

Disaster Management in Indian Railways

An Introduction

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Background

- World's fourth largest railway network
- Route length of 72,038 km and total track length of 1,23,236 km
- More than 13,452 passenger trains and 9,141 goods trains daily, from 7,318 stations across India
- The safety of railway operation and safety and security of the millions availing the railway services are of paramount importance.
- The 'Citizen Charter' of the Indian Railways also spells out the railways' commitment in providing safe and dependable train services.
- There is a need of institutional and coordination mechanism for effective Disaster Management.

Disaster Defined

- The concept of a Disaster was not adequately and comprehensively defined on Indian Railways till 2005. It was accepted that a Disaster situation implies to cover only cases of serious train accidents.
- The definition of Disaster was legislated for the first time in the Disaster Management Act, 2005 as below:

“disaster” means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area;

Disaster Defined

- The broad principles of disaster for any department of the government changed to the concept of any incident which could not be handled alone by that department i.e. if it was beyond the coping capacity of a particular department
- With this came the concept of the departments of Government of India as also the State governments required to join hands to extend whatever facilities available with them to provide relief/rescue and mitigation on the occurrence of a disaster

Disaster Management Defined

Disaster Management Act 2005 defines disaster management as below:

“disaster management” means a continuous and integrated process of planning, organising, coordinating and implementing measures which are necessary or expedient for-

- (i) prevention of danger or threat of any disaster;*
- (ii) mitigation or reduction of risk of any disaster or its severity or consequences;*
- (iii) capacity-building;*
- (iv) preparedness to deal with any disaster;*
- (v) prompt response to any threatening disaster situation or disaster;*
- (vi) assessing the severity or magnitude of effects of any disaster;*
- (vii) evacuation, rescue and relief;*
- (viii) rehabilitation and reconstruction;*

Features of DM Act, 2005

- 79 sections and 11 chapters.
- It ensures effective implementation and monitoring of disaster management plans.
- Three tier structural system to manage disasters :
 - **National Disaster Management Authority (NDMA)** headed by Prime Minister-responsible for laying down the policies, plans and guidelines for disaster management for ensuring timely and effective response to disaster at national level, to be assisted by **National Executive Committee** headed by Secretary of the Deptt/ministry of GoI having administrative control of Disaster Management
 - **State Disaster Management Authorities (SDMA)** headed by Chief Ministers (LG for Delhi)-responsible for laying down policies and plans for disaster management in the State, to be assisted by **State Executive Committee** headed by chief Secretary of the State
 - **District Disaster Management Authorities** headed by DM/DC and Co-chaired by chairman of local bodies- To act as the district planning, coordinating and implementing body for disaster management. It has to take all necessary measures for the purposes of disaster management in the district as per the guidelines laid down by the National Authority and the State Authority.

Features of DM Act, 2005

- Constitution of National Disaster Response Force (NDRF)
- Constitution of National Disaster Response Fund, National Disaster Mitigation Fund and Disaster Response Fund and Disaster Mitigation Fund at state and district level
- Establishment of **National Institute of Disaster Management** responsible for planning and promoting training and research in the area of disaster management, documentation and development of national level information base relating to disaster management policies, prevention mechanisms and mitigation measures.
- Provision of offences and penalties for violation of any provision of the Act.

National Disaster Management Plan

- In accordance with the provisions of the Disaster Management Act, 2005, the guidance given in the National Policy on Disaster Management, 2009 (NPDM), and the established national practices
- Provides a framework and direction to the government agencies for all phases of disaster management cycle.
- A “dynamic document” in the sense that it will be periodically improved keeping up with the emerging global best practices and knowledge base in disaster management
- Specifies who is responsible for what at different stages of managing disasters

National Disaster Management Plan - Vision

Make India disaster resilient, achieve substantial disaster risk reduction, and significantly decrease the losses of life, livelihoods, and assets – economic, physical, social, cultural & environmental – by maximizing the ability to cope with disasters at all levels of administration as well as among communities

Important Provisions In DM Act 2005 For Railways

- **Sections 35, 36 & 37** state the responsibilities of Ministries & Departments of the Central Government per which a number of measures/actions are to be taken either on their own or in consultation with National Disaster Management Authority (NDMA)
- **Section 35** of the Act states that the Central Government shall take all such measures as it deems necessary and it includes coordination of actions of the Ministries or Departments of the Government of India, State Governments, National Authority, State Authorities, Governmental and Non-Governmental organizations, ensure appropriate allocation of funds, deployment of Naval, Military and Air Forces and provide assistance to the National Authority and State Government.

Important Provisions In DM Act 2005 For Railways

- **Section 36** of the Act states that it shall be the responsibility of every Ministry or Department of the Government of India to take measures necessary for prevention of disasters, mitigation, preparedness and capacity-building, respond effectively and promptly to any threatening disaster situation and make available its resources to the National Executive Committee or a State Executive Committee for the purposes of responding promptly and effectively to any threatening disaster situation or disaster.
- **Section 37** of the Act states that every Ministry or Department of the Government of India shall prepare a Disaster Management Plan, review and update annually the plan and forward a copy of the plan to the National Authority for its approval.

Definition of a Disaster on Railways

Based on the definition of the Disaster Management Act 2005, Ministry of Railways has adopted the following definition of Railway Disaster:

Railway Disaster is a serious train accident or an untoward event of grave nature, either on railway premises or arising out of railway activity, due to natural or man-made causes, that may lead to loss of many lives and/or grievous injuries to a large number of people, and/or severe disruption of traffic etc, necessitating large scale help from other Government/Non-government and Private Organizations

Disaster Management in Indian Railways

- The Indian Railways were managing disasters relating to train accidents in accordance with the rules and procedures contained in the Accident Manual
- Ministry of Railways constituted (September 2002) a High Level Committee (HLC) to review the disaster management system over the Indian Railways related to train accidents and natural calamities and to identify additional technological and managerial inputs required to quicken the pace of rescue, relief and restoration of operations
- The HLC made 111 recommendations which were accepted by the Railway Board in July 2003

Disaster Management in Indian Railways

- Major recommendations of HLC were as below:
 - Detailed disaster management plans should be devised at the zonal and divisional levels
 - Relief trains and medical vans should be adequately provided, strategically located, upgraded to operate at higher speed and with modern equipment
 - Rescue ambulances and other infrastructure should be provided including facilities in hospitals. Communication facilities should be upgraded.
 - MoUs should be entered into with State Governments, public/private agencies, Armed forces etc to improve the response time during disasters
 - Crack rescue teams should be formulated. Specialized training in rescue, extrication, relief and restoration techniques should be provided to staff

Disaster Management in Indian Railways

- MoR in Aug 2003 formulated a Corporate Safety Plan as a means to realize the vision of an accident free and casualty free Indian Railway system
- Apart from addressing the safety concerns, focus on modernization of Disaster Management was reiterated in Corporate Safety Plan
- Salient features of the Corporate Safety Plan :
 - Extensive use of Anti Collision Device (ACD) to prevent collisions
 - Replacement of overaged tracks, bridges, S&T equipment and rolling stock to reduce derailments
 - Manning of unmanned level crossings (UMLC) and use of Train Actuated Warning Device and ACD to reduce level crossing accidents
 - Introduction of modern bridge inspection and management system
 - Filling up of safety category posts etc.
- MoR constituted High Level Safety Review Committee under chairmanship of Shri Anil Kakodkar which submitted report in Feb 2012

Changed Philosophy of Disaster Management in Railways

- Serious train accidents, not the only events termed as disasters.
- Other events, e.g. Internal security related events like terrorist attack at station/train, marooning of train due to flash flood, disruption to traffic due to natural factors like earth-quake, cyclone, floods etc. are termed as Disasters
- No more Relief and Rescue Centric
- Holistic Approach adopted to incorporate :-
 - Prevention
 - Mitigation
 - Preparedness
 - Rescue and Relief
 - Rehabilitation

Changed Philosophy of Disaster Management in Railways

New Philosophy gives more Emphasis on Prevention and Mitigation as under:

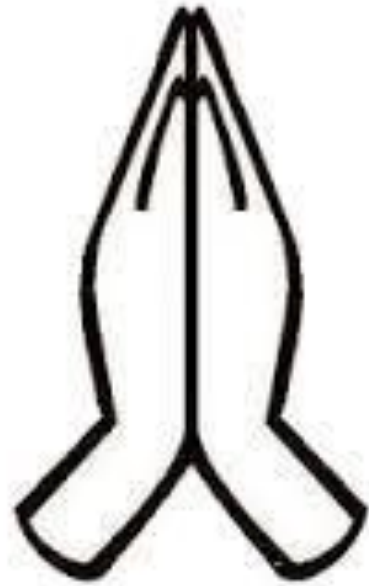
- Prevent and mitigate disasters
- Audit Existing Systems for Disaster Resistance, Disaster Prevention and
- Mitigation on the basis of NDMA's and self-prepared guidelines
- Disaster Management in Developmental Planning – New activities should be disaster resistant
- Preparedness, Rescue, Relief and Rehabilitation - Dimensions of DM
- Expertise based response from all stake holders
- Pooling of resources of all agencies, e.g. local administration, community, defence, hospitals and other Govt. organizations

Nodal department for DM Policy Formulation on Railways

- **Safety:** Disaster Management plan of MoR at Zonal & Divisional level
- **Medical:** Hospital DM plans
- **Security:** Security arrangements (drills etc)
- **Engineering:** Management of Floods, Cyclones, Earthquakes, Landslides, etc and preventive action/ mitigation
- **Mechanical:** Rescue and Restoration centric DM including preparation of plans and procurement of specialized equipment and rescue training of staff

Disaster Management Plan for Ministry of Railways

- Disaster Management Plan 2019 issued by Safety Directorate in November, 2019
- Based on the National Disaster Management Plan, context-specific changes were made in the DM plan of Ministry of Railways duly indicating the role and responsibilities at Board, Zonal Head Quarters and Divisional level.
- Disaster management plan also contains detailed guidelines relating to cases of breach/floods, earthquakes, cyclones, manmade disasters like terrorism etc.
- Accident Manual of Railways may be referred for details related to train accidents.
- Guidelines on crowd management and role of RPF in crowd control based on NDMA guidelines on “Managing Crowd at Events and Venues of Mass Gathering”.



*Thank
You*