;
 - If necessary study ground water to supplement.

Measures to Prevent Natural Disaster

- Measures for Drought prevention (Con't):
 - Rehabilitation of irrigation systems that suffered from flood in order to serve irrigated area in dry season;
 - Utilization of mobile pumps;
 - Closely cooperate with organizations concerned with direct and indirect contact in particular meteorology-hydrology, MRC, Nam Ngum dam for water level management and etc.

Technical Cooperation supported

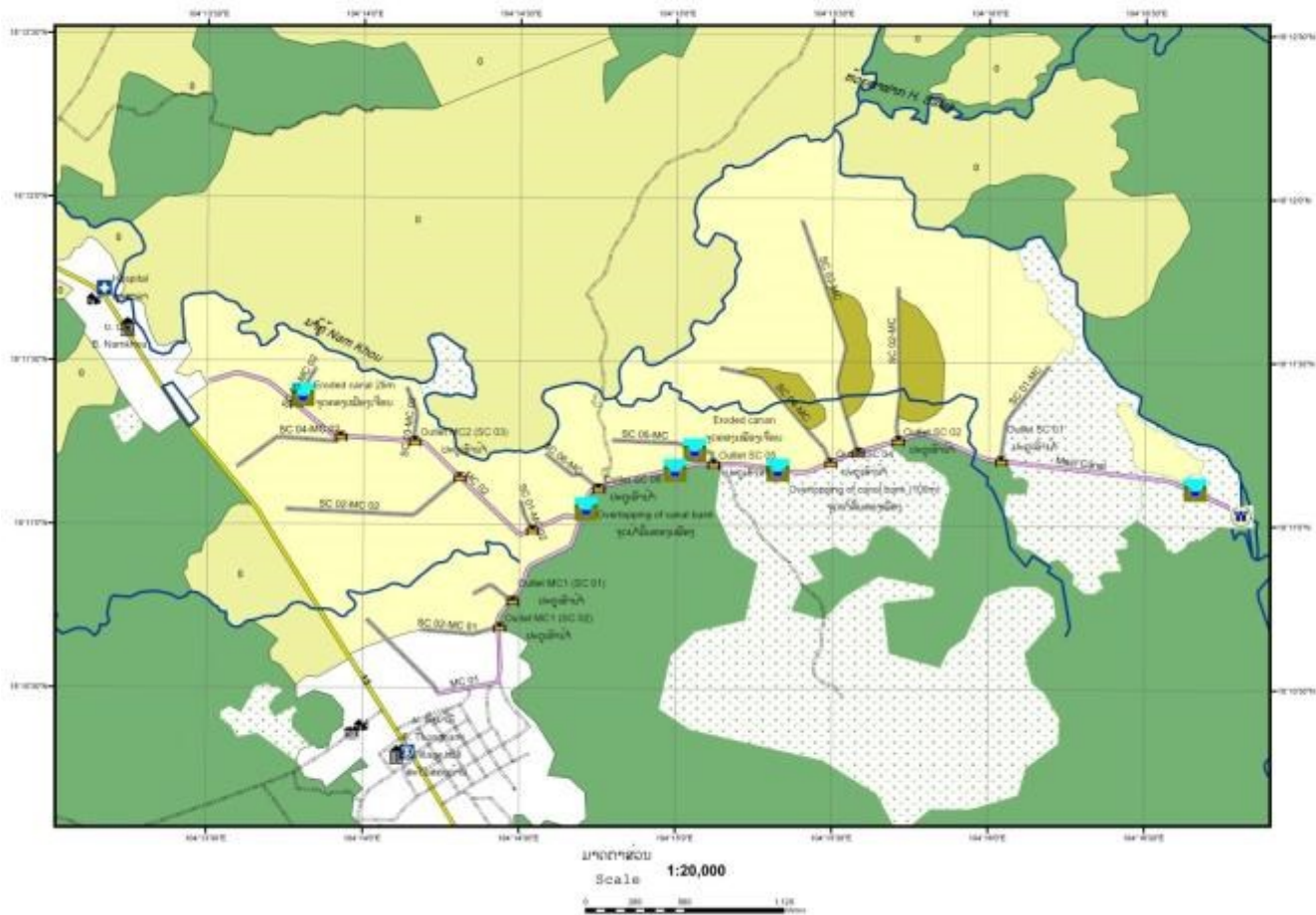
The Study on Measures for Strengthening Disaster Prevention in Rural Area caused by Climate Change



- Preparation of hazard map with participation of villagers or farmers;
- Implementation of needs survey through workshop to clarify requirement for improving O&M activity;
- O&M improvement activity farmers or water user group member is a main stakeholder as labor force, PAFO support technical advisor and some heavy machine and DAFO staff support for technical advisor and coordination between farmers and staffs.

Site study location map

ແຜນທີ່ເຕືອນໄພນ້ຳຖ້ວມ ໂຄງການຊົນລະປະທານ ນ້ຳຄູ່
Hazard Map of Nam Khou Irrigation Project



Recommendation

- ASEAN countries support new technology by providing software to estimate/predict flood and drought areas;
- ASEAN countries assist in providing training to Lao officials on climate change knowledge and measures to response natural disaster;
- Neighboring countries to provide lessons learned, prevention and measures on disaster risk management.



Thank you