National Emergency and Disaster Management Organizational Activities

National Disaster Response Policy / Plan, Inspection and audit, National ESF agencies / ministries / departments, International Coordination, Inter-state coordination and implementation of Interstate Emergency Assistance Program (IEAP), information Coordination, Management of Regional Resource Centers (RERC), resource coordination, Establish and manage of National alert and warning center for 24*7*365 days operation, national disaster data base management, management of state disaster preparedness inspection and audits, Media Management, research and development.

National Emergency and Disaster Management Organizational Setup

Regional distribution or division becomes important looking to the length-breath, socio-economic and disasters diversities across the country. Distribution of resources in the form of regional resource center would enhance the responsiveness of national support during extreme incidents.

Decentralization need to be implemented in phases and the number and locations for RERC should be decided by trading-off “response efficiency” vs. “resource / inventory concentration”. Lesser number of RERC would and distance resulting into “reduced responsiveness” and too many may result into dilution of inventory and skill concentration.

Model proposes seven RERCs (refer figure 4 given below) Northern, Southern, Eastern, Western, Central, Coastal and Mountain regions and locate them at the strategically... Regional resources should be built as per the regional vulnerabilities and risk. Central region would also be responsible to supplement all other regional resource centers on the emergencies resulted due to “manmade disasters”, in addition to addressing to natural disasters vulnerabilities under central jurisdiction.
National level activities, during normal phase (no disaster or emergency alert), would constitute of - policy management, monitoring, alert and warning management, capacity building, preparedness inspection and audit. Management of Regional Resource Centers will also be a part of national level activities during all the times.

Director (NEOC), supported by the secretarial staff, would look after coordination and management of technical and operational activities through the country including management of RERC.

Director (National Alert and Warning center) with his technical support staff will manage 24*7*365 days functioning of alert and warning center. He/she would also be responsible...
for monitor and manage connectivity with - all national agencies (IMD, CWC, NRSA etc...), international agencies (NOAA etc), Media (TV, cable, radio) interfaces and the state alert and warning center.

**National Monitoring, Alert and Warning Center**

Majority of agencies involved in monitoring environmental and hazard data works under the national government. Indian Meteorological Department, Central Water Commission, National Remote Sensing Agency (NARSA), Geological Survey of India (GEI) are some of the important central agencies involved in monitoring and forecasting in their related fields. It is national government’s responsibility to establish, and manage National Monitoring, alerts and warnings center. National Monitoring, alert and warning center (NMAWC), would monitors potential disasters in the country and assists all states and union territories during pre and post disaster situation in mitigation, response and recovery.

National Monitoring, Alert and Warning Center (NMAWC) would work 24*7 and 365 days with dedicated officials and staff. NMAWC would receive inputs from major central agencies / Organisation (IMD, CWC, NARSA, ISRO and other international agencies (NOAA, Asia Pacific Disaster Warning Center) and would issue alerts and notifications as required to the local / state government as well as to the media (TV, Radio, Print...). Under the new national alert and warning system setup at national and state levels IMD and other agencies engaged in environmental monitoring activities would not need to install and manage alert dissemination system to individual state or other stakeholders (like IMD’s district cyclone warning dissemination system).

Direct-To-Home (DTH) satellite based TV broadcast system is working in India for last couple of years and is found very useful for inaccessible areas with difficult terrain. Prasar Bharti (Government of India organization) is major operator of DTH services in India. DHT offers an unimaginable opportunity for efficient, reliable and cost effective way for disseminating alert and warning through the country.

497
Proposed National Monitoring, Alert and Warning system will be complete and end-to-end, in all respect, with national and international monitoring and surveillance agencies at the input; data base, storage, analysis applications, and models at the middle; and alert and warning dissemination system at the output. The national agency would reserve four DTH channels (one for each south, north, east and west region) for emergency and disaster management. DTH uplink facility at NMAWC will enable instantaneous dissemination of any warning message (data, voice and video) to state administration as well as people in the remotest area. National Government, in collaboration with State Governments, will plan, design and augment DTH based alert and warning receiving network in strategically identified area, including coastal districts.

National Government and State Governments would, under Technology-Private-Public-Partnership model, sign an agreement with the Prasar Bharti (broadcasting agency in India) for implementing DTH based alert and warning network, creating a DTH resource inventory of DTH equipments (up-links and receiving sets) and managing deployment of resources during all phases of emergency and disaster management.

**Telecommunication backbone for national Network**

Leased lines (PSTN), Satellite Communication links, GSM/CDMA, DTH.

**Declaration of National Emergency**

In a typical hierarchical and bureaucratic system - the State Emergency Operation system gets activated with the occurrence of any disaster in the state. Field emergency operation center would be deployed and first information report on assessment would be send to DEOC for initiating necessary action for declaration of level of emergency. Central agency would get into action for assessment and evaluation damages before issuing national emergency notification. National Government is responsible to provide adequate, effective and spontaneous coordination and support to the local government.
during disaster situation and need to act faster so as to save lives, prevent human suffering, and mitigate sever damage.

Under the proposed model - center government would mobilize and deploying assets before they are requested via normal protocols and channels. Such advance actions would need modeling and simulation capabilities created of weather, storm surge, earthquake ground motion and shake intensity, toxic plume modeling, hazard prediction, and loss analysis. Culturally dependent models of population response would also be important for managing evacuations and other aspects of disaster management. The effective loss and damage assessment would do nothing in absence of effective and efficient resource response system. The central emergency resource repository would be an intelligent & ICT based inventory management system using radio-frequency identification (RFID) tagging, Global Positioning.

**Activities when national Emergency is in force** – Activating National Operation center (NEOC), Loss and damage assessment using simulation models, International Coordination, Inter-state coordination, information Coordination, Management of Regional Resource Centers (RERC), resource coordination, Media Management, Monitoring, alert and warning, responding to any special needs requested by the concerning state.

National Emergency Operation Center (NEOC) would get activated in full capacity with all ESF agencies present in NEOC, along with all sections of NEOC operational. ESF agencies shall evaluate dynamics of the situation based on the incident status and tracing system and act, concurrently, in consultation with the respective state ESF agency (like National health ministry with heath department in the state...). Director (NEOC), SEOC and DEOC would know the resource deployments, on line simultaneously.

Any one of these nodes can ask for changes or deviation, if required. Responsible RERC would get into the filed either during the alert phase or in post disaster (earthquake alerts may not be possible) phase and take charge of inter-state and national coordination. For
public information national emergency call center will get activated, as required, in addition to the information dissemination on national, regional and local media.

**Regional Emergency Resource Center (RERC)**

Disaster response is time sensitive as it involves safety of life and property. Effectiveness of emergency and disaster response will depend upon how quickly required resources can be coordinated, mobilized and deployed at the site of incident. National Government has planned to establish regional emergency resource centers (14 numbers) at the strategic locations so as the support can reach to the local government quickly. A RERC would cover multiple states (example covers RERC covering Gujarat, Maharastra and Rajasthan) under its jurisdiction and would be positioned so as can rush resources into the vulnerable areas quickly, under jurisdictions.

RERC would maintain and manage an inventory of resources depending on the hazards, vulnerability and risks of the area under its jurisdiction. RERC would also be responsible for helping member states on mitigational and preparedness program. Under the national policy RERC would undertake inspection and audit on disaster preparedness of each member states in periodic manner. RERC would also manage Interstate Emergence Assistance Program (IEAP) by connecting inter-state emergency resources to the incident site during emergencies.

Special inventory support, special skill support, coordination, mitigation, audit and inspection would be some of the major REREC activities. An optimum number of RERC would be created so as the inventory and skill support levels do no get diluted (which is evident in a highly distributed system with more number of REREC locations).

The proposed REREC model would have - Coastal RERC (two), RERC(West), RERC(East), RERC( N/E), RERC(South), RERC(Central). While basic objectives fro each REREC would remain same but the composition of skill set and inventory will change
according to area vulnerabilities (flood, earthquake, cyclone, chemical, or multi-hazard...) under the jurisdiction. With the basic principle of emergency management that the “locals are the first responder”, instead of creating many RERC national government would supplement and strengthen state RECs.

Figure 3: Interstate Emergency Assistance Program (IAEP)

Organisation

RERC would have minimum three sections (Operation, Logistics/Resource, and Management) under the control of Office-in-Charge of the center. Office in charge, a National government appointee would have administrative support staff for office management. Member states would be required to depute one state officer of the rank of Dy Collector under the terms and conditions of the agreement between national and state governments. Such deputation would last for two years and states would rotate official under the agreed policy. The state participation would enhance regional (language/culture
etc) capacity of RERC which are crucial during filed operation. Officer-in-charge RERC would report to Director (NEOC) for all purposes.

Organizational setup at RERC would remain same all the times.

Looking to the multi state jurisdiction of a RERC it would be advantageous to have a mixed human resource composition at the center. Local representatives would bring knowledge of local language, geography and administrative system with them, which would be extremely useful during RERC deployment.

Organizational setup at RERC would remain same all the times.

Figure 4: RERC Nation-Wide setup of Regional Emergency Resource center organization
State Government of Gujarat

Not only that the Gujarat is one of the highly vulnerable Indian state to various natural disasters, but also the exponential growth in infrastructures and economic activities their has made the state more susceptible to hazard events. The state emergency and disaster management system would be based on "management of risk through "identification and analysis". The state hazard management cell would be responsible for drawing and updating a complete picture of state's multi-hazard risks which will assist in developing coordinated strategies for total risk management leveraging modern technology.

The state would have a "unified single window organization" for management of emergencies and disasters. Inherent flexibility of GSDMA's structure would allow spontaneous "organizational expansion" to integrate revenue hierarchies along with emergency support function (ESF) agencies during extreme incident. The organization would return to its permanent shape once the situation gets normalized. Both processes (Integration and separation) would be gradual on time scale and linear in nature.

Basic features of the emergency and disaster management system in Gujarat state would include –

- Unified single window agency for emergency and disaster management in the state;
- Focus on hazard vulnerability and risk assessment data base and development of "Intelligent Decision Support System".
- State Wide Hazard Monitoring and Measurement Network (for chemical, flood, earthquake, cyclone conditions etc...) connecting all sensors to the State Monitoring, Alert and Warning center (SMAWC).
- Use of the unified web based "disaster response information network" for information and resource coordination.
• Mandatory compliance for all stakeholders to Gujarat State Standard Emergency Management System
• Operation and management of emergency and disaster through Regional Resource centers (REC), DEOC and FEOC.
• Special cadre of human resources with provision of HR redundancies.
• Sharing of emergency response resources through mutual-aid program (within and inter-state)
• Mandatory role of hazardous industries in pre- and post disaster response and management.
• PPP/TPPP model for establishing and managing emergency resource reserves, specifically in the areas of telecommunication, broadcasting and other lifeline services.
• Mandatory program for safety at school (public and private) and safety at work (Government/undertakings/Industries)
• Samaaj to lead the community preparedness program.
• Government to help NGOs to acquire specialized skill sets and resources required for responding to flood, earthquake etc...for making their participation more effective
• Inspection and audit of disaster preparedness.

GSDMA’s permanent Organisation setup (figure given below) will comprise of – CEO, an additional CEO, joint CEOs, functional departmental heads, Head of State emergency operation center, State Monitoring, alert and warning center officials, regional emergency managers, and district emergency managers. The listed domain department (all ESF) would get into the system and integrate with the operations, spontaneously, during disaster situation.
GSDMA'S RESOURCES

SEOC would coordinate “knowledge, resources and activities” during pre and post disaster situation using “Unified Emergency Response Information Management System (UERIMS)” with spatial data base, data analysis capability and normative models.

- Two hundred sixty fire engines (10 per REC) stationed with the fire stations at strategic locations throughout state that can dispatched when needed.

- Remotely managed, Automatic weather station network monitoring various parameters in the catchment and command of major water ways / reservoirs.

- State Monitoring, Alert and warning center working 24*7
GSM MOBILE STATION TO BE DEVELOPED BY THE SERVICE PROVIDERS IN THE STATE UNDER T-P-P-P ARRANGEMENTS AT RAJKOT, VADODRA AND BHUJ

Figure 6: Portable GSM cellular service terminal
• Alert and warning network (comprising of remotely managed, voice message electronic siren system and DTH) covering whole coastal area including coastal salt producing fields
• District Emergency Manager (DEM) in each district will manager DEOC
• Regional Emergency Manager (five regions) with support staff
• DEOC in each district with 20 seat emergency call center and emergency management facility.
• SEOC Staffs who are on call 24 hours a day to respond to any state or local emergency needs.
• Portable cellular base transmission stations (BTS) – three
• Radio communication equipments -
  o Base stations (50),
  o Repeater Stations (20),
  o Handheld (500)

State Establishment

Telecommunication backbone - Satellite Communication links, Gujarat State Wide Area Network (GSWAN), GSM, DTH, Radio (Wireless).

Organizational Setup (Normal situation)

Activities
State Disaster Response Policy / Plan, Intra-state coordination, information Coordination, Resource coordination and management, Monitoring, alert and warning, State disaster data base updating and management, preparedness inspection and audits, Media Management.
Operation
State level activities, during normal phase (no disaster or emergency alert), would constitute of - policy management, monitoring, alert and warning management, capacity building, preparedness inspection and audit.

Director (SEOC), supported by the secretarial staff, would look after coordination and management of Policy management, technical and operational activities through the state including management of ERC. Each DEOC would be managed by District Emergency Manager (DEM), who will always be in touch with Director (SEOC).

Officer-In-Charge (State Monitoring Alert and Warning center - SMAWC) with his technical support staff will manage 24*7*365 days functioning of alert and warning center. He/she would also be responsible for monitor, analyzing various parameters from all hazardous locations within the state, including rain fall, water level, and water flow in major rivers, dams and canals. The SMAWC would have a direct interface with National Monitoring, Alert and Warning center (NMAWC) and would issue alerts and warning to all stakeholders, as required.

Organizational Setup (SAD)

Activities
Activation of State Operation center (SEOC) to support incident management, mass messaging, National / International Coordination, Inter-state coordination through Regional Emergency Resource Center information Coordination, resource coordination and management, Media Management using Public Information Office (PIO), Monitoring, alert and warning on based on the evolving emergency dynamics, establishing interface with subject experts for decision support, responding to any special needs requested by the concerning state.

Operation
State Emergency Operation Center (SEOC) would get activated in full capacity with all state ESF agencies present in SEOC, along with all sections of SEOC operational. State ESF agencies shall evaluate dynamics of the situation based on the incident status and tracing system and act, concurrently, in consultation with the respective District offices (like state health department with district health department ...). Director (SEOC), DEOC and LEOC (Location emergency Operation center) would monitor and manage resource deployments through web based incident management application, simultaneously. Any one of these nodes can ask / suggest for changes or deviation in deployment, if required. Responsible RERC would get into the filed either during the alert phase or in post disaster (earthquake alerts may not be possible) phase and take charge of inter-state and national coordination. State PIO and emergency call center would be responsible for public information dissemination and media briefing.

Office-in-charge (State Monitoring, Alert and Warning center) with his technical support staff continues to manage 24*7*365 days functioning of alert and warning center. He/she would also be responsible for monitor and manage connectivity with – all hazard sensors deployed through the state along with a direct interface with National Monitoring, alert and warning center (NMAWC).

**District Establishment**

**Situation before Disaster (all the times)**

*Activities* – Development and management of Emergency Action Plan (EAP) under state policy guidelines, Mitigation and preparedness management in the district, Hazard monitoring and management, School and industry safety plan implementation, alert and warning in pre-disaster phase, information Coordination, Resource coordination and management, District disaster data base updating and management, preparedness inspection and audits, Media Management.
District Emergency Manager (DEM) would be responsible for maintaining the DEOC during “no emergency period”. The scope of work for DEM would include up-keeping, operation and maintenance of all tangible / intangible emergency management resources in DEOC. DEM would also assist District Collector (DC), who is overall in-charge of district disaster management Organisation, in various day-to-day activities. District collector, through various committees, monitors and manages districts hazards, vulnerabilities and risks. District Vulnerability Management Committee (DVMC) and District mitigation and preparedness committees (DMPC) would be the two important committees directly supervised by the District collector. DEM would be responsible for preparedness inspection and audit work under the jurisdiction. DC’s office would also interface with the media, as required.

**Situation after Disaster (SAD)**

**Activities**

Activation of DEOC and Emergency Response Plan (ERP), Incident Management, Information and Resource coordination with neighbouring districts, SEOC, RERC, Monitoring and reporting evolving conditions in the aftermath of disaster to SEOC, issue alert and warning, PIO and media management
Figure 7: Information and Resource management in SAD

Operation
District Emergency Manager (DEM) would keep every thing in readiness during the pre-disaster (when alert has been issued) period and run a test on all DEOC equipments and submit status report to DC and SEOC. DEOC gets activated once the emergency has been announced, but District Collector, if desire so, may also announce activation of the DEOC in pre-disaster phase. All district level officials connected with state ESF departments (Health, R&B, education, etc.) would station themselves in the DEOC for coordination and management of required resources, as soon as DEOC is activated. DC would act as incident commander but may designate another appropriate official as incident commander depending upon the situation. DC or the designated incident commander would be responsible for reporting incident status from time to time on to the web-based state emergency response information management system. Such information will be accessible for all stakeholders at local, district, state and national level facilitating concurrent efforts.
Telecommunication backbone for State Network

GSWAN, Leased lines (PSTN), Satellite Communication links including INMARSAT, GSM/CDMA, DTH.

State Regional Emergency Center (REC)

Disaster response is time sensitive as it involves safety of life and property. Effectiveness of emergency and disaster response will depend upon how quickly required resources can be coordinated, mobilized and deployed at the site of incident. State Government would have regional emergency centers at the strategic locations so as the support can rush to the location of incident quickly. A REC would cover 3-5 districts under its jurisdiction and would be positioned so response time is optimal in rushing resources into the location of incident.

REC would maintain and manage inventory of critical resources, including mobile communication and command station and along with skilled technicians for deployment, operation and management of various equipments. REC would be responsible for helping member districts on mitigational and preparedness program, critical equipment operation and maintenance. REC would also help DEM in undertaking inspection and audit on disaster preparedness of each member district in periodic manner. REC would also coordinate with RERC during emergencies for resource mobilization and management.

Organisation

REC would function under REM (regional emergency manager) with other staff for management, installation, commissioning, operation and management of various equipments and accessories needed for incident communication and command post. Organisation setup at REC would remain same all the times. The Head the REC (an office of rank of Dy Collector) will have a Mamlatdar and two secretarial staff for
general management. Technical activities shall be supported by two emergency managers (technical) in each REC.

Effective and efficient resource coordination at the incident location is the most critical requirement during and in the aftermath of any extreme incident. The regional emergency centers (REC) would be strategically designed and deployed so as the “response time” is minimized. REC would have resources inventories and skill sets commensurating and appropriate to the vulnerability profile of surrounding districts.

![Diagram of Regional Emergency Center](image)

**Figure 8: Regional Emergency Center**

State would have five characterized RECs as - “Kutch (Earthquake), Rajkot (Multi-hazard) Vadodara (Multi-hazard), Bharuch (Chemical), Junaragh (Cyclone/Tsunami) and Ahmedabad (Multi-hazard)”
Gujarat State School Emergency Preparedness and Safety Plan (1 – 12 standards)

The school safety plan should be designed to provide a framework for protecting students, staff and school facilities as well as describe the responsibilities of staff members, for a whole range of emergency and disaster situations that may occur. There should be a legal requirement under the Gujarat state law to prepare and implement school, safety plan in compliance with the guidelines issued. The plan should be prepared in coordination with – State education department, parents, Gujarat Disaster Management Authority, Municipal Corporation and other stakeholders.

In the extreme incidents like massive earthquake (like Bhuj earthquake), it is recognized that the available Government resources will be over stressed and may be unable to respond to all requests for assistance. This plan assumes that the school must be self-sufficient for a time and may be required to provide shelter to the immediate community.

School Emergency Preparedness and Safety Plan

- State Government to enact legislative provision for “School safety Code”.
- GSDMA in consultation with the state education department to issue “School Emergency preparedness and Safety Plan” guidelines under the school safety code.
- Principal of each school (Public or private), with a capacity of 50 students or more, in each district to formulate and submit plan to the DEO for approval. Each shall plan shall satisfy the state government guidelines and school safety code and would be audited and reviewed at least annually and be kept current.
- Each school shall test its plan (other than drills) or each portion thereof on rotation basis at least two times during the school year and keep the record of such tests.
Training, Drills and Exercises

Training program would be designed and delivered in collaboration with civil safety agencies and NGOs, on the vulnerabilities specified under the procedure laid down by GSDMA or as per the safety code.

The safety plan should include, at least –

• Bomb threat
• Chemical accident
• Earthquake
• Fire
• Severe windstorm or cyclone
• Sudden flood

Emergency
Principal of the school shall hold emergency drills at least once in two months in all primary schools and at least twice each year in all high schools, or as defined under the state school safety code.

Such drills will include –

• Rapid evacuation
• Teachers to select emergency exit routes and direct all classes on that. Teachers to plan alternate exit route in case the designed escape route is blocked.
• Students to recognize different emergency calls (siren or announcements) and act as directed by the teacher
• Call emergency telephone number
• Teachers to take student roll call after evacuation and report on missing students

School safety plan would also include maintenance and management of inventory of resources for emergency situation as prescribed by the GSDMA from time to time.
Public office emergency preparedness and Safety Plan

The office safety plan should be designed to provide a framework for protecting staff, officials as well as describe the responsibilities of staff members, for a whole range of emergency and disaster situations that may occur. There should be a legal requirement under the Gujarat state law to prepare and implement safety plan in all Public offices (Government / undertakings) in compliance with the appropriate guidelines. The plan should be prepared in coordination with – respective department / ministry, employees, Gujarat Disaster Management Authority, and other stakeholders.

In the extreme incidents like massive earthquake (like Bhuj earthquake), it is recognized that the available Government resources will be over stressed and may be unable to respond to all request for assistance. This plan assumes that the public office must be self-sufficient for a time and may be required to provide shelter to the immediate community.

Public/ Private office Emergency Preparedness and Safety Plan

- State Government to enact legislative provision for “Public office safety Code”.
- GSDMA in consultation with the GSD will issue “Public Office Emergency preparedness and Safety Plan” guide lines under the state safety code.
- Head of the department at state HQ and Head of the offices at District HQ would formulate and submit plan to their respective reporting officers such plans for approval. Each shall plan shall satisfy the state government guidelines and code and would be audited and reviewed at least annually and be kept current.
- Each Public office shall test its plan (other than drills) or each portion thereof on rotation basis at least two times during a year and keep the record of such tests.
**Training, Drills and Exercises**

Training program would be designed and delivered in collaboration with civil safety agencies and NGOs, on the vulnerabilities specified under the procedure specified by GSDMA or as per the safety code.

The safety plan should include, at least –

- Bomb threat
- Chemical accident
- Earthquake
- Fire
- Severe windstorm or cyclone
- Sudden flood

Head of the department/office shall hold emergency drills at least twice each year in their offices, or as defined under the safety code.

**Such drills will include** –

- Rapid evacuation
- HoD to select emergency exit routes and direct all classes on that. HoD to plan alternate exit route in case the designed escape route is blocked.
- Employees to recognize different emergency call (siren or announcements) and act as directed by the HoD / supervisor
- Call emergency telephone number
- HOD/ Supervisor to take employees roll call after evacuation and report on missing personnel

Public office safety plan would also include maintenance and management of inventory of resources for emergency situation as prescribed by the GSDMA from time to time.
Personal / Home Preparedness of Employee

An employee’s personal at home is an essential component in his/her overall emergency readiness. State Government would initiate, region specific custom designed TV/Radio program for personal / home preparedness in the state. In addition, Religious sects (Swaminarayan or BAPS, Gayatri Pariwar etc..) along with, Samaj or community groups (Patel, Koli, Luana etc..), students and employees would also work as “catalyst and carrier” for enhancing level of home preparedness in Gujarat state. Religious sects and communities would undergo specific state’s capacity building initiatives and programs and in turn would induce preparedness education to their members. The school and employee’s Emergency preparedness and safety plan would also help in bringing home preparedness. Following suggestions will help employees to become fully prepared.

Planning

- At least once in a year, have a meeting with family members or housemates to design and or update a plan how each person will respond during an emergency
- Draw a floor plan of your home, showing the location of exits window and doors, utility cutoffs, first aid kits, emergency supplies, tools, clothing etc make sure that each person is familiar with the plan
- Discuss alternate reunion locations and strategies if a disaster strikes when your not home.
- Become familiar with the disaster policies and plans at your children’s schools and your spouse or housemates’ workplace.
- Make sure to update a list of key addresses and phone numbers and ensure that each family member has a copy, remember to caution everyone that the phone should only be used during an emergency or there is a pressing need to contact the police, the fire department, emergency medical personal, utility companies, children schools etc.
Training

- Make sure that each person knows and practices ways of protecting himself/herself from falling objects, smoke, fire, caustic fumes etc.
- Make sure that each person knows and practices how to shut off water and electricity from the main inlet.

Home Safety

- Secure items such as the water heater refrigerator book shelves and other tall and heavy furniture that could fall and cause damage or injury during a disaster.
- If necessary change the placement of furniture and household items to make the home environment safer for exit.
- Install clips latches or other locking devices on cabinet doors
- Provide strong support and flexible connections on gas appliances
- Make sure that everyone has a flashlight and sturdy shoes near the bed

Emergency supplies and equipment

It is recommend that the home be equipped with the following emergency supplies and equipment try to save in place that will be accessible even if there should be structural damage to the home in an outside garage.

- Potable Water two quart to 1 gallon per person per day
- First aid kits with instructions
- Blankets
- Portable radio with spare batteries
- Critical medication and glasses
- Fire extinguisher
- Flashlight with spare batteries and bulb
• Watch or clock battery or spring wound
• Sanitation supplies soap plastic tissue containers
• Rope and plastic tape
• Candles matches

**NGOs Preparedness and Participation**

Self-deployment is dangerous and at the same time in immediate situation after disaster (SAD), domain managers has no time to talk to NGOs and assist them for deployment in the affected area. GSDMA would initiate capacity building program for local and regional NGOs through specialized trainings and exercises on area specific vulnerabilities (earthquake, flood, chemical etc...). Local Samaj (different caste in community) and religious agencies, with the stronghold in the identified risk zones, would be motivated to participate and involve into mitigational and preparedness efforts of the state. Appropriate registration of such agencies would be made certifying their capabilities in responding to various emergencies. The registered NGOs would form a part of “reserve emergency resource” enhancing state’s capacity to respond. State Government would assist registered NGOs in their capacity building on continuous basis. NGOs stationed in the vulnerable area would also be allocated critical emergency resources under the agreement between two agencies. NGOs, trained to respond different emergencies (flood, earthquake, cyclone...) would not only enhance Gujarat state’s capacity to respond to any emergency but also enhance national response capacity.