

## SECOND INDIA DISASTER MANAGEMENT CONGRESS

4-6 November, 2009, Vigyan Bhawan, New Delhi

Thematic Session on  
Industrial & Chemical Disasters  
5<sup>th</sup> November, 2009, Hall No.4, First floor

Presentation on

### "NSC's Experience in Developing an Integrated Approach in Disaster Management"

*R. P. Bhamushali*

Adviser (Technical), NSC

## APELL IMPLEMENTATION

- **APELL: Awareness & Preparedness for Emergencies at Local Level**
- NSC is implementing in India in collaboration with UNEP from 1992
- APELL addresses issues:
  - Community awareness
  - Stimulate development of co-op response plans, Local-level preparedness
  - Effective inter-action among Stakeholders - Govt, community & Industry to deal with emergency
  - Encourage accident prevention

## Lessons of APELL in India

- APELL Proved to be a Strategic Process
- Strengthen APELL's All-hazard approach
- Measures of UNEP proved effective in creating International network and sharing experiences
- For sustained national-level progress, strategy to have 2-tier structure-nodal ministry at policy level and a reputed technical organisation at the field level proved successful in India
- Holistic approach to address all segments of the DM Cycle and multi-hazard approach is more effective

## NSC's Approach in Integrating DM in its services

- Safety Audits
- Training
- Safety Awards
- Emergency Planning
  - Carry out Risk Analysis
  - Develop/Review on-site Emergency Plans using multi-hazard approach
  - Guide in testing of on-site Emergency Plans
  - Observer for Mock Drills
  - Develop off-site Emergency Plans-interactive and self re-inforcing approach

## On-site emergency Plans

- Critical deficiencies observed relating to:
  - Risk Assessment
  - Non-use of Standard Terminology
  - Format of the Plan
  - Possibilities of an event triggering others were not considered
  - "Off-site" aspects of the "On-site" not included- NSC suggests inclusion of a separate section which is included in the NDMA Guidelines

## Off-site Plan: Interactive & Self-re-inforcing Approach

- Process of developing off-site plan has to be very interactive and participative.
- Points for discussion: identification & discussion of deficiencies in the existing on-site plans & approach to be followed in developing off-site plan.
- Discussions/seminars with Crisis Groups, industries and authorities also serve as a training tool to develop competence and consensus to own plan & its implementation.

## Development of off-site plan: Objective of National Strategy/Approach

Objective: Strengthen close interaction, training and the self compliance with statutory responsibilities which only can contribute to long term capacity building within the system

## Testing of emergency Plans

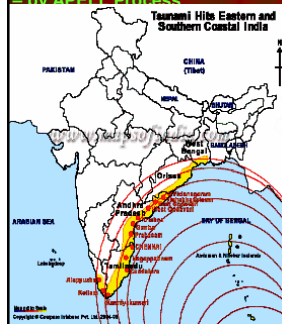
- Conducting emergency drills- is it to satisfy regulatory requirements?
- Scientific way followed?
- Debriefing and documentation done?
- Implementation of recommendations?
- Drill protocol developed and followed?
- Stages- Briefing/Orientation Seminar; conducting T.T., Functional Exercise prior to conducting full scale Drill
- Strong need for developing a set of national guidelines & protocol for testing off-site plans by a multi-agency task force.

## NSC's Project Experience of Disaster Risk Reduction in Tourism Destination at Kanyakumari

- 2-yr Project at Kanyakumari in collaboration with UNEP & in partnership with SRSA & IHRA supported by Kanyakumari District Administration
- Set up 33-member Co-ordination Group (CG) of stake-holders
- Regular meetings and participative activities of CG to steer the project implementation
- Developed risk contours, DM Plan
- Carried out a mock drill for evacuation of tourists from Vivekanand Rock Memorial on 12<sup>th</sup> September, 2008; appreciated by UNEP & other international agencies. Co-operation and support provided by Kanyakumari District Administration played key role

## Background

### Disaster Risk Reduction in Tourism Destination – Kanyakumari – by APELL Process



- **Duration:** 24 months (Oct. 06 to 30<sup>th</sup> Sept 08)
- **Funding:** European Commission
- **Collaborators for India Project**
  - UNEP
  - NSC
  - NAC Sub-centre, Tuticorin
- **Technical Support**
  - Swedish Rescue Services Agency, Sweden
  - International Hotel & Restaurant Association
- **Supported by Kanyakumari District Administration**

## Disaster Risk Reduction in Tourism Destination – Kanyakumari

### Activities

- A 33- Member CG established by DC in Mar. 07 (APELL approach)
- Assessed Status of Disaster Management
- Project Launched in APELL Training Workshop (21-23 Mar 07)
- Organised a 4-day Training workshop on Risk Assessment, Emergency Planning and Drill (2-5 May 07)
- Carried out Shelter Assessment Study (13-14 Sept 07)
- Conducted Vulnerability Assessment study and developed map (Dec 07)
- Prepared DM Plan for Kanyakumari Town
- Conducted evacuation drill for tourists (12th Sept 08)

## Evacuation Drill - Preparation

- **Preparation of a Small-scale Drill meeting (11–12 Jun.08)**
  - Involvement of all stakeholders
  - Experts from SRSA participated
  - Scenarios discussed and finalized date (12<sup>th</sup> Sept 08) (evacuation of tourists from VRM due to Tsunami)
  - Meeting with DC and Vivekananda Kendra (12<sup>th</sup> Jun)
- Scenario finalized and distributed among all stakeholders
- Meeting organised and again discussed with all response players (2<sup>nd</sup> Sept 08)
- Orientation seminar on 11<sup>th</sup> Sept . Discussed scenario and roles of every organization as per the pre-decided objectives for conducting the drill. (45 people). Decided observers (10 observers at 8 locations)

### Evacuation Drill Scenario

Scenario : Tsunami Early warning received from EOC to village Panchayat Office and evacuate tourists from VRM by Poompuhar Shipping Corporation and take them to Shelter (Rly. Stn.)

#### Objectives:

- To test effectiveness of Communication
- To test procedure of evacuation of tourists
- To test Medical Preparedness
- To test effectiveness of Rescue operation
- To test Transportation of tourists to Shelter (Rly. Stn.)



### Kanniyakumari Town & Vivekananda Rock Memorial



### Vivekananda Rock Memorial – Ferry services

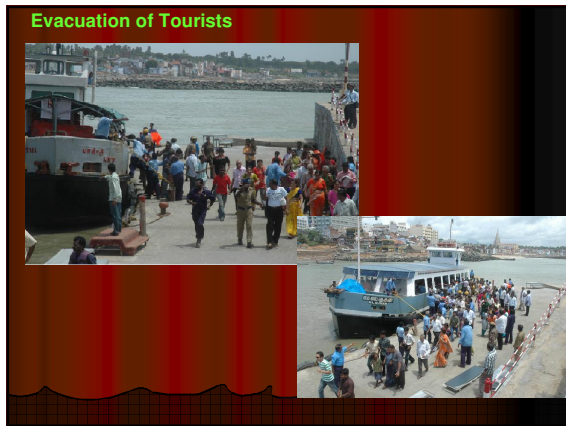


### Drill Summary

- Entire Drill completed within 55 minutes
- Fire & Rescue Dept., Hospital, Police, Poompuhar Shipping Corporation – Responders involved
- Total 760 tourists evacuated
- Six transport buses used
- Water bottles, biscuits and banana were provided to the tourists
- Collector visited the places such as VRM, Jetty, Hospital and Shelter at Railway
- Observers pointed out certain lacunas and other points for better evacuation in the debriefing meeting convened by DC at 1.30 pm

### Rescue Team





- ### Range of DM Services developed by NSC
- Training of Regulatory Agencies-
    - DISH Gujarat- Developed training module & manual and conducted training for senior officers on the request of GSDMA
    - Traffic Police-
      - ❖ Developed training module and conducted workshop on HAZMAT Response by Traffic Police
      - ❖ Conducted training on "First aid & Rescue of accident victims"
  - Training for Corporate Sector
 

Corporate Sector have key stake in ensuring development & implementation of effective DMplans & programmes to-

    - Protect own employees & assets
    - Part of CSR

Nsc designed & conducted Workshops on DM & conducting drills

- ### Range of DM Services developed by NSC
- Training of School Children including Evacuation
  - Development of Emergency Plans:
    - Off-site-Tuticorin, Haldia
    - On-site:Petrochemicals(5); Chemical(13), Agrochemical (2); Power Plant(7); Explosives(2); Engineering(3)
    - DM Plans for Co-op Soc; Office Bldg; Hotel
  - Observers for Drills
  - Develop & Conduct drill using the protocol
  - Community Awareness- Developed Strategy recognised in the NDMA Guidelines
  - Information Dissemination

