TELECOMMUNICATION IN DISASTER MANAGEMENT

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March 29, 2006
Mandate of MoFDM

Vision
To reduce the vulnerability of people, especially the poor, to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level

Mission
To bring a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture

Objective
To strengthen the capacity of the Bangladesh Disaster Management System
Ministry of Food and Disaster Management

- Ministry of Food and Disaster Management (MoFDM)
  - Directorate General of Food (DGoF)
  - Disaster Management Bureau (DMB)
    - Comprehensive Disaster Management Programme (CDMP)
    - Cyclone Preparedness Programme (CPP)
  - Directorate of Relief and Rehabilitation (DRR)
STRATEGIC PALN  2005-2006

- The establishment and operationilization of a national disaster management information centre.
- The establishment of district disaster management information information centre.
- The development of a damage and needs assessment methodology.
- The integration of a flood security policy within relief operation procedures.
- The development of an all hazards community warning system.
# Institutional Structures for Disaster Management

## Technical Monitoring
- Bangladesh Met Department (BMD)
- Disaster Management Bureau (DMB)
- Bangladesh Water Development Board (BWDB)
- Flood Forecasting and Warning Center (FFWC)
- SPARRSO
- GSB
- Institute of Water Modeling (IWM)
- Soil Research Development Institute (SRDI)

## Capacity Building
- Disaster Management Bureau (DMB)
- Comprehensive Disaster Management Programme (CDMP)
- BRAC University Disaster Management Programme (BUDMP)
- Water Resources Planning Organizations
- BUET
- DU

## Preparedness & Response
- Ministry of Food and Disaster Management (MoFDM)
- Disaster Management Bureau (DMB)
- Directorate of Relief and Rehabilitation (DRR)
- Fire Services and Civil Defense Department
- Disaster Emergency Centre of Armed Forces Division
- BANGLADESH Red Crescent Society (BDRCS)
- Cyclone Preparedness Programme
- Specialized NGOs
# Sources of early warning information

<table>
<thead>
<tr>
<th>Information</th>
<th>Source</th>
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<tbody>
<tr>
<td>Cyclones and tidal surges</td>
<td>Bangladesh Meteorological Department (BMD)</td>
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<tr>
<td>Tsunami</td>
<td>Pacific Tsunami Warning Centre</td>
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<tr>
<td>Floods</td>
<td>Flood Forecasting and Warning Center (MoWR)</td>
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<tr>
<td></td>
<td>Bangladesh Meteorological Department (BMD)</td>
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<td></td>
<td>Climate Forecasting Applications in Bangladesh</td>
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<td></td>
<td>Institute of Water Modeling</td>
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<tr>
<td>Erosion</td>
<td>Center for Environmental and Geographic Information Services (MoWR)</td>
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<tr>
<td>Drought</td>
<td>Agricultural Information Services</td>
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<tr>
<td></td>
<td>Bangladesh Meteorological Department (BMD)</td>
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<td>(Probabilistic forecast)</td>
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<tr>
<td>Seasonal Unemployment</td>
<td>Agricultural Information Services</td>
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<td></td>
<td>Ministry of Food and Disaster Management (MOFDM)</td>
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Comprehensive Disaster Management Program

a program under MoFDM

1. Professionalise disaster management system
2. Mainstreaming risk management program
3. Strengthening community participation
4. Expanding risk reduction program
5. Strengthening emergency response systems
Early Warning Dissemination Systems

- **Cyclone Preparedness Program** (MoFDM) propagates emergency HF/VHF radio bulletins from BMD through a community volunteer network.

- **Flood Forecasting and Warning Center** (MoWR) sends daily email, fax and couriered water level prediction bulletins to national and district agencies, more frequently during emergencies.
Some hazards have well established and implemented prediction methodologies:

- Cyclones, river flooding, river bank erosion

Others show near-term potential for predictability:

- Flash flooding, rain flooding, water-loging, tsunami, seasonal unemployment

Some slow onset hazards are always present and increasing in severity:

- Salinity, arsenic contamination, air pollution, fire

Some may remain practicably unpredictable:

- Earthquake, Tornado, Accidents. Fire etc.
Disaster Management Information Center

❖ **Goal:** to implement effective information sharing among disaster management agencies and communities to support sustainable risk reduction and emergency response capacity:

❖ for all hazards
❖ in all sectors
❖ in normal times and emergencies
❖ throughout the nation and regionally
The DMIC encourages and, if requested, will assist the primary source agencies to disseminate warning information directly to communities.

The DMIC will integrate early warning information sources and users in regional, national and local level institutions.

Linkage among International disaster management stakeholders like JRC, FEMA, ADRC, Relief Web etc.
ICT Infrastructure of DMIC
Short-term

District
Mid-term

District

Upazilla
Long-term

District

Upazilla

Union
Better coordination between different Ministries and other stakeholders, the Emergency Operation Centre (EOC) is located at the Ministry of Food and Disaster Management.

- EOC is connected with all the District headquarters with HF Radio Links.
- Telecommunication facilities (HF Radio connection, BTTB connection and Cellular connection) at EOC ensure fully functional telecommunication links between EOC and District headquarters during emergencies.
RECOMMENDATION

- Telecommunication Infrastructure Should be disaster resistant
- Private operators should link with DMIC for transferring message/warning signals
- Satellite phone may use in the disaster prone area during emergency
- Toll Free Number for the concerned institutions
Thank you all . . . .