Bringing Collaborative Governance in Community Early Warning System for Flood Risk Reduction

Case Study

23 March 2015

Communities and business across Thailand did not expect the magnitude of the flood events in 2011, which brought catastrophic damage and loss to the country. One of the most pressing issues during this crisis, was the inability of communities, namely the most vulnerable groups to receive early warning information; which was scattered and disintegrated from various agencies. Moreover, people could not understand valuable information that if implemented properly could have reduced their risk to the devastating floods. Lack of proper information and communication is considered as the crucial vulnerability factor in Thailand when a community lacks the capacity to respond to warning information.

Reduction to floods vulnerability in Thailand requires identification of flood risk information, stakeholder engagement and technical organization to collaborate to build knowledge for communities in flood prone areas. The Program for Reduction of Vulnerability to Floods in Thailand implemented a knowledge and information system that brought flood awareness to local administration and communities. Technical information relating to flood risk, gathered by government agencies such as Royal Irrigation Department (RID), Department of Water Resource (DWR), Thai Meteorological Department (TMD), and Department of Disaster Prevention and Mitigation (DDPM)—were identified and facilitated through a series of activities which aimed to communicate and translate to support local end-to-end Early Warning System (EWS). Collaborative networks were strengthened by bringing technical information closer to communities in order to build their resilience towards floods in the future.

"This project narrowed the gap between technical organizations and communities. As the result, it brought technical officers to communicate with villagers directly," Mr. Satit Sueprasertsuk said, Acting Director of Water Crisis Prevention Center, DWR.

Official and Community engagement in End-to-End Community Early Warning Trainings in Tha Ruer Ayutthaya

Bringing Collaborative Networks into Community Early Warning Systems

The Program for Reduction of Vulnerability to Floods in Thailand involved key technical stakeholders and government agencies in implementation. The flood risk technical agencies including DDPM, RID, TMD, Office of The National Water and Flood Management Policy (ONWFPC), Hydro and Agro Informatics Institute (HAII), and National Disaster Warning Center (NDWC) were involved in 3 key components of the project. The activities involved capacity building and training for training of trainers (Component 1). The project brought these technical arms into pilot communities as resource persons in Demonstrations Sites (Component 2). Additionally, resource persons provided flood risk information and communication by taking part in a Flood Forum (Component 3), and in local level, they contributed to an early warning network by connecting officials with community leaders.

"On February 28th 2015, I received a call from a villager asking about strong wind and weather conditions of this week," said Mr. Wirachat Buacham, Director of Meteorological Station in Ayutthaya.

The communication had been continued after success of Mr. Warning trainings, a capacity building training for resource persons (Mr. Warning) who was responsible for providing early warning messages relating to extreme

Official and Community engagement in End-to-End Community Early Warning Trainings in Tha Ruer Ayutthaya

weather events and flooding throughout community. The locals and officials had set up a Line group which is a mobile application group chat application, to provide updates relating to flood early warning and weather forecast. This strengthened the connection between regional, provincial, local government officials and villagers to exchange information in a much faster way than before.

In the past, local communities only received early warning information from Subdistrict Administrative Organization (SAO). With network of information by collaborative community and local government official, villagers exchange and receive information directly from officials that involved in flood risk management and weather forecast.

“Technologies allow borderless and unlimited ways of communication, through this communication spread faster and wider and our networks are instantly updated,” Mr.Suchat Buacham said, Director of Ayutthaya Meteorological Station.

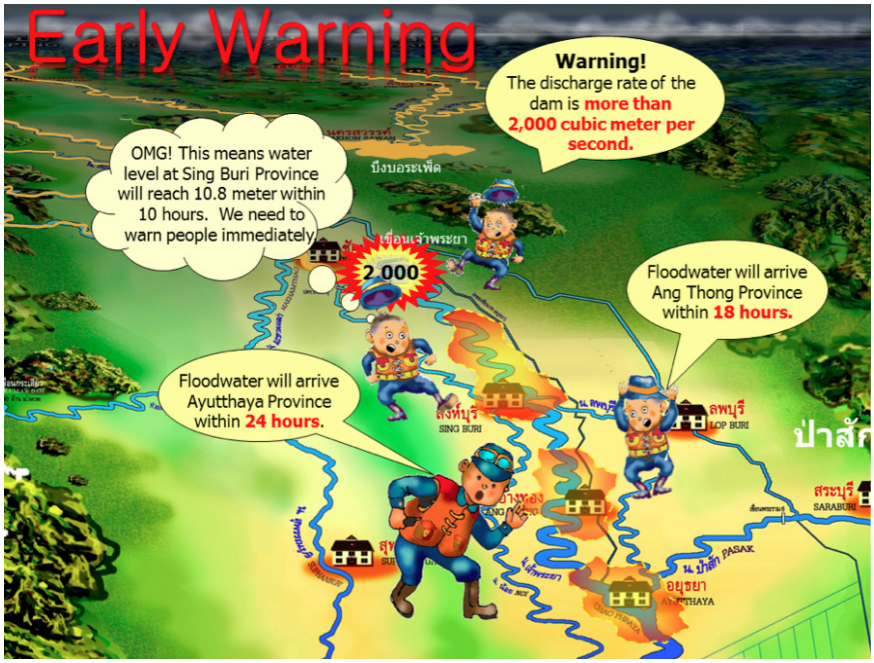

Illustration slide on Early Warning information from Thanaroj’s presentation on Water Monitoring Royal Irrigation Department (18/3/15)

Bringing collaborative governance throughout communities in Central Thailand built the relations between technical agencies and local communities.

“Villagers have better understanding on weather and flood risk information, if not, they will ask us” Mr. Wirachat said. This allows information to spread to local communities which will increase awareness in flood preparation among villagers.

On 18th March 2015, the Early Warning SOP Development Workshop in Phong-Pheng Sub District, Pa Mok District, Ang Thong Province, Mr.Thanaroj Worarutprasert, a Regional Royal Irrigation officer, reviewed the knowledge and information for Flood Early Warning SOP. Information included the duration of time the water stream from the north flows into Ang Thong Province. The presentation illustrated the water management system of Chao Praya river basin for as a plan for the Early Warning Standard Operating Procedures.

Project outcomes in Collaborative Governance in Community Early Warning System

The outcomes from Collaborative Governance in flood early information were awareness and understanding of community in flood risk, increasing local capacity in end-to-end early warning systems, and strengthening relations between inter official agencies and communities.

“Collaborative networks are important to support community in disseminate information and draw emergency support especially for vulnerable groups,” Mr. Prawit Phuengwongyat said, Phong-Pheng Sub District community senior community leader and one of Phong Pheng Mr. Warning, Pa Mok District, Ang Thong Province.

Output from key technical agencies in collaborative governance drawn from Mr. Satit’s project experience are as follows:

Department of Disaster Prevention and Mitigation – Institutional building in flood risk management and end-to-end early warning, and strengthen their role in the local community and exchange information with other technical agencies regarding flood risk information.

Royal Irrigation Department – the organization translated technical information to communities throughout the project area. The information such as the duration of time that water arrives to the community is comprehensively communicated to villagers.

Thai Meteorological Department – Build an understanding on weather information at the community level in order to interpret flood risk warning and strengthen relations with local communities acting providing monitoring and disseminating information.

Department of Water Resource – The organization formulated strategy to engage more with communities and promoted community participation in flood risk management across provinces.

Bringing these governmental technical agencies closer to communities and working together on the ground to help villagers for flood preparation was crucial outcome of the Program for Reduction of Vulnerability to Floods in Thailand. Mrs. Kulfalee Thaparuk, Chief Executive of SAO Phong Pheng Sub District, Pa Mok District, Ang Thong Province, said; "Villagers benefit a lot when different governmental technical agencies involve, and collective actions are always needed during flood emergency"

Flood Community Early Warning System need an Information Network

Important key elements involved with end-to-end early warning is the communication and dissemination of alerts and warnings to people where a collaborative network of information is significant.

Ayutthaya Province DDPM Officer, Ms. Prapapon Intraprangha, stated several significant contributions of network governance on community early warning system. First, collaboration helps effective information dissemination. Secondly, local authorities and communities are significant for flood preparation and early warning in the area due to the fact that community leader, Mr. Warning, local government officer and SAO are familiar with their surroundings. Thirdly, exchanging information with local networks contributes to risk estimation and identifies potential damage. Lastly, flood disaster occurred cross provincial jurisdiction boundary. It is necessary for Provincial DDPM Officer to build connections with neighbor provinces to communicate across before disaster strike.

"Flood disaster occurred cross provincial jurisdiction boundary. It is crucial for collaborative network to communicate the flood risk across provinces and regions. When we already know each other, we can communicate in crisis more effectively"
Ms. Prapapon said, Ayutthaya DDPM officer

Flood Risk Early Warning Information Network strengthens Collaborations in Communities for Long Term Resilience

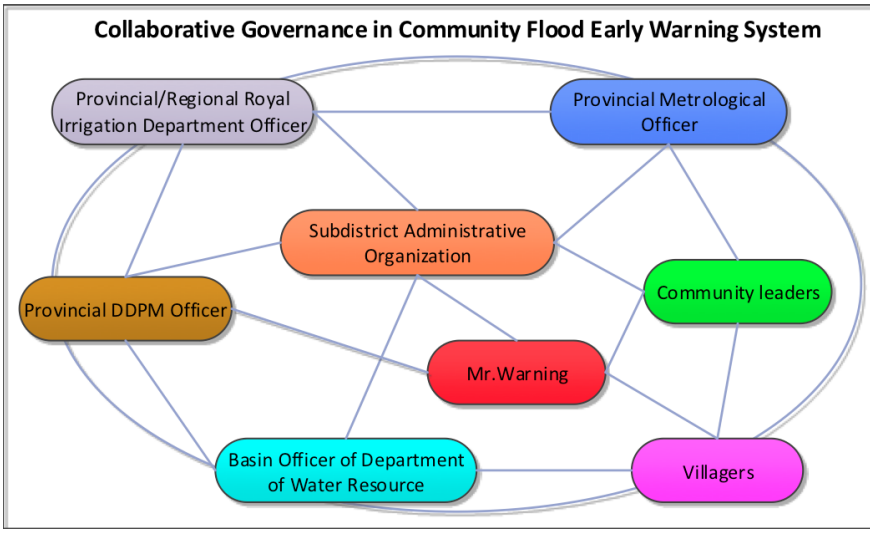

Diagram 1 shows information network of community in flood early warning system

Collaborations in flood risk early warning information develop good relation between government technical officers, local administration and villagers in community.

"When community understands the flood risk early warning, they also understand us," Mr. Ratana Punsawad, Chief Executive of Ban Pho SAO, Bang Pa-in District, Ayutthaya Province

APDC conducted training for Mr. Warning and Community Based Flood Risk Assessment that built villagers' knowledge to understand their flood risk, and involved them in drawing flood risk map. Communities then started to understand the assistance of SAO in early warning and aid distributions in the area. The locals possessed knowledge that supported the work of SAO, and were willing to cooperate with the agency in flood risk reduction.

"Collaborations in Early Warning System which engaged villagers in a community can overcome conflict in the area as they sees important of flood preparedness and willingness of SAO to support the everyone in community for flood resilience," Mrs. Kulfalee Thaparuk, Chief Executive of Phong Pheng SAO, Pa Mok District, Ang Thong Province

Capacity building and trainings were conducted in SAO buildings and involved community leaders and villagers. This encouraged active citizen in the area in building good relation with closely connected with local administrative organization. This good relation in community would sustain flood resilience of the community in the long run. ■

Program for Reduction of Vulnerability to Floods in Thailand

Project Information:

The Asian Disaster Preparedness Center (ADPC) – supported by the U.S. Agency for International Development (USAID) initiated the Program for Reduction of Vulnerability to Floods in Thailand to enhance flood risk mitigation and management. The goal of the program is to promote sustainable development whilst enhancing Thailand's resilience to floods and other associated natural hazards. It achieves this goal by strengthening the capacity for disaster risk management in Thailand and providing support for flood vulnerability reduction. The program works in partnership with Thailand's Department of Disaster Prevention and Mitigation (DDPM) and other stakeholders and target provinces in the central and lower Chao Phraya River Basin, from Sukhothai to Samut Sakorn.

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