Framework for Health Sector Disaster Management
(Rev. 2.0)
Disaster Risk Management – What needs to be done

Disaster preparedness and response is a concept that is well-understood in Thailand, a country that experiences annual natural hazards such as floods, landslides and fires that take the lives of many and affect the lives of many more. The country has shown resilience and capacity in responding to the crises; however, the recent increases in number of natural disasters due to climate change has highlighted the need to have faster and more effective response to deal with the impact of disaster events. This trend is evident in the natural disaster statistics. Between 1980 and 2000, natural disasters have claimed the lives of more than 3 million people worldwide and adversely affected the lives of 800 million people. The economic impact is even greater at an average of around 23 billion US dollars worth of property damage created annually. In the year 2008 alone 354 natural disasters were reported in which 235,000 persons were killed. Of these more than 138,000 deaths occurred in Myanmar following the impact of Cyclone Nargis in the country. More than 214 million people were affected by natural hazards, which are 18 times the population of Ecuador, and around 190 billion US dollars worth of economic damage occurred. In the decade from 2000 - 2009, the total number of people killed in natural disasters from the 11 member countries of the South-East Asia Region comprised 62% of the total deaths globally. In Thailand, the flooding in 2012 claimed the lives of more than 800 persons and affected over 80% of the country. The economic damage was extremely high due to the prolonged duration of the disaster as well as the magnitude.

A disaster is defined as “any actual threat to public safety/and or public health where local government services are unable to meet the immediate needs of the community”. By this definition, a disaster requires the need to scale up additional capacity to deal with the impact of disasters, which would require extensive coordination and preparation prior to the event for fast and effective delivery.

---

1. Annual Disaster Statistical Review, CRED, 2009
Health is an essential aspect of disaster management since the effects of disasters will show predominantly through the degrading health conditions of the affected population. More concretely health effects of disasters include the following:

- Increased number of deaths and injuries
- Population displacement, including missing persons
- New cases of disease and disability
- Increased number of cases of psychological and social behavioural disorders
- Possible food shortages and nutritional deficiencies
- Contamination or injury of health and relief personnel
- Damage to healthcare facilities and other health infrastructures
- Disruption of routine health services
- Diversion of development resources to emergency relief
- Setbacks to national development and health development

So what needs to be done? In order to answer this question, it is necessary to revisit the basic cycle of disaster management. The following is the Disaster Management Cycle as defined by the United Nations.

The cycle shows that although the disaster event itself may not be prevented, much can be done to reduce its impact on the population through emergency preparedness and disaster risk reduction measures. The cycle also highlights the intertwined nature of disaster response, development and preparedness actions. In other words, to manage disasters all areas of the cycle needs to be targeted and properly addressed. The national framework for disaster risk management in Thailand, the main topic of this document, will look primarily at the emergency preparedness and disaster risk reduction part of the cycle, keeping in mind the fact that this is not a standalone project but must be integrated into ongoing work in other areas of the cycle. The framework will be called the Disaster Risk Management framework to highlight this aspect of the disaster management cycle.
Risk can be defined as hazards multiplied by vulnerabilities, divided by capacities.

\[
\text{RISK} = \frac{\text{HAZARDS} \times \text{VULNERABILITIES}}{\text{CAPACITIES}}
\]

In order to reduce and manage the risk, all three aspects must be addressed by reducing hazards, reducing vulnerabilities, and reducing the consequences by strengthening the capacities of national and community health emergency management system. In this document the modalities for reducing the vulnerabilities and increasing capacities will be discussed and addressed.

II Disaster Risk Management in Thailand

Thailand is prone to natural and human induced disasters including flood, drought, tsunami, and earthquake. It has also protracted issues concerning border conflicts and subsequent migrants. Recent events, including the flooding in the south in 2010 which claimed the lives of more than 200 people, show that despite the high level of health services available in the country still much needs to be done to prevent mortality and reduce morbidity before, during and after disaster events.

In Thailand, disaster prevention and mitigation actions are being conducted by the government sector, private sector, military, charities, the private sector and volunteers. The National Disaster Prevention and Mitigation Plan 2010 – 2014 acts as the backbone to these activities. The Department of Disaster Prevention and Mitigation under the Ministry of Interior is the focal point for coordinating and integrating the plans and projects related to disaster preparedness and mitigation. The mitigation and assistance guideline and procedure were specified for integration and cooperation among organizations concerned. Under the National Preparedness Plan, the different Ministries and sectors have specific strategic and action plans on disaster risk management.

In 2010, the national health sector of Thailand, together with WHO have identified disaster risk management as one of five main areas of focus. Since the inception much has been done including the identification of an action plan for 2011 with concrete outputs envisioned in the areas of training, information and knowledge management as well as developing standard operating procedures for the health sector in disaster response. However, there are still some gaps in terms of uniformity, coordination and inter-operability.

In order to address this issue, it was suggested to develop a health sector framework for disaster risk management to bring together all ongoing and planned activities under one umbrella. A conceptual framework is a schematic representation or map that illustrates the links between all of the elements being considered in defining a concept. The national framework will identify the common long term goal for disaster risk management in Thailand and a consolidated action plan to achieve the goal. This will allow for coordinated action by all actors working in this area.

The framework will not replace any documents and it aims not to duplicate any existing frameworks or policies already in place. The framework is in alignment with the national policy and legal mandates for overall disaster risk management in Thailand including the Strategic National Action Plan (SNAP), Emergency Medical Act and the Ministry of Public Health national policy for disaster response.
III Health Sector Disaster Risk Management Framework in Thailand

The following framework sets out the common goal of the program, strategies and the subsequent key areas of intervention.

1. Goal
   Overall goal: Ensuring reduced mortality and morbidity due to disasters in Thailand
   Specific goal: Strengthening the health sector’s disaster risk reduction and management system

2. Strategic Direction
   The goal will be achieved through 3 main strategic directions. They are:

   1) Mainstream disaster risk reduction into health sector planning and development. This aims to ensure that disaster risk management activities will not be parallel or individual activities, but should be inline in all health systems strengthening related activities as an integral component.
2) Strengthen the disaster management system in the health sector of Thailand through emergency preparedness activities. This strategy addresses action points to strengthen the response capacity in country, which may include surge capacities and additional systems that can be mobilized to support and strengthen the existing health system in the affected area.

3) Foster collaboration with other countries to support the health sector disaster response in Thailand.

3. Objectives

1) Ensure that the health sector is able to expand its capacity in disaster situations to respond to additional health needs
2) Reinforce the health sector disaster management system that is supported by relevant policy and legal framework
3) Empower the community to be able to mitigate their exposure to risk and increase ability to respond and recover from disaster situations
4) Strengthen the information management system for disasters to support evidence based planning and response
5) Ensure the disaster operations are supported by adequate logistics and operations capacity

4. Key Areas of Intervention

This section identifies the main areas of work that will need to be done to achieve the goal. They can be conducted via the three strategic directions identified.

The main areas of work are setting the coordination and management structures in the health system of the country. Under the guidance, five areas of work have been identified.

1) Strategy, Policy and Legal framework
2) Health system that consist of health facilities, health workforce and health service delivery
3) Information and Knowledge management
4) Operation and logistics management system
5) Community readiness

5. Expected Outcome

1) The health sector will be able to expand its capacity in disaster situations to response to additional health needs.
2) The health sector disaster management system can be supported by relevant policy and legal framework.
3) The community will be able to mitigate their exposure to risk, response and recover from disaster situations.
4) The information management system for disasters will support evidence based planning and response.
5) The disaster operations will be supported by adequate logistics and operations capacity.

6. Product

1) Strategy, policy and legal framework
   1.1 Standard operating procedure for the health sector response
1.2 Recommendations for health sector policy development on disaster risk management and response
1.3 Coordination and command structure in the health sector of Thailand
1.4 Recommendations for legalization of the health sector disaster risk management and response
1.5 Recommendations for in-coming health workforce from other countries to support the Thai response mechanism

2) Health system
   2.1 Standards and tools for safe hospital and health facilities in water related disaster
   2.2 Health service plan for triage, evacuation and referral of patient in disaster situation
   2.3 Plan for delivery of health services to vulnerable populations
   2.4 Training package on ICS for middle and high executive level, mobile medical teams, etc.

3) Information and knowledge management
   3.1 Relevant information on resources available and make accessible
   3.2 Mechanism for collecting, using and disseminating information and knowledge in disaster through needs assessments and health assessments
   3.3 Contingency plan for alternate communication system in disaster situations

4) Operation and logistics
   4.1 Holistic Medical Emergency Operation Center (HMEOC) mechanism established
   4.2 Recommendation for developing mechanism for export/import of essential medical items in disasters
   4.3 Medical and health operation stockpile maintained in collaboration with GPO

5) Community readiness
   5.1 Toolkit, games, animation, etc. for community awareness raising
   5.2 Mapping of community readiness projects in Thailand
   5.3 Tools and guideline for linking focal person community to primary health care service in disaster

7. Indicators
   Program level:
   1) Integrated and comprehensive health sector disaster risk management strategy in place
   2) National health sector disaster risk management plan is tested, reviewed and updated regularly – at least once every two years
   3) In case there is a disaster, national health sector disaster management plan is reviewed and updated based on lessons learned

   Outcome indicators:
   1) Strategy, policy and legal framework
      1.1 Number of functional SOPs developed, tested and regularly reviewed and updated
      1.2 ICS structure customized for the health sector of Thailand, and regularly tested and updated
1.3 Recommendation for health sector policy and regulation on disaster risk management and response developed and shared with executive level
1.4 Recommendations for managing in-coming health workforce from other countries made to regional networks

2) Health system
   2.1 Percentage of hospitals and health facilities that are vulnerable to water related disasters in which the standards and tools for safe hospitals and health facilities in water related disasters are applied
   2.2 Percentage of hospitals with a complete triage, evacuation and referral plan
   2.3 Percentage of provincial and regional hospitals that are part of the comprehensive hospital networking plan
   2.4 Number of province with a disaster plan for delivery of health service to vulnerable population at least one specific disaster risk
   2.5 Number of training courses for high and middle level executives that integrate the training package on ICS and other topics

3) Information and knowledge management
   3.1 Number of times relevant health information is updated per year
   3.2 Number of provinces in which health assessment tools are integrated into the overall information management system
   3.3 Alternate communication systems tested weekly and maintained

4) Operation and logistics
   4.1 Number of Holistic Medical Emergency Operation Center (HMEOC) fully established in the country
   4.2 Recommendations for mechanism of export/import of essential medical items in disasters made to relevant regional networks
   4.3 Number of medical and health operations stockpiles in the country

5) Community readiness
   5.1 Number of target groups that have received the community awareness raising material (health volunteers, school children, etc.)
   5.2 Map of community readiness project in Thailand developed and updated annually
8. Management Structure

- Steering Committee
- Sub-Committee
- Core Group
- Program Managers (NIEM)

9. Assumptions
Political stability
No major disasters that will disrupt the work
Adequate financial and/or in-kind support
Full buy in and active participation from implementing partners

Annex
1. Monitoring Framework
2. Stakeholder List