



# TELECOMMUNICATION IN DISASTER MANAGEMENT

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Ministry of Food and Disaster Management

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## 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**

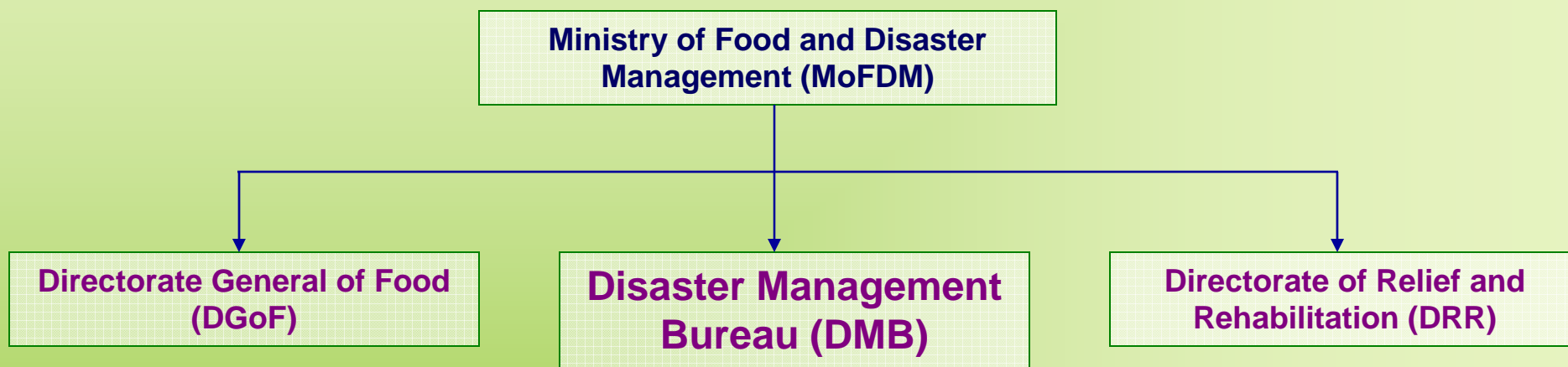
To bring a paradigm shift in disaster management from conventional response and relief to a more comprehensive risk reduction culture

### **Objective**

To strengthen the capacity of the Bangladesh Disaster Management System



# Ministry of Food and Disaster Management



- Comprehensive Disaster Management Programme (CDMP)
- Cyclone Preparedness Programme (CPP)



## STRATEGIC PALN 2005-2006

- THE ESTABLISHMENT AND OPERATIONILIZATION OF A NATIONAL DISASTER MANAGEMENT INFORMATION CENTRE.
- THE ESTABLISMENT OF DISTRICT DISASTER MANAGEMENT INFORMATION CENTRE.
- THE DEVELOPMENT OF A DAMAGE AND NEEDS ASSESMENT 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	Capacity Building	Preparedness & Response
<ul style="list-style-type: none"> <li><input type="checkbox"/> Bangladesh Met Department (BMD)</li> <li><input type="checkbox"/> Disaster Management Bureau (DMB)</li> <li><input type="checkbox"/> Bangladesh Water Development Board (BWDB)</li> <li><input type="checkbox"/> Flood Forecasting and Warning Center (FFWC)</li> <li><input type="checkbox"/> SPARRSO</li> <li><input type="checkbox"/> GSB</li> <li><input type="checkbox"/> Institute of Water Modeling (IWM)</li> <li><input type="checkbox"/> Soil Research Development Institute (SRDI)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Disaster Management Bureau (DMB)</li> <li><input type="checkbox"/> comprehensive Disaster Management Programme (CDMP)</li> <li><input type="checkbox"/> BRAC University Disaster Management Programme (BUDMP)</li> <li><input type="checkbox"/> Water Resources Planning Organizations</li> <li><input type="checkbox"/> BUET</li> <li><input type="checkbox"/> DU</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Ministry of Food and Disaster Management (MoFDM)</li> <li><input type="checkbox"/> Disaster Management Bureau (DMB)</li> <li><input type="checkbox"/> Directorate of Relief and Rehabilitation (DRR)</li> <li><input type="checkbox"/> Fire Services and Civil Defense Department</li> <li><input type="checkbox"/> Disaster Emergency Centre of Armed Forces Division</li> <li><input type="checkbox"/> BANGLADESH Red Crescent Society (BDRCS)</li> <li><input type="checkbox"/> Cyclone Preparedness Programme</li> <li><input type="checkbox"/> Specialized NGOs</li> </ul>



## Sources of early warning information

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



# 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



## Early warning for risk reduction

- ❖ 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-logging, 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

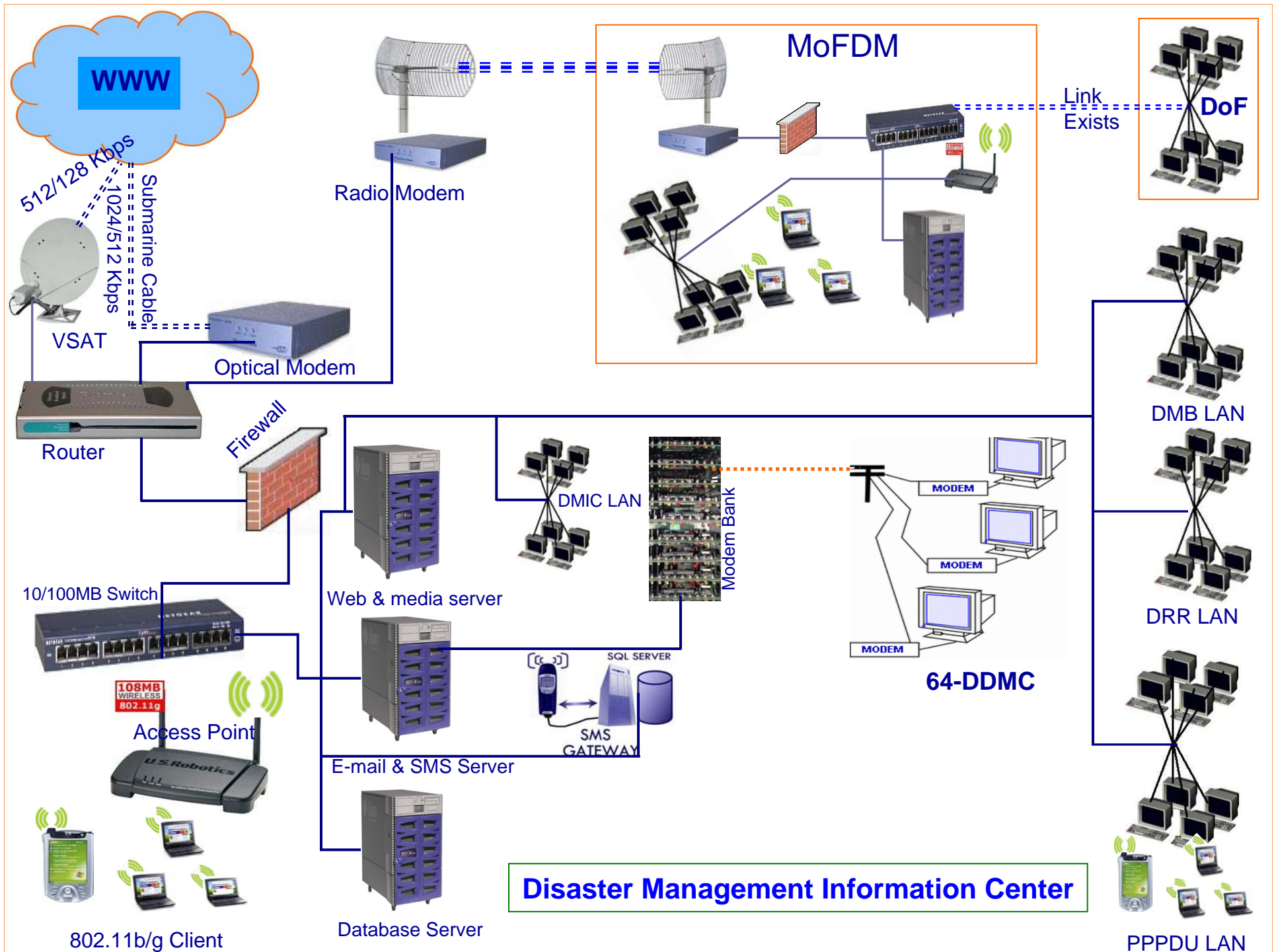


## Early Warning Information Sharing

- ❖ 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.



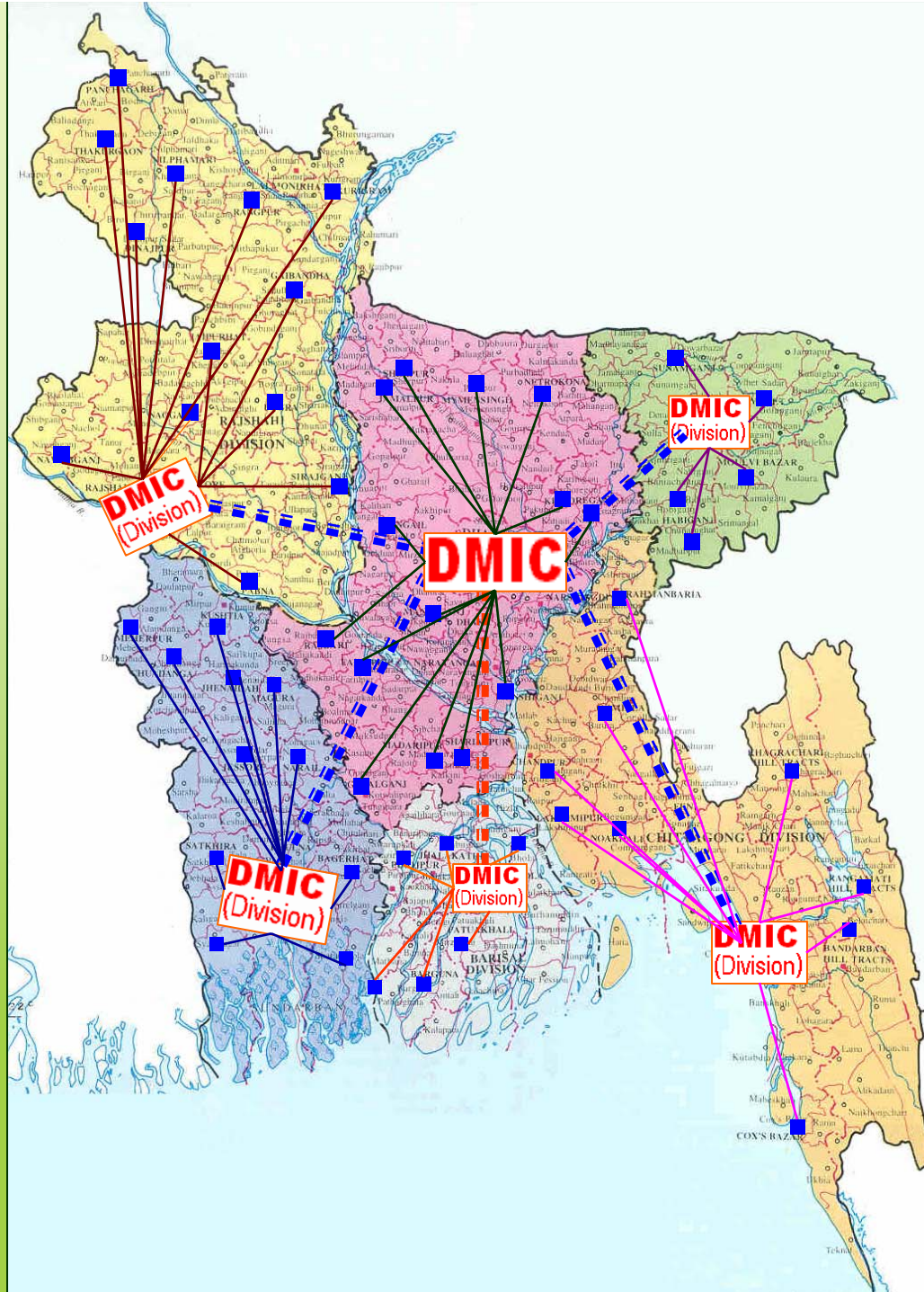
**ICT Infrastructure of DMIC > > > > .....**





# Short-term

■ District

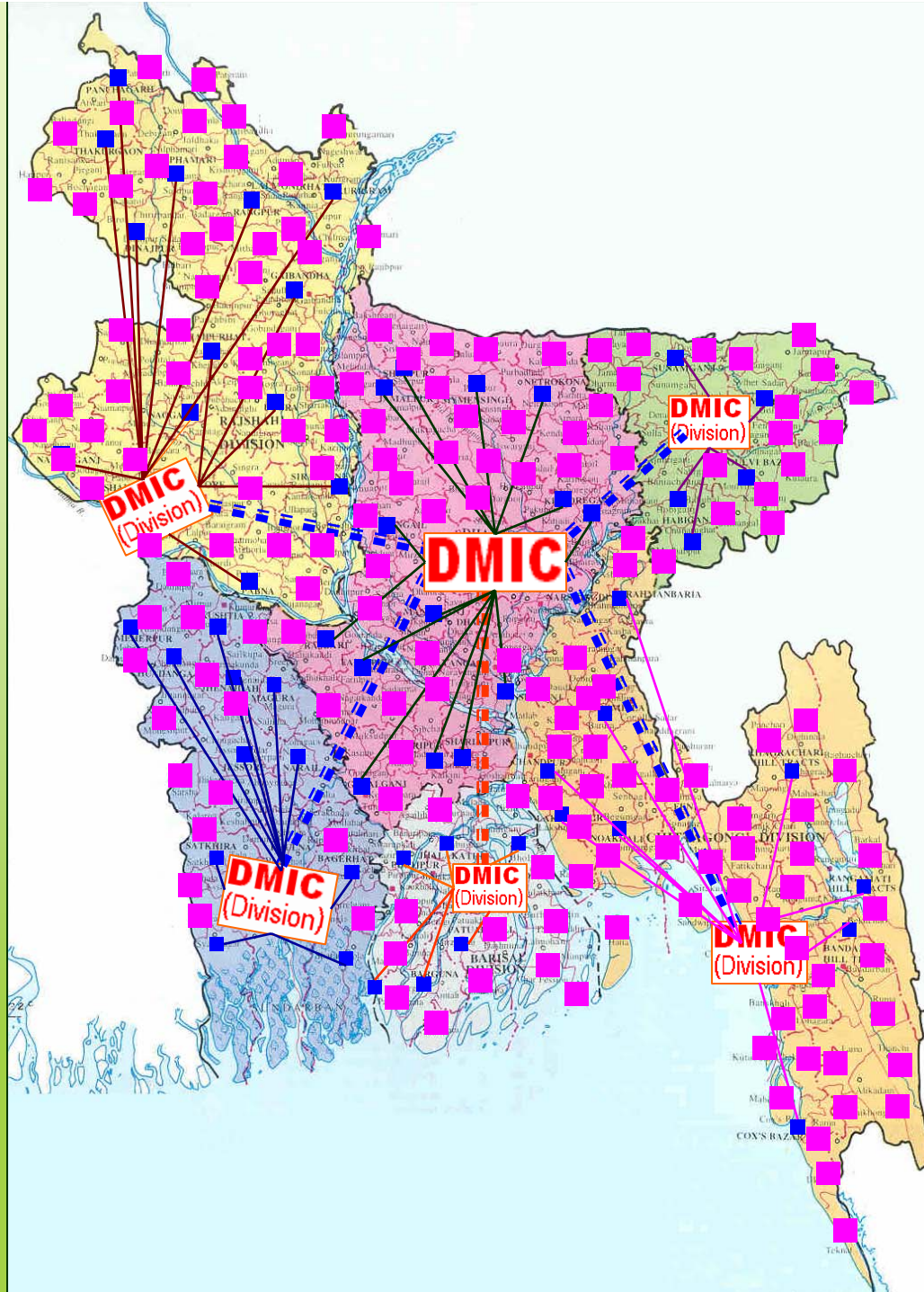




# Mid-term

■ District

■ Upazilla



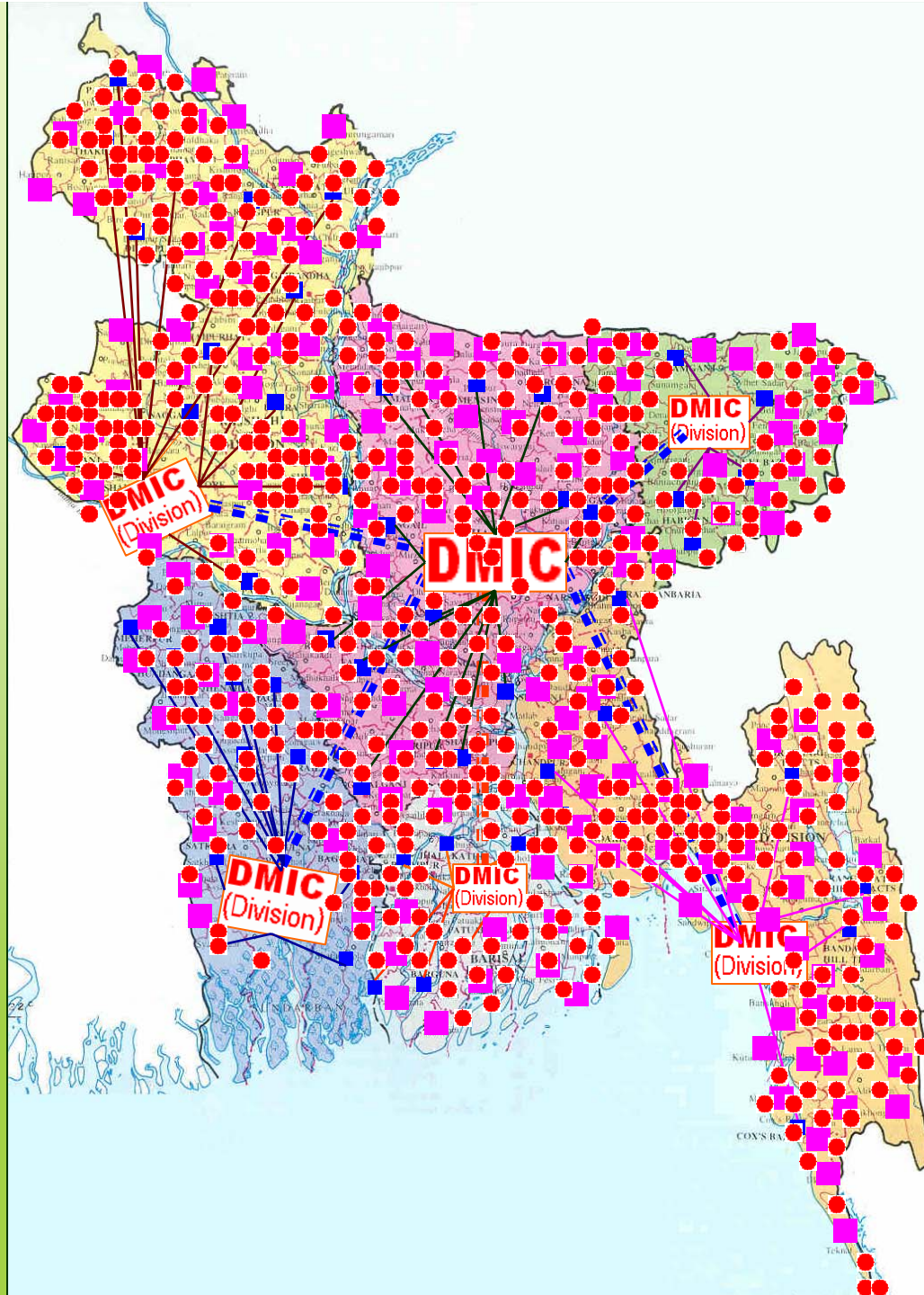


Long-term

■ District

■ Upazilla

● Union





## EMERGENCY OPERATION CENTERS (EOC)

- Better coordination between different Ministries and other stockholders, 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 . . . .**