

Developing A National Risk Profile

For Lao PDR



Progress Report

Period March 2010 – June 2010

Preamble

The Asian Disaster Preparedness Center (ADPC), in collaboration with the Public Works and Transport Institute (PTI) of Lao PDR has been awarded to deliver Consulting Services for the study of “Developing a National Risk Profile for Lao PDR. The key national partner of ADPC is the National Disaster Management Office (NDMO), its provincial disaster management offices, as well as other line agencies. The project aims at national level mapping of all hazard prone areas, assessing the exposure to life and properties, potential damages, associated economic impacts and development of comprehensive strategy for disaster risk reduction. The project is scoping to develop geological, hydro-meteorological and manmade risks profile and recommendation for national level disaster risk management. This progress report is submitted by ADPC to the UNDP and NDMO to highlight the issues and progress in the project execution as a part of the project deliverables.

ACTIVITIES CARRIED OUT

1. Meeting with Project Partners

Initial meeting was held with project partners, Public Works and Transportation (PTI) in March 2010 in Vientiane. Further meeting was held with the UNDP to brief about the project planning strategy. Since the National Disaster Management Office (NDMO), Lao PDR is focal agency of disaster management in Lao PDR, ADPC along with PTI and the UNDP briefed about the project.

In view of importance of national hazard and risk assessment, the ministry agreed to provide all necessary support in technical and administrative aspects of project implementation.

2. Introductory Workshop

Before commencement of the project, the formal meeting was held with several line ministries, departments and agencies for technical and administrative collaboration. The introductory workshop on Developing National Risk Profile was held on 9th March 2010. The objectives of the first introductory workshop were to present project and work plans to a wider audience, and obtain their feedback on the project, draft term of reference & members for the technical working group. There were 38 participants representing various national level

ministries, department, academia, UN agencies and NGOs. These participants were included officers of Ministry of Home Affairs, Ministry of Physical Planning & Works, Ministry of Water Resources, Department of Water Induced Disaster Prevention (DWIDP), Department of Mines and Geology (DMG), Department of Hydrology and Meteorology (DHM), Department of Survey (DOS), Department of Irrigation (DOI), Department of Health Services (DHS) - Division of Epidemiology and Disease Control, Department of Agriculture, Ministry of Industry Commerce & Supplies and Ministry of Information & Communications. The team explored for availability of data and technical know-how about the hazard and risk assessment.

3. Technical Working Group Meeting

The National Disaster Management Office (NDMO) is the focal agency for disaster management activities. Continuing with the efforts, NDMO would like to support activities for development of comprehensive hazard, vulnerability and risk assessment of the country and assess the economic impact on various vital infrastructures. NDMO has constituted technical working group paneling chief technical experts from Water Resources and Environment Administration (WREA), NDMO, NRA, National Geographic Department, Hydrology and Meteorology

Department, Ministry of Health(Institute of Hygiene and Epidemiology; Department of Hygiene; Center for Animal Health) , Ministry of Agriculture and Forestry, Department of Geology, Department of Education, Department of Statistic, PTI, ADPC and UNDP.

The role of technical Advisory group includes:

- Advise and provide guidance on methodology and process of DNRP for Lao PDR project.
- Facilitate flow of information required for the comprehensive study by the government agencies.
- Periodical review and monitor progress of the study project.
- Assist NDMO in risk assessment, disaster information collection, and management beyond the project period.
- Help in project implementation and follow up action in risk reduction in Lao.

4. Inception Report

In view of project proposal, discussion with project partners and nodal and focal agencies for various aspects of hazard and risk assessment, the inception report was prepared. The inception report comprises seven chapters including introduction and background of the project, project objectives and statement of work, proposed methodology, data needs, general approach for project implementation and work plan. It was submitted on 28th March 2010 to the UNDP and the NDMO for reference and necessary actions. This inception report was reviewed by the partners and nodal agencies

5. Data Collection Activities

The DNRP for Lao PDR project is carried out in close association with the Public Works and Transportation Institute (PTI), NDMO, Ministry of Home Affairs, Department of Hydrology and Meteorology, Department of Health Services, etc. Close linkages with other departments/government and non-government agencies have been ensured through ongoing partnership arrangements. Previous experience in working with those organizations is expected to facilitate secondary data collection, hazard specific information exchange and sharing of any other data relevant to the study. Secondary data from related agencies have been collected through many ways. Since it was awarded, the project team has been identified and carried out data collection activities. ADPC project team with PTI had several meetings related with data collection with several related agencies, including Department of Hydrology and Meteorology, National Geographic Department in

Vientienne. Several type of data were collected from different related agencies , such as : malaria case, type of disease, discharge and rainfall data from Department of Hydrology and Meteorology, UXO data from NRA, Agriculture data, land use/land cover data from National Geographic Department, Demography data etc. The data collection activities have been conducting in close collaboration with PTI and NDMO.

6. a Preliminary Outcome: Hazard Assessment and Mapping

The DNRP for Lao PDR project team of Urban Disaster Risk Management Team (UDRM) - ADPC have developed several hazard risk maps in Lao PDR at national level. The hazard modeling and mapping has been carried out for earthquake, floods, epidemics, UXO and Landslide have been developed. Several examples of these hazard maps such as epidemic, UXO , landslide and flood inundation are presented as follow :

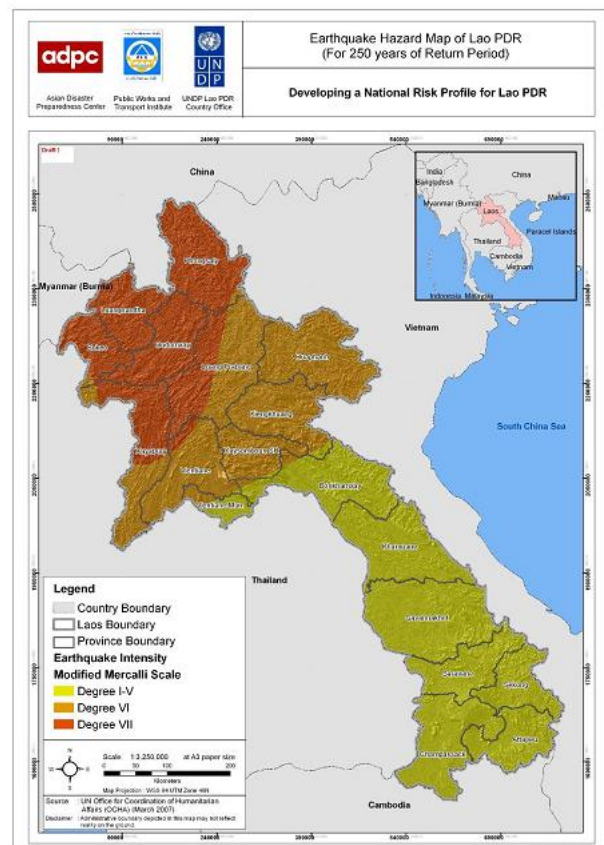


Figure 1: Earthquake Hazard Map of Lao PDR(Draft Version)

The earthquake hazard map shows ::

- Degree of earthquake intensity in Lao PDR.
- Area affected by the earthquake

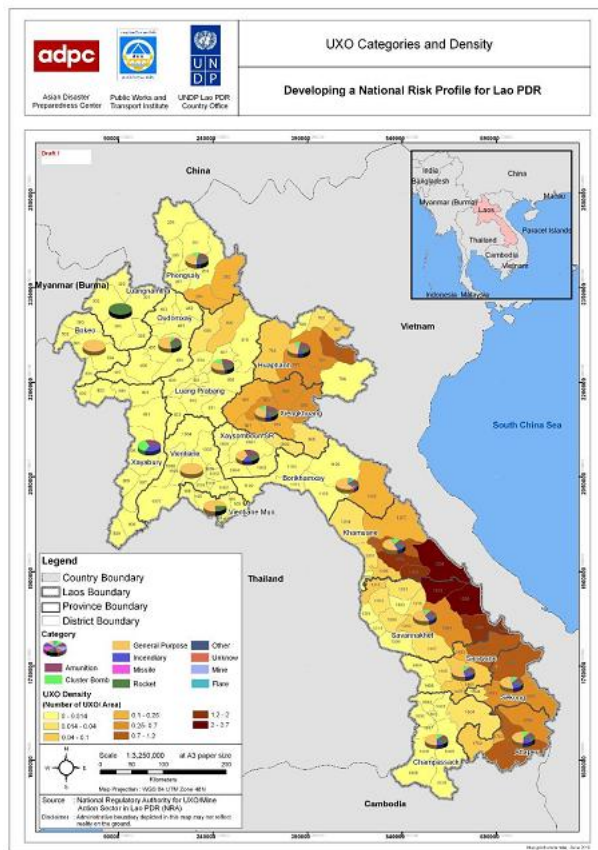


Figure 2: UXO Density Map of Lao PDR (Draft Version)

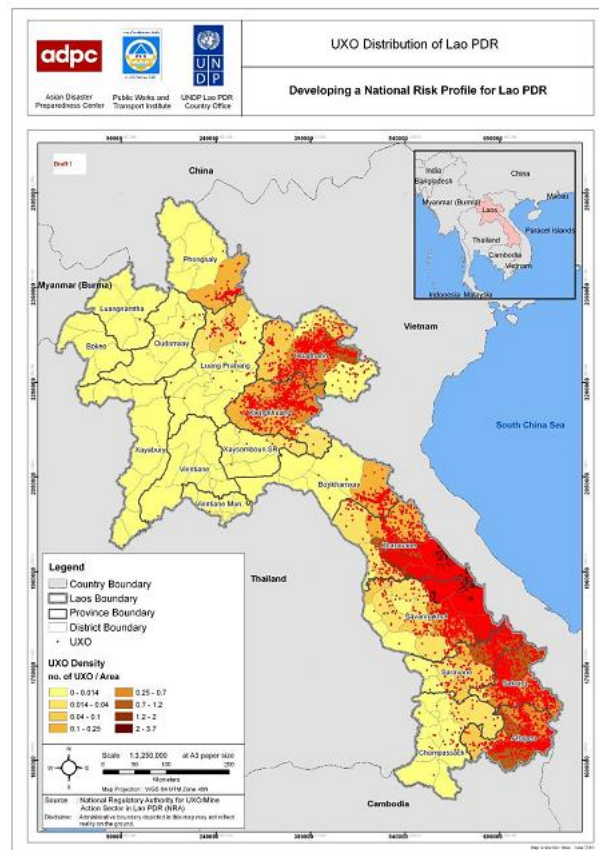


Figure 3: UXO Distribution Map of Lao PDR (Draft Version)

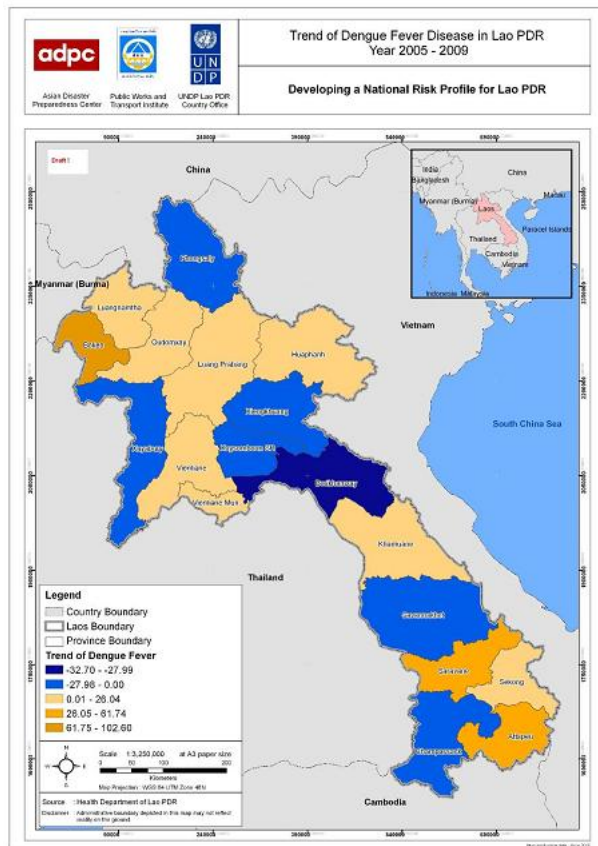


Figure 4: Trend of Dengue Fever Disease in Lao PDR (Draft Version)

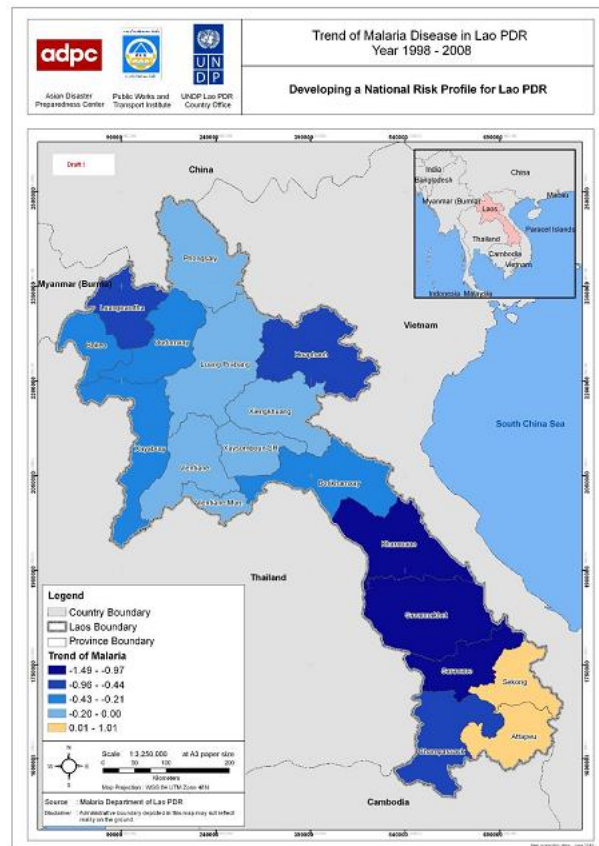


Figure 5: Trend of Malaria Disease in Lao PDR (Draft Version)

(50 years return period)

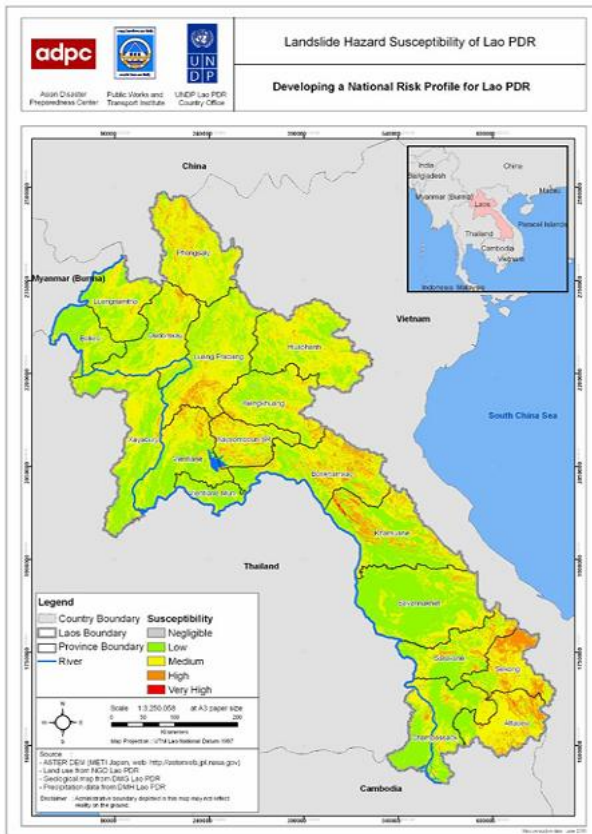


Figure 6: Landslide Hazard Susceptibility Map of Lao PDR (Draft Version)

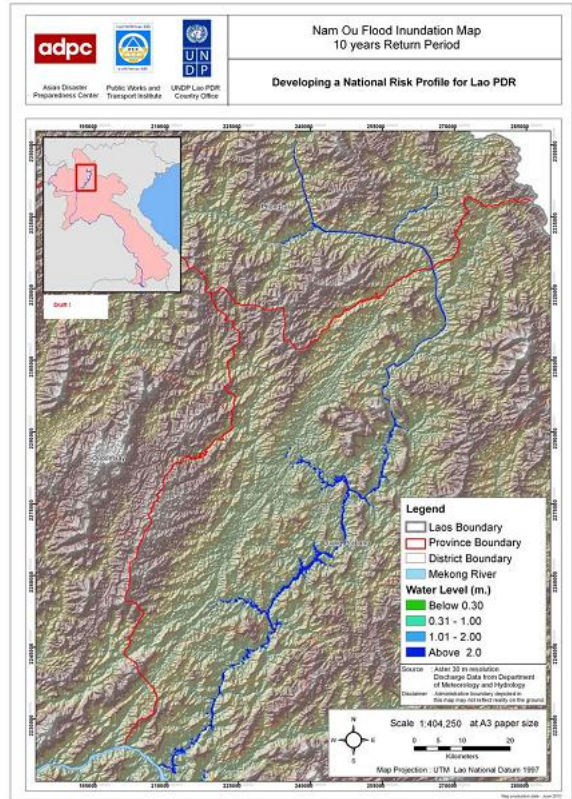


Figure 7: Nam Ou Flood Inundation Map of Lao PDR (10 years return period) (Draft Version)

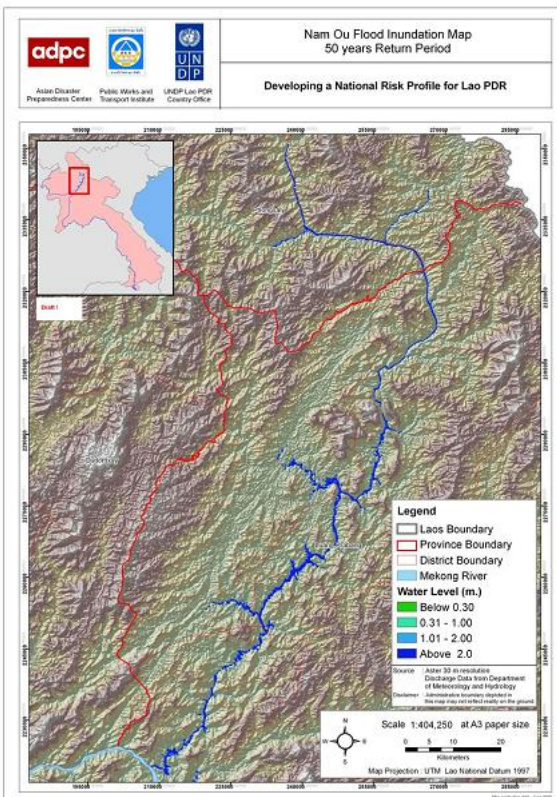


Figure 8: Nam Ou Flood Inundation Map of Lao PDR (50 years return period) (Draft Version)

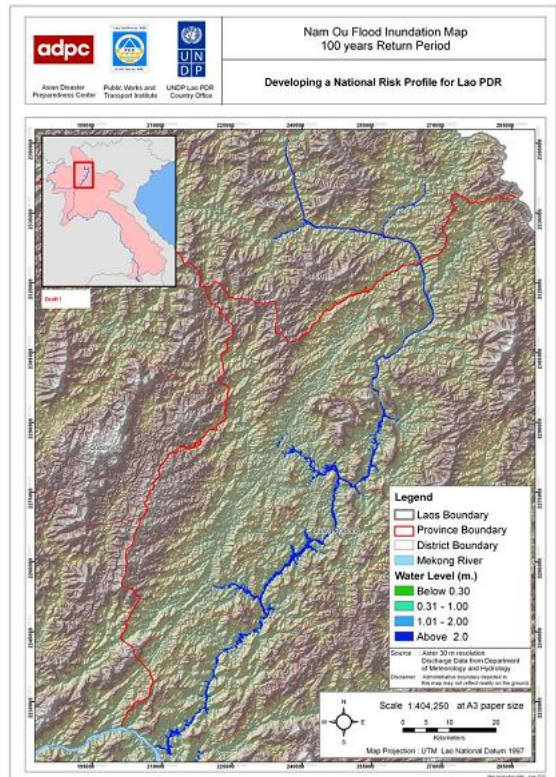


Figure 9: Nam Ou Flood Inundation Map of Lao PDR (100 years return period) (Draft Version)

6.b. Exposure and Vulnerability Assessment

The team is collecting data for various sectors and elements at risk for exposure and vulnerability assessment. For the same, housing, education, health, transport, industry, tourism, agriculture, mining and other important sectors will be considered. The exposure map preparation is in process.

7.0 Conclusion

- The project components are carried out following the time frame provided in the inception report. However due to delay in receiving the data from focal departments on time, there is a delay in floods hazard mapping of some river basins and Storm hazard mapping.
- The project team has prepared the hazard mapping for earthquake, floods of five important river basins, epidemics, UXOs and Landslides at national scale. Very soon, the team will hold a workshop in Vientiane and brief the process and outcome of hazard assessment.
- At present, the team is carrying out exposure and vulnerability assessment for stated hazards. The important sectors will be considered for exposure and vulnerability assessment.
- The next progress report will be submitted after in July 2010.



Asian Disaster Preparedness Center

*This report was prepared by team of DNRP for Lao Project
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