

Logistic system in Disaster Medicine



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National Institute for Emergency Medicine

- was established under the Emergency Medical Act 2008 (EMS Act B.E. 2551)
- responsible for the administrative management and coordination of relevant agencies from both the public and private sectors
- promote engagement of local governments in the management of EMS

Vision

“Adopt the international standard emergency medical system and provide universal access to emergency medical treatment for everyone in Thailand”



National Institute for Emergency Medicine

Mission

- ❑ To develop and standardize the emergency medical system in Thailand, which can be made accessible to everyone.
- ❑ To promote and strengthen the emergency medical system of Thailand through efficient administration.
- ❑ To develop the emergency medical system of Thailand for disaster preparedness.
- ❑ To strengthen a financial system that can provide sustainable and effective support to the emergency medical system of Thailand.
- ❑ To collaborate on issue related to the emergency medical system with the ASEAN community and other international actors.

Logistic System in Disaster Medicine

- ❑ To deploy Medical Assistant Teams to the affected areas
- ❑ To bring essential resources and supplies as quickly as possible (foods, medical equipment, medical supply, etc.)
- ❑ To transfer/evacuate patients from critical areas to definitive cares
- ❑ To refer patients between hospitals (Inter-hospital patient transfer)



Obstacles to effective logistic system in disaster medicine

- ❑ Planning/Itinerary
- ❑ Survey, assessment, and mapping of the affected areas
- ❑ Limitation of GPS
- ❑ The removal of the barriers or debris along the routes
- ❑ Arranging appropriate and enough transports to meet the need

Thailand Mega Flood 2011



Hospital evacuation by ground EMS and HEMS (Thai “doctor-heli”), coordinated by EMIT



Most useful transportation:

Army Truck
Naval Vessel
Helicopter





Army truck was modified to transport patients.

C130

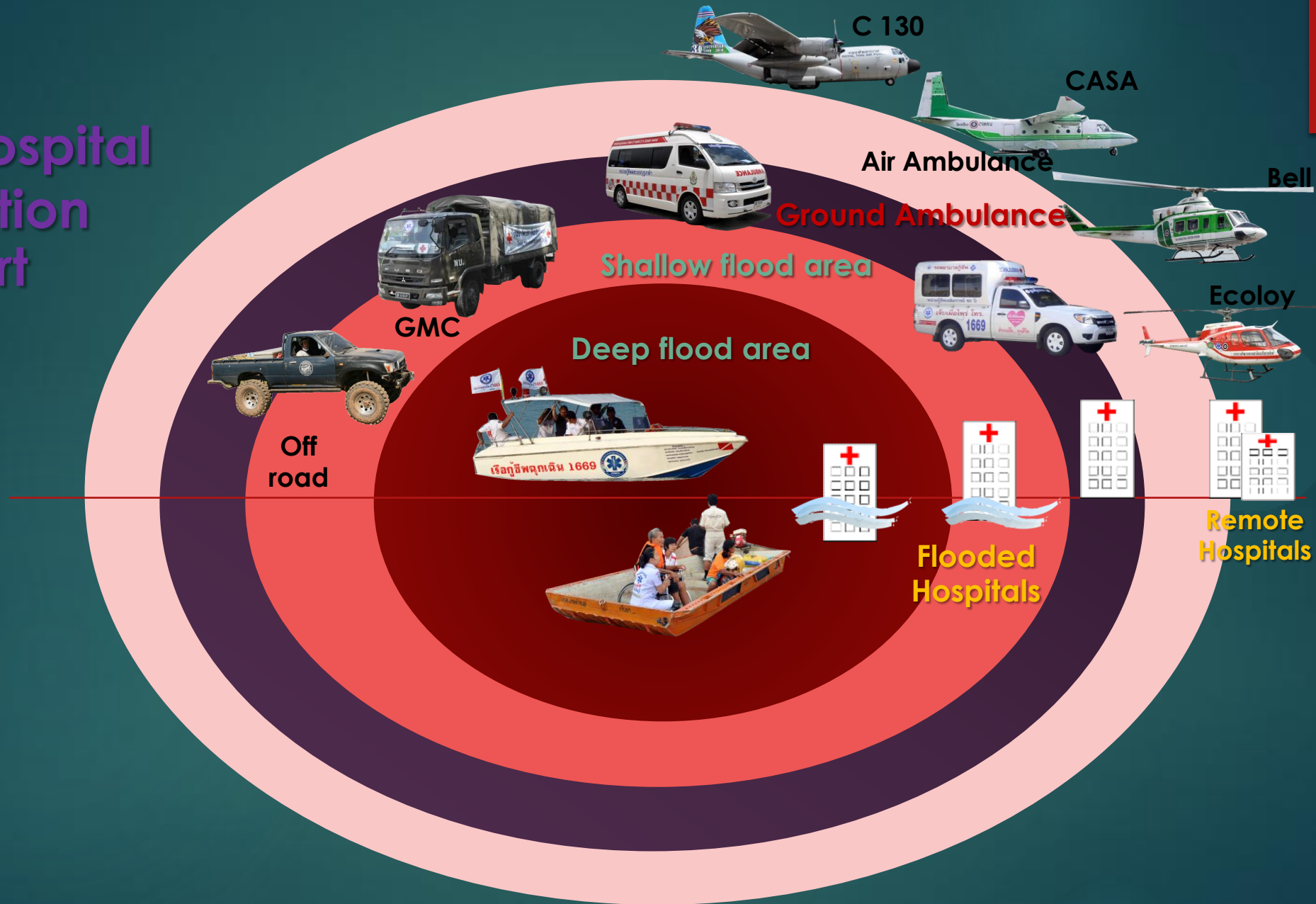






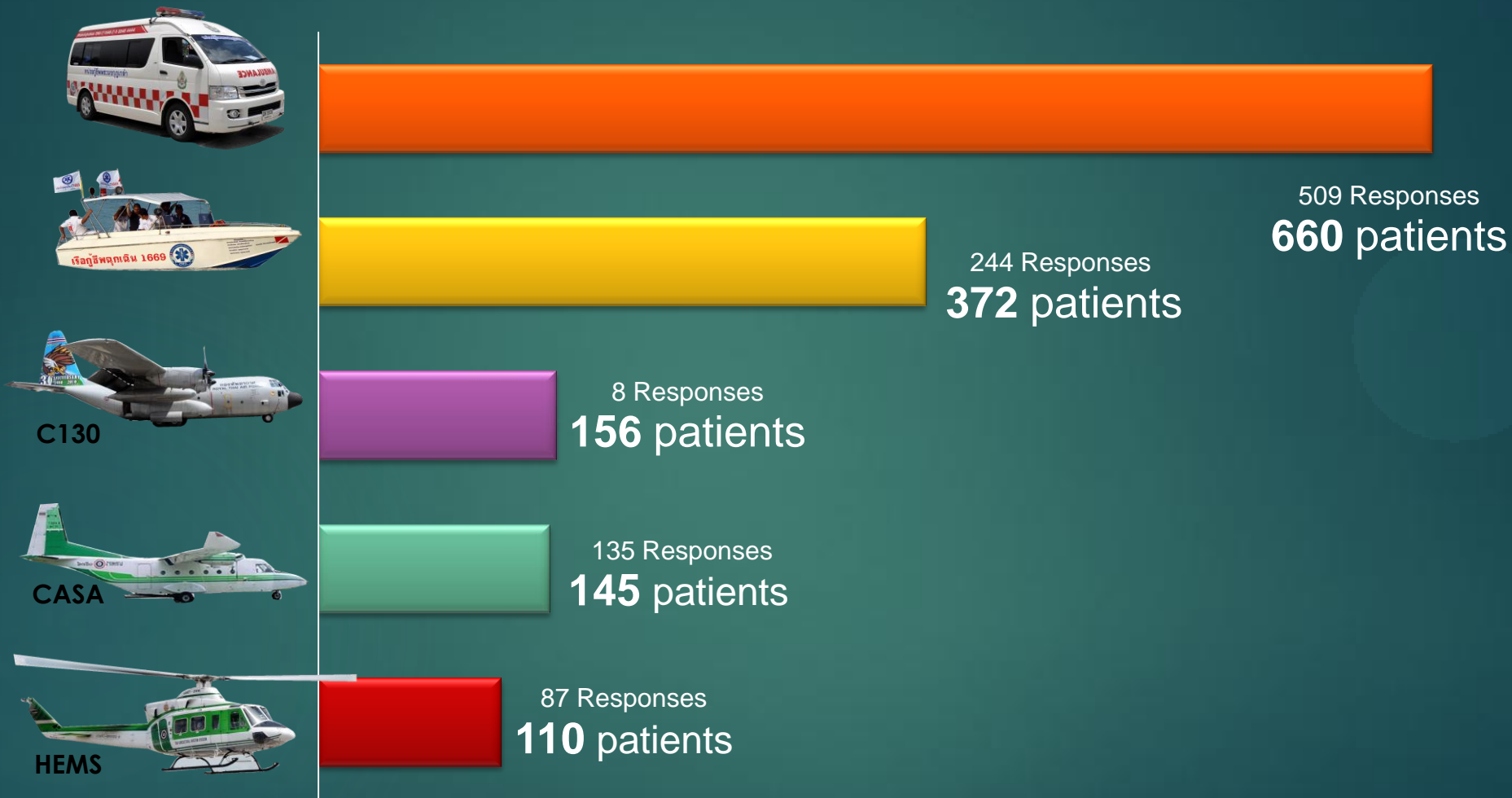


Mass Hospital Evacuation transport



Mass Medical Evacuation Summary: Donmuang 84 Emergency Medical Command Center October 9 – November 30, 2011

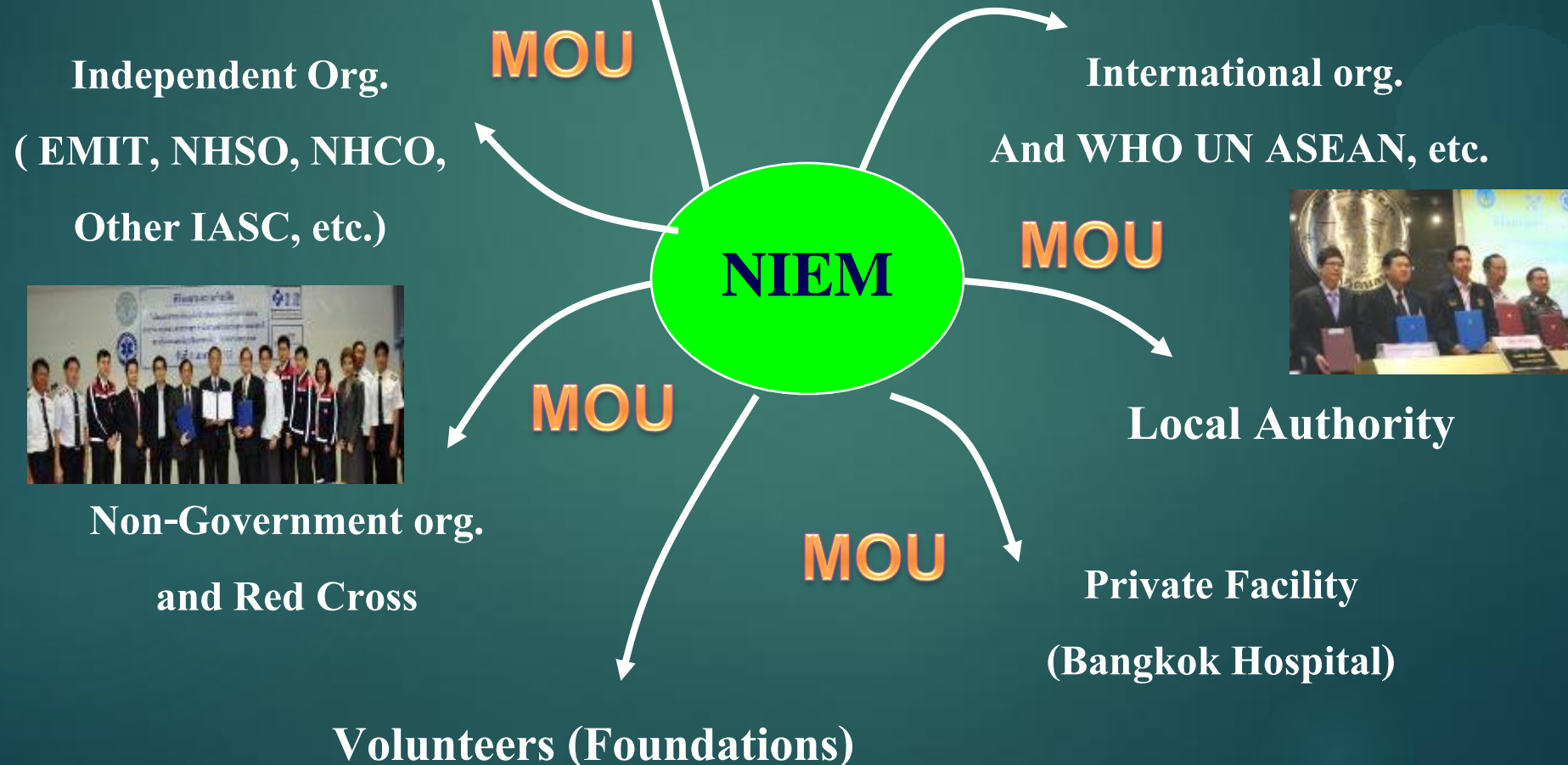
Evacuation Vehicle



Total 883 responses and 1,443 patients

Co-Ordination (Network)

Department of Disaster Prevention and Mitigation, MoPH/Ministry of Education/Royal Thai Police/ Ministry of Defence, Emergency Medical Agency (Ministry, University, Civil and Military Force)















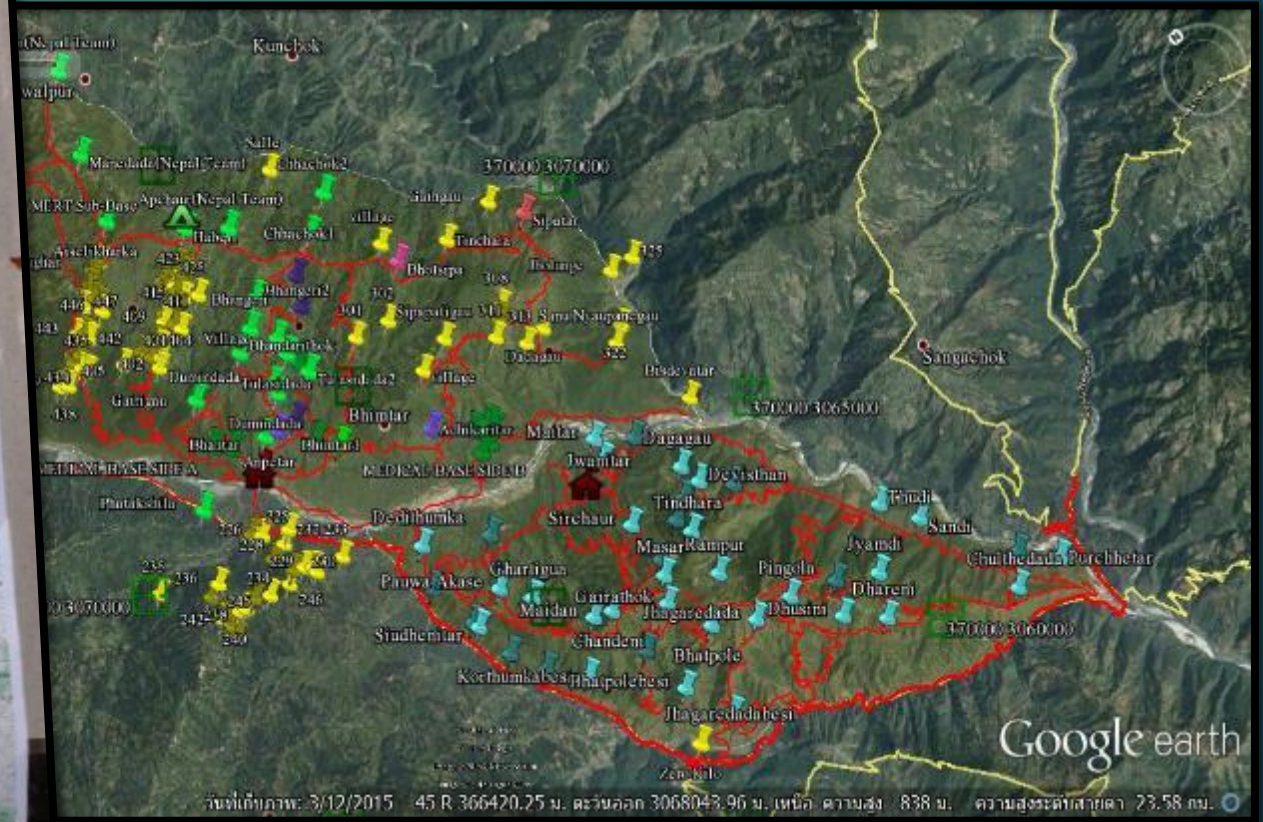
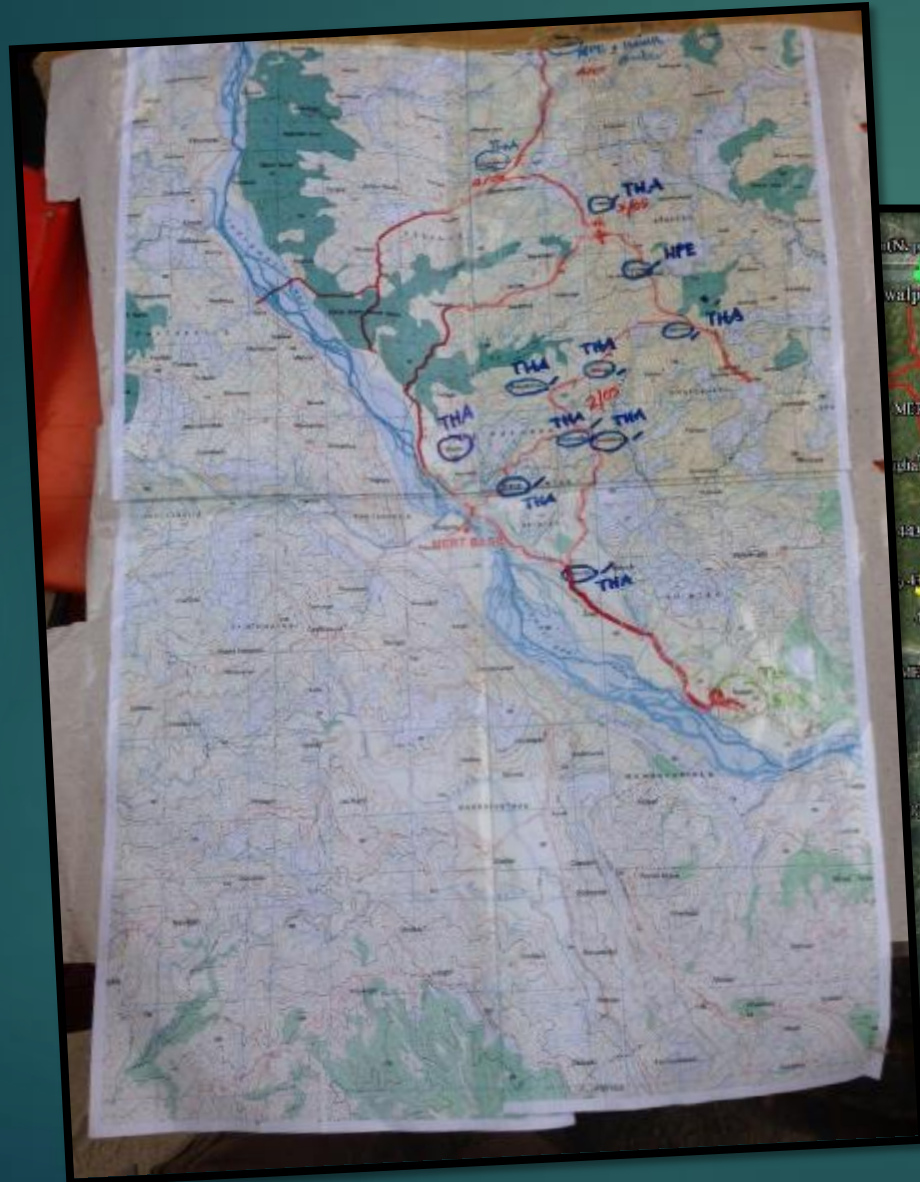


Prepare for Operation

- ▶ Mapping
- ▶ Food supply, Mobile telephone
- ▶ Meet with Nepal MOPH for information of any area that needs medical attention : Siphagat



Allocation of medical assistant units from Thai side and Nepalese side



Logistic limitation in Katmandu airport

- ❑ Katmandu is the only airport in the country that can handle the larger aircraft. There are strict weight restrictions:
 - the capital's 4,600-foot elevation
 - relatively short runway
 - 6,600-foot runway was damaged in the earthquake but still responded
- ❑ the airport choked by an influx of supplies:
 - workers there didn't have enough of the heavy equipment needed to efficiently handle large quantities of food and medical material arriving with relief workers.



Strategic entry point:

- Use smaller cargo aircraft and fly in more frequently
- Set up a land bridge to connect the airport to Nepal through a type of trans-shipment center.
- Shipments can be sent to the hub and shifted between trucks heading to different destinations.

May 10, 2015 3rd team arrived : Chandeni

- ▶ mission for 2 weeks
- ▶ 3rd team arrived with carrying baggages.
- ▶ New problem from one mistake
- ▶ New team or replacement
- ▶ Obstruction of medicine





Remote villages in Nepal's rugged mountains





Mobile Unit



Recommendation

- ❑ Setting up initial survey and assessment teams; cartography, computer mapping analysis
- ❑ Survey Technology; Global Navigation Satellite System, GIS, GPS, Remote Sensing
- ❑ Route and street clearing; scouting roads
- ❑ Transportation plan and management
- ❑ Coordination and collaboration among related organizations in both public and private sectors

Thank you

