

Title: Roadmap towards Effective Flood Hazard Mapping in Cambodia

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I. Introduction:

The characteristic of topography of Cambodia besides Mekong River we have other rivers tributaries, Tonle Sap Great Lake and much other lake surrounded lowland area. The northeastern part is high land and mountain range located along Southwest West and North of the country. Cambodia is effected of Southwest Monsoon dominated from mid may to mid November, this Monsoon bring rain normally heavy rain occurring from August to September so in this period is inundation in year. In Cambodia almost every year is effected by flood, flooding from the rivers and from the localize rainfall. Many people who live along the river and plain area are faced to the problems such as : losing lives, some properties, animals and their Agricultural product, all of them have insufficient food and clean water for drinking for using everyday during occurring of flood. However they have serious problem, they still live in their house because they do not have shelter (have no Flood Hazard Maps).

II. The curriculum

The training was impressive, insightful and relevant to my job. It will improve my professional knowledge of the technical on the methodology to promote public awareness

by using Flood Hazard Maps to give information to save people life and mitigate flood damages. However, the training course is too short of a refresher course for trainees. But lectures make me understand about flood hazard disaster and know-how we can use Flood Hazard Map for people.

A flood in Cambodia is occurred almost every year, flood disaster become serious and affecting to economic development. The geographical characteristic of country caused a flood disaster. Many natural disasters cannot be avoided, but those disasters can be mitigated if we have effective contingency planning as flood forecasting, emergency response, financial availability, human and material resources in place, full network, good coordination by individually, government agencies and organizations with effective and rapid response. This is way Flood Hazard Map will it roles. Develop one Flood Hazard Map for a target area for some sub-basin where flash floods were severely affected. Our Flood Forecasting Office has established with local administration for implementing an activity and serve for public information and distribution of flood information. The area is available of some data and has been used for some project by initial study and considered that it will be important inputs which project is undertaking.

III. The role in making FHM.

The MOWRAM has the right to prohibit activities that are likely to damage flood protection works or to obstruct the natural flow of rivers. Therefore all emergency works In the event of floods and draughts, the MOWRAM is the Chief of Staff of the Royal Government of Cambodia in the execution of emergency works. So MOWRAM should hold the main responsibility for making FHM and disseminate for people for mitigate flood damages

IV-The Action Plan of making FHM

In Cambodia, flooding is not restricted to the Mekong, Bassac and Tonle Sap floodplains. Towns and rural areas outside the Mekong basin and in the Central Plain above the Mekong, Bassac and Tonle Sap floodplain also are subject to flash flooding, generated by heavy rain in the mountains that surround the Central Plain. For example, during the 2000 floods in Pursat and Kampong Speu Provinces suffered local flooding that was generated by high flows in tributary catchments, rather than the Mekong basin. The Secretariat of the National Committee for Disaster Management considers that Pursat, Siem Reap, Kampot, Koh Kong and Kampong Speu several districts along NH4 are particularly subject to flash flood. Total national losses in the 2000 flood were assessed as:

- 5,158 villages affected and 7,000 houses destroyed
- over 750,000 families (>3.4 million people) affected
- nearly 620,000 ha of rice affected and 374,000 ha destroyed
- nearly 1,000 schools and 160 health centers/hospitals affected
- over 920,000 received emergency relief

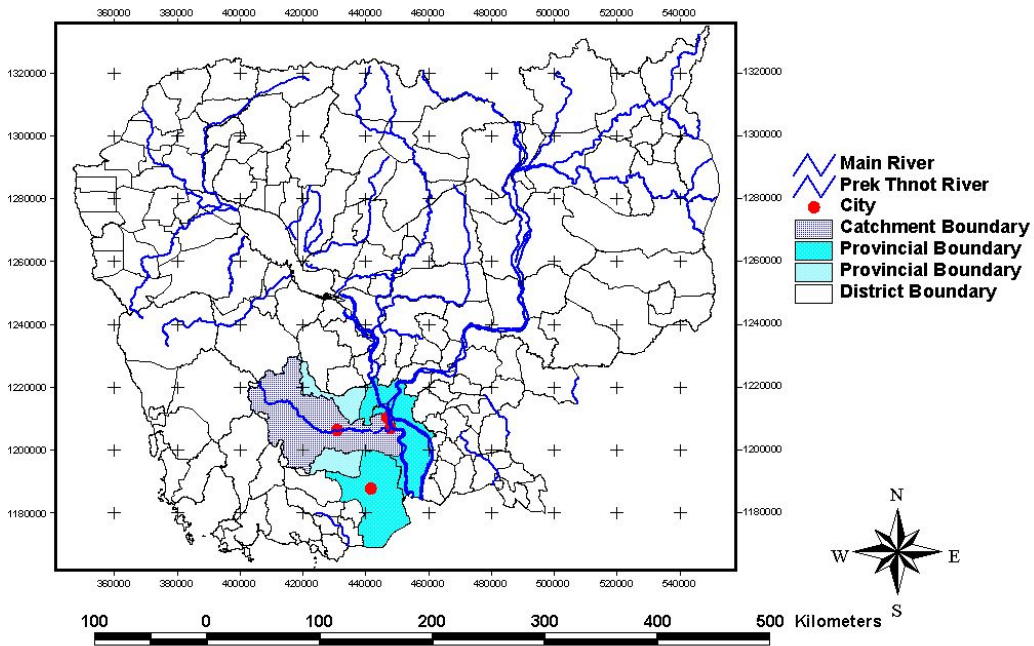
The Secretariat is unable to assess separately the impacts of Mekong River flooding and flash flooding, but considers that the latter in general is responsible for 10-20% of total losses therefore those areas under respond by provincial authorities levels but under the policy of the Ministry

The present background of study area is major to finding on present conditions to review of the plan of Prek Thnot Multipurpose Project. This area is development concept on the agricultural development in the Prek Thnot River basin was identified in the multi-purpose dam development plan in 1960's aiming at three functions of hydropower, irrigation and flood control. The constructed a dam is started 1960 with assistance of Japan and other donor's. After completed a Regulator Gate at Rolang Chrey and left bank canal, the construction has been suspended due to chaos of civil war. After the civil war reappraisal of the multipurpose project was carried out by the National Mekong Committee and environmental study on the propose reservoir area was conducted during 1993 to 1994. Therefore the Prek Thnot River basin the Royal Government of Cambodia has been take to account for priorities basin to developing to improvements of livelihoods of the rural areas over three Provincial and 10 district as the table, but for this areas a policies for flood management damage mitigation and emergency response measures as flood early warning system not yet improvement.

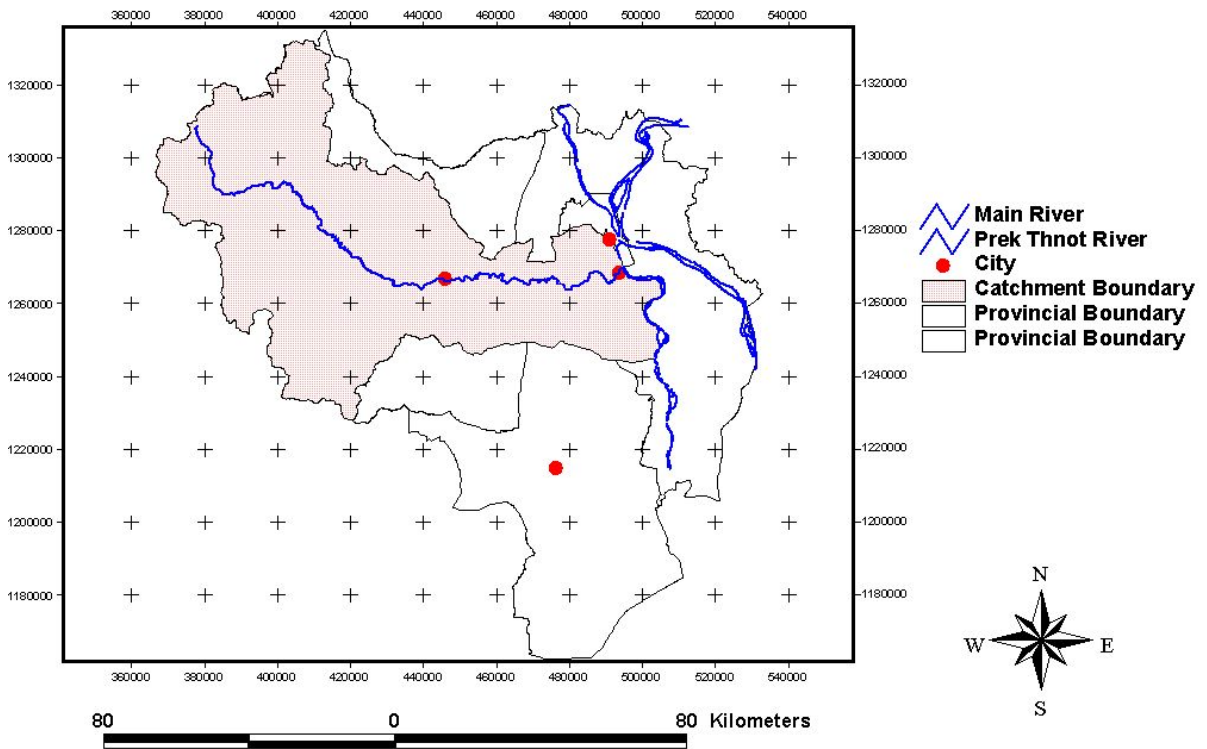
The target area for making FHM is Prek Thnot River basin in (Kompong Speu, Kandal and Takeo Provinces). It is located the western of Phnom Penh as show in the map the area summarized in the following table

Province	Kampong Speu	Kandal	Takeo	Total
District	Aoral, Chbar Mon, Kong Pesi, Phnom Chrouch, and Samrong Tong	Kandal Steung and Ang Snoul	Bati	8
Number of Commune	43	32	4	79
Population	329,309	145,525	30,942	505,776
Household	63,576	29,419	6,152	99,147
Rice field	55,143	19,048	7,130	81,321

Map of Cambodia



Map of Study Area at Kompong Speu Kandal, Phnom Penh and Takeo Province



These actions will be set up a short and long-term Project Within one year

To developing one Flood Hazard Map for the target areas of small Sub-basin that become flashes floods it was severely hit by a flood event happened, Our Flood Forecasting Office has established with local administration for the implementation of activities as public information to distribution of flood information the area is availability of some data has been the subject of some project studies these initial studies will be important inputs to be undertaking.

Short Term Studies

Study on the feasibility on data collection with existing as topography, hydrological and rainfall data in the river basins.

Mid/Long-term Project

Improve of the quality of flood forecasting which our office is forecast and establish Flood Hazard Map information, finally gives a hydrological forecast on what would be the effect of such within the next day by cooperating some line agency, I really know that it would be better reception and comprehension by the residents as well as people involved operations.

V. Advice/Suggestions for Effective Flood Management in Japan

Now Japan has produced a very good methodology of flood management and flood hazard maps. Some might have too complicated for conducting. Many things had been identified on the discussion on Town-Watching activity. I would say those are very relevant. Provision of singe board for flood evacuation routes should be written at least two languages Japanese as well as English.

VI. Advice / Suggestions for Training Course

Training course is not enough too short it should be longer is important to do more exercises and practices to present something from their own sides: specifically their country's condition on flooding and its mitigation. This way everybody get benefited can learns from each other there is sharing of knowledge.

VII. Conclusion

Through the training course I can get much more knowledge about how to make flood hazard map and understanding how important of it and I will develop it and distribute to the residents and local authorities and explain to the people how to use FHM in order to mitigate flood disaster and saving their life.