13th Meeting of the Regional Interagency Working Group
on Information and Communication Technologies (ICT)
20 November 2009

Interagency cooperation proposal

Collaborative building disaster risk management communication capacities in Asia and the Pacific

Information and Communications Technology and
Disaster Risk Reduction Division (IDD)
ESCAP

Disaster communication function needs

- **Prior to disaster**
  - **Disseminating early warning**
    - **Siren/loudspeaker; Data network; Voice/short message broadcast; TV/radio broadcast**
    - **Private network; Cellular and satellite mobile; Fixed Phone/Fax; Internet; Amateur radio**

- **Approaching of major disasters**
  - **Evacuation guidance**
    - **Siren/loudspeaker; Voice/short message broadcast; TV/radio broadcast**
    - **Fixed, cellular & satellite phones; Private network; Amateur radio**

Function needs

- **Within first 3 hours**
  - **Reporting to relevant authorities**
    - **Phone; Fax; Short message**
    - **Fixed, cellular and satellite phone; Amateur radio**
  - **Among authorities and supporting organizations**
    - **Phone; Fax; Short message; Data network**
    - **Fixed, cellular and satellite phone; private network; Internet**
- **Within first 24 hours**
  - **Monitoring and warning of secondary disasters**
    - **Data network; Short message and voice broadcast through phone systems; Siren/loudspeaker**
    - **Cellular and satellite mobile; Private network; Internet**

Function needs

- **Within first 24 hours**
  - **Field news gathering and reporting**
    - **High rate data for TV & pictures; Lower rate for voice & text**
    - **Private network; Phone/Fax; Internet; Satellite data**
- **Beyond 24 hours**
  - **Among field teams & local coordinators**
  - **Among field team members**
    - **Voice; Short message**
    - **Cellular & satellite mobile; Citizen band (CB) radio; Walkie-talkie; Satellite short message service**

Function needs

- **Beyond 24 hours**

  - **Among government authorities, international organizations & international field teams**
    - **Voice/Fax; Data; Networking; e-mail**
    - **Fixed, cellular and satellite phone; Private network; Internet**

  - **Communication of victims with their family members**
    - **Voice; Short message; e-mail**
    - **Fixed, cellular & satellite phone; Internet**

Major conclusion of analysis

- **Satellite mobile**
  - Most effective for rapid deployment after disasters
  - Reporting disasters to relevant authorities
  - Receiving early warning
- **Cellular mobile base stations**
  - Local mobile service is mostly needed for field teams
  - Be resilient to continue or to rapid restore services
  - Connection to outside: satellite as back-up

Major conclusion of analysis

- **Broadband**
  - Support networking, cellular mobile, video/audio conferencing, tele-medicine, Wi-Fi
  - Private networks consider through IP platform
  - Satellite as a major way
- **Cellular & satellite network congestions**
  - Allocate more bandwidth
  - Expand cellular mobile larger handling capacity
- **Cross-boundary shipment of telecommunication equipment procedure be arranged in advance**

ernments are responsible to build
cities, it is not cost-efficient for
andby capacities that are
be rarely used

ve Building of Disaster Stand-By
cation Capacities

distribution of satellite mobile
to community level

tive satcom stand-by mechanism