



**Asia-Pacific
Economic Cooperation**

2017/SOM1/EPWG/020

Agenda Item: 7.1.3

**Input from Minister of Health on the Activities to
Ensure Safe Water, Environment, Sanitation After
Natural Disaster**

Purpose: Information
Submitted by: Viet Nam



**11th Emergency Preparedness Working Group
Meeting
Nha Trang, Viet Nam
18-19 February 2017**



APEC VIET NAM 2017 ENSURING SAFE WATER, ENVIRONMENTAL SANITATION AFTER NATURAL DISASTERS

Role and responsibility of the health sector

- MOH:
 - Member of the Central Steering Committee for Natural Disaster Prevention and Control; Central Committee of Flood and Storm Control (CCFSC)
 - EOC for Natural Disaster Prevention and Control, Search and Rescue in the Health Sector
- Health Environment Management Agency – MOH:
 - Responsible for environmental health, drinking and domestic water quality management, climate change in the health sector.

Most common health concerns in natural disasters

- Physical injury / deaths
- Water-born diseases
- Vector-born diseases
- Food poisoning
- Infection by contacting flood water

Health services in disaster

- First aid, victim transportation
- Providing food and nutrition products
- **Monitoring outbreaks**
- **Ensuring water, sanitation and hygiene**
- **Cleaning surrounding environment**
- **Bodies/dead animals management**

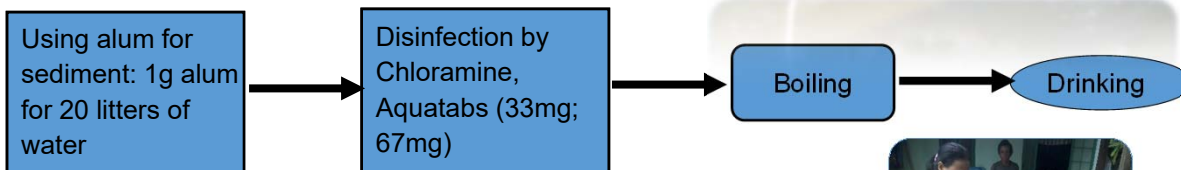


Preparedness

- Local emergency operation center and rapid response teams
- Essential medicine units, each serves for 2,000 - 4,000 people.
- Chemicals water treatment (together with guidance for user):
 - Alum (200g/household)
 - Chloramin B 25% (powder 50g/hh), Aquatabs (tablet), PUR, or other chloramine products...
 - Environment disinfection, insecticides (Deltamethrine, Permethrine, Lambdacyhalothrin...).
- Equipment, transportation
- Water tanks

Recovery – Water supply

- Flood water can be used in emergencies
- Water treatment is following below steps:



If alum not available:

- Clean clothes or bed net can be used for filtering water.
- Temporary sand filter



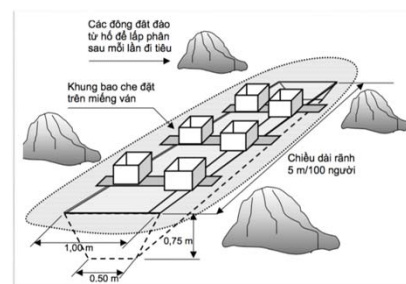
Recovery – Water supply

- Household water supply:
 - Cleaning well ground and tube or water tanks.
 - Pumping polluted water out of the well then empty the sludge in the well.
 - Filtering the well water by alum (50g/m³ water).
 - Disinfecting well water by chloramine B.
- Water supplier/scheme:
 - Checking whole water produce and
 - Controlling quality



Recovery – Sanitation

- Digging temporary pit latrines - high places, far way from house or water sources:
 - Personal pit latrine: Dig a temporary hole with size of 0.5m (W) x 0.5m (D).
 - Public pit latrine for 100 users
- Cover fecal by lime, ash or soil after defecation
- Fill up carefully the hole when it is full or after emergency
- Floating latrine in flooding areas



Recovery – Surrounding environment

- Cleaning up environment after floods
- Widening sewers/drainages
- Filling or removing all water puddles where mosquitos can live and growth
- Collecting and burring dead animals
- Spraying chemicals for disinfecting environment and exterminating disease-transmitting insects



Challenge

- Coordination between health and other sectors
- Inadequate resources for WASH response in disasters:
 - Chemicals, in particular aquatabs and other chloramine products
 - Equipment: For environment treatment, bodies management...
- Water treatment technologies in emergency
- Human excreta management in emergency
- Hand washing facilities
- Capacity of the health staff
- Emergency communication

Needs for the gap

- Ensuring adequate provision and storage of chemicals and equipment
- Enhancing capacity for health sector in responding to emergencies, natural disasters and extreme weather events
- Developing appropriate technologies for water treatment and human excreta in emergencies
- Promoting communication and information in responding natural disasters, including IEC material development and campaigns
- Knowledge: Learning event/Sharing experience

Proposal

Specific TA support proposed:

- Mekong River Delta: *Modeling on community-based response to the health impacts of natural disaster and climate change*
 - Most vulnerable to climate change and other extreme weather events
 - Low land, annual season flooding
 - Poor safe water supply and latrine
 - High risk of water-borne and vector-borne diseases
 - Need a comprehensive supporting plan



THANK YOU