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## **Distribution of Equipments**



Availability of advance equipments/vehicles at local level is a key to minimize the losses after any disaster. GSDMA has procured 123 units of Motorcycle mounted Water Mist & CAF Fire Fighting System and 8 units of Mini Fire Tenders and distributed amongst various Municipal Corporations, Municipalities, District Collectorate and Gram Panchayat of Gujarat. The distribution of these equipments has been done in the presence of Smt. Anandiben Patel, Hon'ble Minister, Revenue & Disaster Management.



# **Training on CAMEO Software, Bharuch**



Bharuch district is comprised of various small and large scale chemical and petrochemical industries that make the district vulnerable to chemical hazards. In the limelight of this fact, a training program on Industrial and oil pipeline safety including CAMEO software was organized for Ankleswar, Panoli and Jhagadia Industries safety officers. Placing accurate, timely information in the hands of decision makers is vital for a safe and effective response to a chemical incident. The CAMEO (Computer-Aided Management of Emergency Operations) software suite has three core programs: CAMEO, ALOHA and MARPLOT. it is designed to assist the first responders and emergency planners to get key information quickly. The safety officers were trained on this software which enables them to get information on location of hazardous chemicals, route of flow of toxic fumes, type of chemicals, inventory of

chemicals, resources available at nearby emergency site, nearby population area that may be affected due to chemical dispersion etc. It makes them prepare for any type of chemical emergencies.

#### Awareness Program on Oil Pipeline Safety for Bhadbhut Villagers, Bharuch

Public awareness programmes and community participation are an important component for ensuring pipeline safety. People living in the proximity of oil and gas pipelines are highly vulnerable to various hazards. Pipeline safety is a serious issue and becomes challenging during rainy seasons, that is evident from the flood in Narmada river which caused damage to the oil

pipeline. Considering this, an awareness program has been organized in Bhadbhut village of Bharuch in collaboration with Reliance Gas Transportation Infrastructure Limited (RGTIL) on 8th January 2014. Since, pipeline safety is a shared responsibility, the awareness program was attended by villagers, police officials, representatives from health department, Aganwadi workers etc. Participants of the training program have been guided on various precautionary measures that should be taken during any sort of oil pipeline emergencies. The need of community



participation in pipeline safety has been strengthened in this program. The General Manager, RGTIL also guided the people about the various Do's and Don'ts for oil and pipeline safety.

# **Cyclone Preparedness and Response Plan**



For efficient and coordinated management of cyclones, it is vital to evolve a comprehensive disaster management plan at the state level. Gujarat State Disaster Management Authority has prepared a Cyclone Preparedness and Response Plan- 2014, which will serve as model for different authorities in preparing their departmental cyclone disaster management plans. This plan provides roles and responsibility of various stakeholders in various facets of disaster management.

# **FLOOD MANAGEMENT**

# **Best Practices in Flood Response - 2013**

Gujarat State experienced flood in the year 2013. There were two spells of flood season observed - one in the month of August and second spell in the last week of September. The most affected districts include Rajkot, Bharuch, Vadodara, Porbandar, Surat, and Jamnagar. The magnitude of flood in each of the districts was different and the District Administration, with support of Disaster Risk Management Program of GSDMA managed the flood effectively.

GSDMA conducts awareness generation, capacity-building and disaster management planning activities in each district in coordination with the District Administration through its Disaster Risk Management (DRM) Programme. A District Project Officer (DPO) is appointed in each district, who provides support and enables coordination for conducting these activities. The DPO also liaisons with all the government and non-government agencies for conducting preparedness activities. As a part of the DRM programme disaster management plans are prepared for all District, Cities, Talukas, and Villages. Moreover, trainings are given at regular intervals on First Aid, Search and Rescue and Fire Safety to relevant stakeholders. Also a state-wide resource inventory is maintained through State Disaster Resource Network (SDRN). SDRN is a web-based comprehensive database of Disaster Management related inventory (resources available, vulnerabilities, emergency contacts, disaster history, and hazard profile) comprising resource information from village to state level. There is also a District Emergency Operation Centre (DEOC) in all the districts that provides inter-departmental coordination at the time of emergencies.

Overall, it was found that the training and capacity building activities conducted at district level had helped in the response to flood. The trained persons had participated in response activity in various districts. Moreover, the evacuation shelters identified in the Disaster Management Plans were also used for evacuating flood affected people. The SDRN network played a vital role in locating resources and contacting the concerned persons at all levels.

The best practices followed by District Administration in response is highlighted as under -

#### • Rajkot:

Rajkot received 1037 mm rainfall till Sep 2013 (nearly 385mm in between 22-26th September 2013,) which was more than the average rainfall (737 mm) received by the district by 140.77%. This resulted in flooding in the district. In order to ensure that minimum loss of life was caused a **Mobile Alert System namely Disaster Alert and Resource Management Application and Technology (DARMT)** was used for issuing early warning communication to the communities vulnerable to the flooding. This enabled the timely evacuation of villages. DARMT is a communication system developed for the circulation of the early warning message to the various government / non-government stakeholders and the vulnerable communities. It is an android based mobile application system developed by Rajkot Collector with cooperation and support of BISAG. Through this system, the operator can select the dam and the amount of water which is expected to be discharged from this dam. The inbuilt database in the system enables the creation of the list of villages which will be affected due to release of

a specific quantity of water from the dam. The information of representatives (including Sarpanch, Anganwadi Worker, Paramedical staff, and School Principal etc) from each village is also maintained in the database, and by using this contact information, an alert message is sent to each village likely to be affected. In this manner, the alert information as well as instruction for evacuation was given to the affected communities in quick time. Due to DARMT System and effective coordination amongst stakeholders of Rajkot District Administration, the response activities were carried out in timely manner and many lives were saved.

#### • Bharuch:

The Central Water Commission (CWC) had alerted Tapi Division on 23rd August 2013, 10:30 am about the increasing level of water at Golden Bridge and it was expected that this level would go upto 9.7 meters (i.e., approximately 32 ft.) by 5:00 pm due to heavy rainfall in the region and upper catchment areas. Collector of the District called for a meeting immediately and discussed the action points to be taken by departments; subsequently evacuation process was taken up in the low lying vulnerable areas which included Dandiya Bajar, Bamaniy Ovara and Golden Bridge in Bharuch and affected areas of Ankleshwar Taluka among other places. **The District Collector personally visited all the affected areas and also observed the relief activities that were conducted in these places. The involvement of the District Collector in all the activities, right from planning to implementation is one of the key elements that led to effective response to flood.** 

Considering the increasing level of flood in the district, 5 flood rescue teams were demanded from Surat Maha Nagarpalika and 4 teams from Ahmedabad Nagar Palika. In addition to this, the rescue operations were conducted by the NDRF and SRP. *Thus, there was an effective inter-district coordination.* There was coordination and proper channelization of the food packets / kits received from various sources – administration, voluntary organizations, MLA, community leaders, industrial establishments etc. *The quality of food received from various sources was checked by the Food and Drugs department before distribution to community members, which helped in checking the spread of food-borne disease.* The District Collector had specifically emphasized and focused on making the availability for chlorinated drinking water, proper sanitation facilities, and proper Shelter facilities, drinking water facilities for cattle and veterinary care facility.

As per the Gujarat State Disaster Management Act 2003, the District Collector has been given the power to issue directions to the officers of the departments of Government and the local authority in the areas likely to be affected by natural disasters. Collector may control and restrict the entry into, movement within and departure from any disaster area or part of it. As the water level at Golden Bridge was increasing considerably, a meeting was held with the Road and Building Department (National highway authority) and DSP, and later a decision was taken on 26th August 2013 by the Collector to stop the communication linkage through this bridge so as to ensure safety. The transport on this bridge was allowed only after the situation was found to be safe. This decision was taken in order to avoid any adverse situation.

Bharuch District also faced recurrent floods in the month of September 2013; where in a total rainfall of 458.75 mm was received (from 22nd to 25th September). During this spell of rainfall, *there was a breakage in the pipelines of Reliance and GAIL on 26th September 2013 near Bhadbhut area.* As per the Gujarat State Disaster Management Act 2003, the Collector is given the powers to issue directions to any person or government agency and take such other steps, as may be necessary to curtail the escalation of the disaster or to alleviate, contain or minimize the effects of disaster. Pipelines of various companies were passing through Bhadbhut area, Narmada River. Using the provisions of the GSDMA Act-2003, the pipelines of all the companies were shut down which helped in ensuring that similar damage to other pipelines was prevented.

#### • Vadodara:

Vadodara received heavy rainfall in the month of September (22th to 26th September 2013) in all its Talukas causing flood situation. Of these, Karjan (784 mm), Kanvat (805 mm), Sankheda (695 mm) received maximum rainfall. The District Collector and District Superintendent of Police received the information about people stranded in flood water on the terrace of a house in one of the villages of Karjan Taluka on 24th Septeber 2013, at 9.30 pm. The Divisional Officer of Karjan Taluka and his team immediately reached the village and started assessing situation so that necessary resources could be mobilized from district headquarters and informed the need for experts to conduct rescue operations to the District Emergency Operation Centre (DEOC). DEOC immediately sent the information and deployed the trained Swimmers from Montors Nauka Talim Kendra, Sinor to incident site for rescue operation. Deployment of a team of representatives from Police department, with Superintendent of Police was also done through DEOC in order to overlook the rescue operation and provide necessary support at the place of incident. The District Collector visited the affected areas and inspected the rescue activities being conducted there. Incidents of community members getting trapped in flood water were reported from various villages, and NDRF teams were deployed for rescue operation by DEOC. The rescue operation lasted till 5 am and all the affected people were rescued; in absence of this rescue activity,

the stranded people would have drowned in water due to increase in the water levels.

An incident was reported wherein some community members were trapped near the railway line at 6 am on 25th September 2013. Of these community members, 4 members were physically challenged and they had sought to go near railway line crossing, so as to save themselves from flood. For rescue of these members, the DEOC coordinated with the ADRM branch of the Western Railway unit and planned to give a halt to first train passing through the area and rescue these people by accommodating them in the train. This rescue was effectively conducted with the coordination of Railway Authority by 7.30 am.

#### • Porbandar:

Porbandar faced severe floods due to heavy rainfall in the upper catchment areas comprising of Rajkot and Junagadh, which lead to the water-logging in Ghed area of Probandar District in the month of September 2013 (22nd September to 2nd October 2013). A total of 138000 cusec water was released from Bhadar dam. Due to this, 11 villages across 2 Talukas (Kutiyana and Probandar) were severely affected, and 934 families were evacuated. The relief operation was community driven, the provision for drinking water and food was made by the community leaders themselves. The medical response was provided by regional medical staff and ASHA Workers who were trained to provide First Aid to community members. The local needs were communicated to the District Health Department through the local community members. Based on this, resources were mobilized in vulnerable villages. Rescue of people trapped in the flood water was also done by the local fishermen in a few villages using their boats and their skills of rescue.

There were various rescue teams that participated in the rescue activities like the Coast guard team, Fire Brigade Team, Nagarpalika Team, Mamlatdar Staff, Tauka Panchayat Staff and Police Station Team were involved. The Nagarpalika Fire Brigade staff used boats provided by GSDMA to evacuate people and helicopters were also used by Coast Guard members for conducting rescue of people trapped in highly flood affected areas. Rescue activities were mainly conducted on 26–27th September 2013.

In this manner, rescue operations saw a mix of community's own capacity supported by the specialized support of the district administration also. This made the rescue operation community centered as well as effective.

#### • Surat:

Surat received 2172.09 mm rainfall in the monsoon-2013 which was 1244.6 mm more than the rainfall received by it in the previous year. Both, the rural and urban areas were affected by the resulting flood situation. High rainfall in the district coupled with high rainfall in the upper catchment area of Tapi river lead to an alarming increase in the water levels of the river and as much as 4, 38,348 cusecs of water was released from Ukai dam during 22nd Sep 2013 to 24th Sep 2013 and the flood gates of drainage lines were closed in order to maintain the water level. Forecasting the rise in the rainfall in upper catchment area and in the district, a timely decision of releasing water from Ukai Dam was taken which led to controlling river water levels and preventing massive flooding. The water logging observed in the city was caused due to temporary shutdown of river gates to control the river water levels, which subsided shortly after the flood gates were open.

#### Installation of Automated Weather System and Radar Based Water Level Sensor, Bharuch

Early Warning Systems help to avoid or reduce the impact of hazards as greater the time, communities have to prepare, the greater the savings in human life, household assets, livestock and stored provisions can be done. Automated Weather System and Radar based water level sensor provides comprehensive up gradation of preparedness measure undertaken by District Administration, Bharuch for early warning system and real-time meteorological observations. The system has the ability to gather real-time observations of specific parameters, such as precipitation, evapotranspiration, temperature, wind direction, wind speed and rainfall etc. One can set trigger levels for these parameters and as soon as these trigger levels are breached, automatic SMS can be sent to a pre decided list of people, informing them about the possibility of a natural disaster. This is a lowest energy consumption system that can run for days without the need of charging, hence, provide a useful mechanism for early warnings of hydrometeorological disasters.

#### **Mobile Application for Disaster Management, Surat**

#### GSDMA SURAT.in

District Administration Surat has created a mobile application named GSDMASURAT.IN. The main purpose of this application is to identify the quantum of resources and necessary information which will be useful for responding emergencies. In this manner, this application is expected to be useful to the district administration at the time of emergency.

This mobile application contains i) contact details of Talati, Sarpanch, Village Task Force Committee members ii) Information about rescue equipments available at Taluka level. iii) Details of evacuation sites. This application also includes the rainfall data of monsoon, date-wise details of water level in dam, along with the rainfall data of last 10 years. In addition to this, the contact information of trained personnel, as well as available and functional equipments with their location, capacity and its source is also available in the mobile application.

#### Disaster Alert and Resource Management by Application of Technology (DARMAT), Bharuch

The large-scale DDMP updation exercise being carried out in Bharuch is a way to improve its preparedness measures. One of the most important parts of this updation exercise is the building of a GIS-based databank, which reflects the key vulnerabilities and resources of the district in a layered and multi-tiered format, and develops an SMS-based early warning system at the same time. Technology partner BISAG

(Bhaskaracharya Institute for Space Applications and Geo-informatics) is instrumental in developing a software program called DARMAT (Disaster Alert and Resource Management by Application of Technology) as it has previously done in Rajkot district.

The software is a query-based platform, and one can enter the water level in a drop-down menu, and obtain the areas flooded and vulnerable villages as highlighted on a map. These areas are identified according to proximity with the river and vulnerability to flooding and this allows the District Administration to reduce delays in response and planning. Alongside, additional layers highlight the relief shelters, schools, hospitals, Primary Health Centers and other vital installations falling within these areas or in safe regions, allowing District Administration to formulate strategies for evacuation and relief well in time.

Disaster Alert and Resource Management by Application of Technology(Bharuch District)				
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#### **AN ORIENTATION PROGRAMME ON DISASTER MANAGEMENT**

A group of students of Master of Nursing, Nursing College, Civil Hospital, Gandhinagar has visited GSDMA for getting an orientation on disaster management on February 14th, 2014. The students aim to know about disaster management, role of doctors and nurses during and after disaster strikes. Sector Managers Isha Popat and Komal Kantariya have oriented to the students about concept and different terms used in disaster management, preparedness & mitigation measures and role of the Medical and Para medical staff during and after the disaster.



### **OPINION OF PARTICIPANTS FROM THE DISTRICTS**

દરેક બાળકોને અઞ્નિશામકની માફિતી પ્રાપ્ત થાય તે ફેતુથી આજના દિવસે અમારી શાળામાં પણ અગ્નિશામક છે તો તેનો ઉપયોગ કરતા ધોરણ-૮ ના બાળકોને આવડે તે ફેતુથી આ બાળકોને શ્રી મિફિરસાફેબે તેના ઉપયોગો ,તેનું મહત્વ અને તેમાં રફેલા વાયુઓની સમજ બાળકોને આપી હતી .બધાજ બાળકો પાસે પ્રેક્ટીકલી તેમનોઉપયોગ કરાવ્યો હતો અનેધણા બધા બાળકોએ જાતેજ આગને ઓલવી હતી અને બાળકોએ પ્રત્યક્ષ ઉપયોગ કરાવ્યો હતો અને શાળામાં અથવા બીજીજગ્યાએ આગ લાગી હોય ત્યારે અગ્નિશામકનો ઉપયોગ કઈ રીતે કરવો અને આગ પર કઈ રીતે કાબુ મેળવવો તમેની પુરેપુરી સમજ મેળવી હતી. આયાર્થ ,શ્રી દેવલપુર પ્રાથમીક શાળા ,તા .કોડીનાર ,જી .જૂનાગઢ

જીલ્લાનીપ્રાથમિક શાળાઓમાંથી શિક્ષકોને આપત્તિ વ્યવસ્થાપન ,આગ સલામતી તથા ફાયર એક્સટીન્ગુઇશેરના ઉપયોગ અંગેની પ્રેક્ટીકલસમજ સાથે તાલુકા મથકો પર તાલીમોનું અસરકારક રીતે આયોજન કરી આપત્તિ વ્યવાસ્તાપનની દિશામાં સામુહિક સજ્જતા કેળવવાનો પ્રયત્ન હાથ ધરવામાં આવ્યો છે .આ નવીન અભીગમયુક્ત તાલિક જીએસડીએમએ દ્વારા અમલી બનેલ આફત જોખમ વ્યસ્થાપન કાર્યક્રમ હેઠળ ડીસ્ટ્રીકટ ઈમરજન્સી ઓપરેશન સેન્ટર ,કલેક્ટર કચેરી પાટણ અને જીલ્લા શિક્ષણ અને તાલીમ ભવનના સંયુક્ત ઉપક્રમે આપવામાં આવી છે જે ખુબ ઉપયોગી થશે .અગામી દિવસો દરમ્યાન શિક્ષકોને આપત્તિ વ્યવસ્થાપન વિષયે તાલીમબદ્ધ કરી આફત સામે પુર્વતૈયારીનો વિયાર ગ્રાસરૂટ સુધી પહોચાડવાનું આયોજન વિયાર હેઠળ છે .આ પ્રકારની તાલીમથી શિક્ષકોમાં આત્મવિક્ષાસ વધે છે અને જરૂરિયાત સમયે પ્રતિસાદ પ્રક્રિયામાં ધટાડો કરી શકાય છે .

આશા છે કે આ દ્વારા આગામી દિવસોમાં "આપત્તિ સામે સજ્જતા કેળવાશે અને આફત જોખમ મુક્ત શાળાઓનું નિર્માણ થશે"

આચાર્ચ, જીલ્લા શીક્ષણ અને તાલીમ ભવન ,પાટણ (૨૮/૦૩/૨૦૧૪)

# **GUJARAT INSTITUTE OF DISASTER MANAGEMENT**

# **Trainings organized**

#### The following training had been organized in GIDM from January-2014 to March-2014

S.No.	TRAINING PROGRAMS	VENUE	FROM	то	PARTICIPANTS	
JANUARY, 2014						
1	Earthquake Mitigation and Management	GIDM	6	10	19	
2	FireHazards, Planning & Response	KandlaPort	6	11	114	
	Trust					
3	Disaster Management and	Government	20	24	27	
	Administration	Polytechnic,				
		Ahmedabad				
4	Fundamentals of Disaster Recovery	GIDM	22	24	19	
FEBRUARY, 2014						
5	Disaster Risk Management of	GIDM	17	21	26	
	Cultural Heritage					
MARCH,2014						
6	Disaster Management:	KaraiPolice	25	26	165	
	Basic Concepts-I	Academy				

# **GUJARAT INSTITUTE OF DISASTER MANAGEMENT**



# Workshops organized

- A special workshop on "Seismic Microzonation and Hazard Assessment" was organized by GSDMA, GIDM, INAE in collaboration with ISR on 5-6 January, 2014 which was preceded by the 3rd Annual Convention of ISR titled "Earthquake Science – The Future Challenges". The workshop was inaugurated by Smt. Anandiben Patel, Hon'ble Minister of Revenue, Disaster Management, Road & Building dipartment, Urban Development & Urban Housing. The workshop was attended by leading scholars and experts from India and Abroad.
- A Consultation Workshop on '*Media Management in Disasters*' was organized at GIDM campus on 5-6 February, 2014 for district administrators on role of media during disaster events, establishing effective coordination systems and utilizing media in disaster risk reduction.
- A brainstorming conference was organized on 14 February, 2014 by UNDP at GIDM on sharing of experiences of recovery for developing a robust national recovery framework for India. Senior officials and experts from MHA, NDMA, UNDP, GSDMA, IIT Mumbai, GGSIPU, OSDMA and Sphere India suggested comments in the meeting.



### Visit of National/International Delegation

- Xavier Institute of Social Service, Ranchi- A group of twenty five M. A second year students visited GIDM on 13–14 December 2013 as part of their educational visit to Gujarat.
- <u>Hiroshima University</u>- A three member delegation headed by Prof. Shinji Kaneko from the Graduate School of International Development and Cooperation, Hiroshima University visited GIDM in the month of January 2014 in order to explore the possibility of collaboration for research and education. The Hiroshima University has also shown willingness to set up a program center at GIDM for coordinating field research in India.

#### Collaboration

GIDM signed a Memorandum of Understanding with the *Institute of Disaster Mitigation for Urban Cultural Heritage, Ritsumeikan University (RitsDMUCH), Kyoto Japan* to promote the mutual development of their academic, research and educational activities in the field of Cultural Heritage and Disaster Risk Reduction. As part of the agreement, RitsDMUCH conducted a training course on 'Disaster Risk Management of Cultural Heritage' from 17 to 21 February 2014. The course was designed to train the participants in formulating appropriate plans and procedures for reducing disaster risks to cultural heritage through mitigation, preparedness, response and recovery.

GUJARAT INSTITUTE OF DISASTER MANAGEMENT

#### Training programmes scheduled from June - August 2014

UPCOMING TRAINING PROGRAMMES	DATE
Hazard Risk Vulnerability Assessment	10–11 June 2014
Flood Hazard Management and Planning	17 – 19 June 2014
Taluka Disaster Management Plan	25 – 26 June 2014
Cyclone Preparedness, Planning and Response	07 – 11 July 2014
Community Based Disaster Management	22 – 24 July 2014
Flood Hazard Management and Planning	21 – 25 July 2014
Emergency Medical Response	06–08 August 2014
Road Accidents & Management	12–13 August 2014
School Safety	20–22 August 2014

For participation, please contact at infogidm@gmail.com

## **GENERAL TIPS FOR FLOOD AND CYCLONE SAFETY**

# **Before Flood:**

- Keep drainage clean and free of blockage.
- Stockpile sandbags for emergency situation.
- Keep the listed items ready in a plastic bag Battery / torch, extra charging cell, dry food, and extra pair of clean clothes, drinking water, essential medicines (especially those of fever, cough/cold, and diarrhea), identity card, important documents, eatables(eg. Biscuits or other dry eatables), and important phone numbers. This is a safety kit.
- Identify safe shelters and higher grounds for emergency evacuation.
- Discuss these safety steps with your family members and teach them to use 108 for any medical emergency.
- Inspect your house for any cracks or other damage. Check all the walls, floor, ceiling, doors and windows so that any risk of house collapse can be known and safety measures can be taken.

## **During Flood:**

- Listen to the emergency forecasting and warning regularly on television and radio. Evacuate only when instructed to the identified safe shelter after switching off the main electric supply switch and closing gas connection, freeing the domestic cattle, locking the house and taking the safety kit prepared before flooding.
- Do not leave the safe shelter until the local officials declare normalcy after flood and instruction to return home are given.
- Do not listen to rumors and do not participate in spreading rumors.
- Stay away from electric poles and open wires.
- Do not enter areas of water logging; you do not know how deep they could be. Do not allow children to play in stagnant water.
- Sprinkle insecticides on stagnant and dirty water. Use mosquito nets as a protection against insect borne disease (especially malaria).
- Check all the electric circuits, flood level furnace, boilers, gas cylinders or electric equipments like motor pump etc. Switch off the main electric supply, if any damage is noticed in the electric equipments.
- Be aware that flash flooding can occur. If there is any possibility of a flash flood, move immediately to higher ground. Do not wait for instructions to move.
- Be aware of streams, drainage channels, canyons, and other areas known to flood suddenly. Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain

#### If you are required to evacuate, you should do the following:

- Secure your home. If you have time, bring in outdoor furniture. Move essential items to an upper floor.
- Turn off utilities at the main switches or valves if instructed to do so. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.

#### If you have to leave your home, remember these evacuation tips:

- Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
- Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly swept away.heavy rain

## **After Flood:**

- Destroy the food commodities that have been affected by flood water.
- Sewerage system should be checked and any damage should be repaired immediately so as to curtail spread of disease.
- Boil drinking water before usage.
- Check for gas leakages and come out of the house if gas leakage is detected.
- Do not use defective electronic equipments; they might cause short circuit.
- Do not use tap water or tap water if the drainage lines are damaged.
- Listen for news reports to learn whether the community's water supply is safe to drink.
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines.
- Avoid moving water.
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a vehicle.
- Stay away from downed power lines, and report them to the power company.

# **Before Cyclone**

- Check the house; secure loose tiles, carry out repair works for doors and windows
- Remove dead woods or dying trees close to the house; anchor removable objects like lumber piles, loose tin sheds, loose bricks, garbage cans, sign-boards etc. which can fly in strong winds
- Talk to children and explain about cyclones without scaring them.
- Create storm awareness by discussing effects of a cyclonic storm with family members so that everyone knows what one can and should do in an emergency. This helps to remove fear and anxiety and prepares everyone to respond to emergencies quickly.
- Keep your valuables and documents in containers, which cannot be damaged by water.
- Keep information about your blood group.
- Keep lanterns filled with kerosene, torches and spare batteries. These must be kept in secure places and handy.
- Make plans for people who are either sick, suffer from disabilities, aged and children.
- Store up at least seven-day stock of essential food articles, medicines and water supply.
- Keep blankets & clothes ready for making beds. Also keep cotton bandages and several copies of photographs of family members in case they are needed for identification purposes after the storm.
- · Store some wooden boards so that they can be used to cover windows.
- Keep trees and shrubs trimmed. Remove damaged and decayed parts of trees to make them resist wind and reduce the potential for damage. Cut weak branches and make winds blow through.
- All doors, windows and openings should be secured.
- Continue to listen to warning bulletins and keep in touch with local officials. Keep radio sets in working condition. Battery powered radio sets are desirable.
- Evacuate people to places of safety when advised.
- Take steps to protect your assets.
- Store extra drinking water in covered vessels.

### **GENERAL TIPS FOR FLOOD AND CYCLONE SAFETY**

# **During Cyclone:**

- When a cyclone alert is on for your area stay alert to the radio warnings and passes on the information to others. A cyclone alert means danger is within 24 hours.
- When your area is under Cyclone alert, stay away from low lying beaches or other low lying areas close to the coast.
- Board up glass windows or put storm shutters in place. Provide strong suitable support for outside doors.
- If your house is securely built on a high ground take shelter in the safer part of the house. However if asked to evacuate do not hesitate to leave the place.
- If you evacuate the house, move your valuable articles to upper floors to minimize damage. Small and loose things, which can fly in strong winds, should be stored safely in a room.
- Switch off electrical mains in your house.
- Remain calm.
- · Avoid remaining on the top floor of dwellings. Stay close to the ground.
- Fishermen are advised not to venture out into the sea. They should keep boats and rafts tied up in a safe place.
- Avoid taking shelters near old and damaged buildings or near trees.
- Do not touch power lines. One may get electrocuted.

# **After Cyclone**

- Watch out for broken glass and other sharp items in debris.
- Watch out for snakes and insects. Try to call for help.
- Listen to the advice of local officials and emergency workers.
- Be sure that the storm has subsided before venturing out.
- It is advisable to wait for the "all clear message" on radio and TV networks.
- Wait for emergency relief teams to arrive. It may take a little time before relief becomes effective.
- Stay away from flooded areas.
- Fishermen should wait for at least 24 hours before resuming fishing.
- Volunteer to help people who may need assistance like:
- Bringing evacuated people back home and in recording damages suffered
- Rendering first aid to the wounded
- Donating blood
- Locating places where dead bodies can be kept until they are disposed off
- Organizing clearing-up so that normalcy returns as soon as possible

## When evacuation is instructed:

- Pack essentials for yourself and family to last for a few days including medicines, special food for babies and children or elders.
- Head for the proper shelter or evacuation points indicated for your area.
- At shelter, follow instructions of the person in charge.
- · Remain in the shelter until you have been informed to leave.

# આવે નફિ પસ્તાવાનો વારો

રાખો સુરક્ષા ને જીવનમાં ઉતારો; એને આવે નહિ, પસ્તાવાનો વારો.

સેફટીશુઝ પહેરીને પગને સાંભળો; અપનાવી સુરક્ષા ને જીવન શણગારો; ફક્ત કેઠેશે સુરક્ષા, તુજને મારો" .......... એને આવે નહિ

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