Emergency Telecommunications in Bangladesh
Bangladesh
One the most Disaster Prone Countries of the World
At least 34 cyclones ravaged the coastline over last four decades, claiming more than five hundred thousand lives.
Sustainable Emergency Telecommunications for disaster prone areas in Bangladesh

- Cyclone / Storm Surges are part of life in Bangladesh & people live in coastal areas for survival.
- Access to basic telecommunication for these courageous people be considered as fundamental human right.
- Provide disaster proof Emergency Telecommunications services for Coastal Belt of Bangladesh
- Cyclone shelters be provided with Telephone services & used for Public Call Office (PCO); Tele-Medicine & Tele-Education purposes.
Bangladesh

Floods, cyclones, river bank erosion, and earthquake threaten large population of the country and are instrumental for unmanageable catastrophe.
Bangladesh

Offshore islands in Bay of Bengal lack basic infrastructure and amenities that bewilder life of island dwellers. Some islands are unfit for human habitation. But they contain rich agricultural land and fish resources that attract poor landless people. Most of the char-dwellers, earlier rendered homeless by river erosions, migrate to the islands from far-flung areas to make a living.
Flood in Bangladesh
10 September 1998
Unprotected Chars & Islands

Many Chars have neither Coastal Dikes nor Cyclone Shelters. During 1991 cyclone there were only 300 Cyclone Shelters for a population of 13 million. Number of Cyclone Shelters has now been increased to more than 1500, but it is still quite inadequate.

The most disaster prone areas of Bangladesh are off-shore islands in Bay of Bengal and the river banks. Little or no telecommunication facilities are available there.
Damage done by 1991 Cyclone

Damaged MW Tower
April 1991
Telecommunication in Chars & Islands

Improve forecasting and communication facilities to enhance national capabilities to respond effectively to disaster and reduce impacts of adversity.

Reliable communications are an essential requirement for effective disaster management.
Telecommunications are indispensable tool for disaster mitigation and for co-ordination of international and national responses to disasters.
Telecommunication links many a times get disabled and disrupted during the first hours of a major disaster. When disaster strikes, there is an urgency to establish effective and comprehensive communication links at the disaster site, between the site and the national systems for dealing with disaster response, and with the concerned international community.
Disaster Proof Telecommunication System

Following April 1991 cyclone, national and international telecommunications were interrupted due to the collapse of vital microwave tower at Chittagong.

Bangladesh was cut off from the rest of the world for several days before the services could be partially restored.
Telecom Network in disaster prone areas

BTTB / Private Operators had little or no telecommunication network in most disaster prone coastal areas of Bangladesh till a few years back.

Adaptation of wireless technologies like Cellular; WLL; Radio Trunking; VSAT, Internet etc. by BTTB as well as by Private Operators are changing the scenario fast.
National Backbone Network of BTTB
AKTEL Coverage

Coverage end 2005 (Network Capacity 3.1 M)

Aktel radio network covers
6 divisions
61 districts
351 upazilla / Thana

Note: Predicted site radius is 5 Km

radio network area covered 51.7%

CLEARLY AHEAD
www.aktel.com
SDH Backbone Network

<table>
<thead>
<tr>
<th>Tower</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backbone (75m)/Spur (55m)</td>
<td>44</td>
</tr>
<tr>
<td>BTS Green Field (42m)</td>
<td>17</td>
</tr>
<tr>
<td>CTG Hill Tracts</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>64</strong></td>
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</tbody>
</table>
Mobile Operator – Market Share

2003
- AKTEL: 30%
- GP: 53%
- B. Link: 9%
- CityCell: 5%
- TeleTalk: 3%

2004
- AKTEL: 29%
- GP: 62%
- B. Link: 1%
- CityCell: 8%
- TeleTalk: 0%

2005
- AKTEL: 30%
- GP: 53%
- B. Link: 9%
- CityCell: 5%
- TeleTalk: 3%
Telecommunication Network to Rural Areas and Cyclone Shelters

The combined networks of BTTB and the Private Operators should be able to provide Telecommunication facilities in the disaster prone areas of Bangladesh, in a much more resilient manner than hitherto possible.
Emergency Telecommunication for Disaster Management

Should provide Telecommunication facilities for:

(a) Administrative Organs and Public Institutions dealing with Disaster Management

(b) Disaster / Cyclone / Flood Relief Shelters

(c) Actual areas where the disaster strikes.
Telecommunication for Government & Public Institutions dealing with Disaster Management

The administrative organs and public institutions designated by Disaster Management Bureau are to be linked together by BTTB network as well as Private Operators network to provide redundancies.

It should enable the headquarters to broadcast urgent information to all the organs / bodies at once.
Telecommunication for Cyclone / Flood Relief Shelters

Disaster Relief Shelters are the focal areas where people in distress take shelters.

These are normally located in remote areas, where generally no telecommunication facilities are available.

Telecommunications in Cyclone Shelters must be used regularly to ensure its operation during emergencies.
Ensuring Telecommunications during Disasters

Cyclone / Flood Relief Shelter are to be used for Multi Purpose activities like Public Call Office (PCO); Hospitals (Tele-Medicine) and Schools (Tele-Education) purposes and that will ensure operation of Telecommunication Links during a disaster.
Emergency Operation Centre / Control Room
With HF Radio Communication
Telecommunication Network of Cyclone Preparedness Programme in the Coastal Belt of Bangladesh
High Frequency (HF) Radio Services

HF Radio provide Amateur Radio Services & Economic Telecommunications particularly suiting NGOs, international and national aid responses to disasters.
Eternal Vigilance with Emergency Telecommunication is the Price to be paid for Disaster Management in Bangladesh.
Thank You

for your attention

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