

INTEGRATED DISASTER RISK MANAGEMENT (IDRiM) & CRITICAL INFRASTRUCTURE

P V Suresh
Chief Warden
Civil Defence Corps
Greater Mumbai

**The Rapid restoration of Critical Infrastructure is
the most important need to facilitate an early
recovery from Disasters like**

Flood and Earthquake

26 July 2005

Shook Mumbai

And its Disaster Preparedness.

26th July floods brought a near total collapse of almost all the critical infrastructure.

**Transportation, Communication,
Electricity, Food & Water supply,
Emergency Services.**

Train movement came to halt by 14.30 p.m. Due to stoppage of trains, vehicular traffic intensity on **roads** suddenly increased.

About 200 km of **road length** was submerged in flood water and the traffic was standstill on all such **internal roads, major roads and corridors** of traffic.

INTEGRATED DISASTER RISK MANAGEMENT (IDRiM)

Thousands of vehicles were left by the people on these submerged roads. The removal of these vehicles from road corridors after receding of water on 27th July was a big task.

More than **20000** small vehicles, about **2500** BEST buses and about **25%** of trains, thousands of **two wheelers/ three wheelers** etc. were damaged in rains and were non operational for weeks.

INTEGRATED DISASTER RISK MANAGEMENT (IDRiM)

Power supply in suburban area got suspended from the evening of 26th July and it was restored only after receding of water.

Telecommunication such as telephone, cellular phones got suspended one by one after from around 17.00 p.m. Cellular phone network (GSM/CDMA) of all the service providers got suspended. Land lines of M.T.N.L. were also only partially functional

INTEGRATED DISASTER RISK MANAGEMENT (IDRiM)

About **22%** of Mumbai's land was submerged in rain waters on 26th and 27th July.

The property worth **billions of rupees** was lost/damaged which still could not be estimated at large.

Commencing from the evening of 26th July, the daily consumables **could not** reach to the people.

The world over it has been experienced that a prompt, well-coordinated and effective response mounted in the aftermath of disasters not only minimizes loss of life and property but also facilitates early recovery and helps in restoration of normalcy.

INTEGRATED DISASTER RISK MANAGEMENT (IDRiM)

In chaotic conditions immediately after a catastrophic disaster, Emergency Response personnel and decision makers should understand the dynamics underlying these infrastructures and its interdependencies. Failure to understand these dynamics will result in ineffective response and poor coordination between decision makers and agencies responsible for rescue, recovery, and restoration. It could also cause mismanagement of resources, including supplies, rescue personnel, and other services, and the chance of emergency responders losing public trust.

Emergency Services

is one of the most important of the Critical Infrastructure along with Communications, Transport, Energy, Water, Food and Public Health Services

These are not only interdependent but also can cause a cascading effect and collapse as a result of one or more of them collapsing.

To make these services resilient to withstand disasters, all the agencies and their functionaries must clearly understand their **roles and responsibilities** and the specific actions they have to take for responding to disaster or threatening disaster situations.

INTEGRATED DISASTER RISK MANAGEMENT (IDRiM)

The important ingredients of an effective response system are **integrated institutional arrangements**, state of the art forecasting and early warning systems, failsafe communication system, rapid evacuation of threatened communities, quick deployment of specialized response forces and coordination and synergy among various agencies at various levels in dealing with any disaster.

POST 26 JULY:

- Fact Finding Committee on Mumbai Floods Chaired by Dr. Madhavrao Chitale Submitted its report and Recommendations.
- Railways: WR and CR
- Electric Supply: BEST & Reliance,
- Telephones: MTNL/BSNL /Cellular (CDMA/GSM)
- MCGM: BRIMSTOWAD / Meethi & 4 other River/Regeneration of Mangroves etc. etc.

Civil Defence:

The Civil Defence Amendment Bill, 2009 expands the definition of civil defence to include “any measure taken for the purpose of disaster management before, during, at or after any disaster”.

The Bill defines “disaster” and “disaster management” as defined in the Disaster Management Act, 2005.

NO

no 26 July

or

any other 26

Need to SHAKE Mumbai

Ever again

Thank You

I already Said
Thank You

