# Preparation of Disaster Contingency Plan

# **Syllabus**

Prepare a Contingency Plan either for your school or home/community. The Plan should be based on an actual survey of your area/locality or school. The Plan prepared should consist of the following maps, inventory of resources available and a seasonality calendar highlighting the seasons prone to various hazards prevalent in that locality/school.

- A social map
- A Resource map
- A Vulnerability map on the outline map of your locality.

(**Note for the Teachers:** The teachers need to help the students while preparing the plan for the locality/school. It should answer the questions given under the sub-heading 'community contingency plan' in the lesson, called 'Planning Ahead' of Disaster Management textbook.)

# Introduction

- Over the past few decades there has been an increase in disaster occurrence causing human and material losses. This is due to the ever increasing vulnerability of people. The need is felt to reduce the vulnerabilities of people who are the "first responders" and ensure preparedness, mitigation and response planning process at various levels.
- In the past disasters were looked at as isolated events, responded to by the Govts. and various agencies without taking into account the social, economic causes and long term implications of these events.
- In recent years, there has been a paradigm shift in the approach to disaster management. The change is from "relief and emergency response" to a balanced approach covering all phases of Disaster Management Cycle.

#### **Disasters and Development**

- Disaster data fails to capture the full extent of the damage caused by small recurrent hazards.
- In addition to the destruction of homes, buildings and other assets-disasters also lead to shortages of food, outbreak of diseases which aggravate the pre-existing poverty and worsen the situation.
- "The number one obstacle to development is calamities" says a villager in Assam.
- To reduce the impact of disasters it is important to carry out disaster preparedness plans-ranging from a broad mitigation preparedness strategy to a detailed contingency plan.

- In most of the Contingency plans the aims are
  - (*i*) to save human life
  - (ii) meet people's requirements during emergencies
  - (iii) restore facilities that are essential to health, safety and welfare.

### **Community Based Approach to Disaster Management**

- Community based approach is not new in the field of disaster management. It is increasingly becoming evident that with appropriate support in skill development and infrastructure, communities can play a central role in disaster management.
- In the past "the domain approach" to deal with disasters offered no space for community—it saw community as a "part of the problem" for which solution was needed. Communities were considered as "victims" and "beneficiaries" of "intervention by" outside experts.
- The Community based approach sees "community as a part of the solution."
- A sustainable way of addressing disasters and disaster management lies in recognising the community as a resource. This approach makes it possible to find solutions within and makes communities less dependent on outside help and relief.

#### Community as a Resource

- They have knowledge about the disasters and are sometimes able to forecast them.
- They are rich in experience of coping-both in preparedness and in emergencies.
- Their richness of the coping methods derived from their own experience suit the local environment best. For example in parts of Himalayas traditional wooden buildings are designed to withstand the earthquakes.
- Communities spend their real priorities in the context of all the constraints they face. Thus the experts should take the help of the local communities whenever they plan.
- By itself community capacity is not sufficient, Community efforts need to be supported.

# **Barriers to Community Efforts**

- Lack of resources
- Inadequate technologies
- Lack of capacity in community organisation
- Difficulties in negotiating with governments and other agencies
- Lack of control over structural factors.

It is but natural that in a calamity the community comes together. It is the community members who know exactly what the resources are and how it can be used. They are the ones to know who lives where and how they may have been affected. There are also always special resources in any community which have been traditionally used to deal with disaster which only the community knows of and that has to be used to deal with outcomes of a disaster like what to eat, how to organise living facilities, what source of fuel to use, what local herbs could be used to cure common ailments.

Disaster Management is the discipline of dealing with risks. It is a discipline that involves preparing, supporting and rebuilding when natural or human made disasters occur. The action taken depends on the perception of the risk. A **Contingency Plan** is a plan devised for a specific situation when things could go wrong. They are often devised by governments or businesses who want to be prepared for anything that could happen. They are sometimes known as Back-up Plans, Worst case Scenario plans.

Contingency plan includes specific strategies and actions to deal with a particular problem emergency or state of affairs. They are required to help governments, businesses or individual to recover from serious incidents in the minimum time with minimum cost.

# **Some Recent Disasters**

October 8, 2005	— Earthquake in Pakistan	
December 26, 2004	- Earthquake and Tsunami in the Indian Coast	
January 26, 2001	— Gujarat Earthquake	
July 26, 2005	— Floods in Mumbai	
September 22, 2005	— Cyclone Rita	
July 16, 2004	— Fire Kumbakonam, Dabwali	
April 20, 2013	— Terrorist attack ; Chechnya	

Disasters occur in varied forms. Some are predictable in advance, while some are annual or seasonal.

- 57% of the land area is prone to Earthquakes
- 12% to Floods
- 8% to cyclones
- 70% of the cultivable land is prone to drought
- 85% of land area is vulnerable to natural hazards
- 22 states are health hazard states

#### The Tenth Five Year Plan focuses on:

- Planning for safer national development
- Disaster Prevention, mitigation and preparedness measures
- Capacity building

# Four major areas of concern are:

- Inclusion of disaster management in school curriculum.
- Disaster Management and preparedness in schools.
- Safety of schools from natural hazards.
- Preparation of disaster management plans at school level.

# What is a Contingency Plan?

- A Contingency Plan is a plan devised for a specific situation when things could go wrong.
- They are often devised by governments or businesses who want to be prepared for anything that could happen.
- Contingency Plan is action-oriented.
- They are sometimes known as 'Back-up Plans', 'Worst case scenario plans'.
- It includes specific strategies and actions to deal with a particular problem, emergency or a state of affairs. They are required to help governments, businesses or individuals to recover from serious incidents in the minimum time with minimum cost.

#### Need for a People's Contingency Plan

- Offers many hidden benefits like avoiding wastage of time which is so crucial in a disaster.
- Helps in assessing vulnerability, capacity builling and knowing about risk.
- Helps to avoid great suffering.
- Builds up response to a particular situation.
- Identifies place of occurrence of the disaster.
- Increase the coping capacity of the community.
- Promotes coordinated action by the communities.
- Reduces the vulnerability of the concerned community.

#### Importance of a Contingency Plan

- A Contingency Plan need not be very scientific or sophisticated.
- It may not show the use of flow diagrams.
- A plan is not a single person activity but community oriented and covers various hazards.
- Contingency Plans are prepared at different levels: Neighbourhood, Village, Block, District, State and National levels.
- A functional contingency plan gives basic information, helps in risk assessment and enhances accuracy through assimilation of experience information and skills of widest possible range.
- It helps to understand the situation of each participant in the plan.
- It is a kind of advance preparation.
- It helps to put in place potential response system.
- It brings out transformation of the set task and helps to meet the goals.
- Planning helps to remove the confusion that may otherwise inhibit work when a disaster strikes.
- Both the govt. and the non-govt. organisations are involved in their preparation.
- As these plans are people centric so they are known as the people's contingency plans.
- An effective contingency plan is prepared by involving all types of people from different areas.

#### **Community Contingency Plan and Disaster Preparedness**

- A contingency plan being based on realistic perspectives helps to answer the following crucial questions which form the basic elements of the plan.

Who	It specifies who will do what. For example, work in the field, listen to messages, make contact.
Whom	Whom to contact
Where	Where to go just
When	When to go there, when to begin search and rescue
What	What type of arrangements, what to do in case of a particular situation

How	Relates to transport, communication. For example – how to go there, how to obtain a SATCOM set it.
Why	All the elements of the plan have a reason to be provided for. It is even linked to the unforeseen aspects of the plan.

# Preparing a Plan and its Constituents

A typical contingency plan should consist of the five basic elements:

- 1. Rapport building and initial awareness
- 2. Outlining the profile of the community concerned
- 3. Analysing the situation on a participatory basis
- 4. Selection of task forces, indicative responsibilities and capacity
- 5. Rehearsals/Mock drills
- 1. **Rapport building and initial awareness.** The groups with which rapport building is necessary are senior citizens, self-help groups who are the first steps in a Community Contingency Plan.

The government functionaries, the elected representatives of the people, NGO's can also be involved.

#### Steps for rapport building

- Hold discussions
- Conduct mass meetings
- Organise street Plays
- Audio/Visual shows
- Posters/Awareness Campaigns
- Cultural activities
- A free and friendly discussions is done on various aspects of planning to motivate them and get them involved in the planning process.
- The discussion is to be in a participatory way. Let the community discuss the recent disaster incident that took place in its own disaster prone locality. This will enable the people to know about the losses suffered and risks involved.
- Discussion of local knowledge helps to cope with the disaster as natural hazards are not new and people have been living with it for centuries. They have devised their own methods for protecting themselves. Indigenous knowledge is wide ranging and cannot be ignored.

# 2. Formation of a village disaster management committee (VDMC)

- Each village in the disaster prone area form a VDMC.
- Its basic objective is to initiate disaster preparedness activities the head of the VDMC takes the lead in mobilizing the community, seeking participation of people at the grass-root level.

#### **Composition of VDMC**

- (i) Local government functionaries
- (*ii*) NGO's
- (iii) Youth clubs
- (iv) Members of mahila samitis

- (v) Senior citizens
- (vi) Grass root level government functionaries

# 3. Outlining the profile of the community

The profile of the community should provide the following data:

- Details of population
- Local resources both human (doctors, ex-servicemen) and material (boats, gen-sets)
- Existing housing pattern
- Prevalent cropping and occupational pattern
- 4. **Review and analysis of past disaster.** Knowledge about past disasters helps in finding out if a pattern exists. Based on this review and analysis action plans can be drawn to meet future threats.
- 5. **Seasonality calendar for disasters.** The communities develop the seasonality calendar based on their past experiences regarding the various natural hazards and the occurrence of disasters.

The calender prepared by the community shows the month of occurrences of events and the months for preparedness and mock drill.

	Seasonality Disaster Calendar											
Hazards	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flood						+	+	+				
Cyclone				+	+					+	+	
Drought				+	+			+	+			
Forest fire			+	+								

#### 6. Mapping exercise

- A disaster management plan at the village level remains incomplete without a mapping exercise.
- Mapping is done on various parameters risks, vulnerability capacity, etc.
- A simple ground map is prepared by the community itself through the Participatory Rural Appraisal exercise.
- The villagers draw the maps on the ground using locally available materials.
  For example; stones, colours, powders, etc.
- The pictorial base of the map is of interest to everybody, including the illiterate and semi-literate people.

The different types of maps are

- 1. Social mapping
- 2. Resource mapping
- 3. Vulnerability mapping
- 4. Safe and alternate route mapping
- 1. Social mapping. The villagers draw a pictorial map giving details.
  - Location of the locality with respect to its natural surroundings (topography)
  - Number of pucca and kachcha houses

- Other common Infrastructure : health centre, hospital, road, wells, electricity etc.
- Budges
- Embankments
- Water sources (Ponds, wells, tube-wells, canals, rivers)
- 2. **Resource mapping.** Resource mapping shows the locally available resources through symbols. These can be used for building the capacity of the community during and after a disaster.
  - A resource map shows the following available resources:
  - Individual skills-shown by marking the presence of doctors, swimmers, etc.
  - Resources around the locality (boats, foodstock etc.)
  - Locating the open land, low lying area, elevated area
  - Protection bund and drainage facilities
  - Agricultural area, forest land, plantations, mangrove, shelter belts, etc.
  - Government and private institutions
  - Tubewells, ponds, lakes etc.
- 3. **Vulnerability mapping.** Vulnerability mapping shows the degree and extent of the disaster prone area.
  - Household wise vulnerable groups
  - Types of disaster which affect the area frequently
  - Location of hazardous industries, electrical installations, tall/weak structures
  - Dead and defunct infrastructure
  - People at risk—old, sick, pregnant women, physically or mentally challenged, children below 5 years.
- 4. **Safe and alternate route mapping.** Safe and alternate route mapping gives the community the first opportunity to have unhindered path to reach a safe place during a disaster.

Identification and location of safe places and houses like-raised platform made of reinforced concrete, community houses and Panchayat Ghar and other types of institutions available in that area. The map also shows the safe routes, roadways, railways, waterways and other shelters available in the area.

Existing health medical and sanitation facilities that can be used.

- 5. **Selection of disaster management teams.** Great care needs to be taken in the selection of the Disaster Management Teams at all levels-village, block and district. Although anyone can become a member and yet it is mandatory to ensure safety. It is a sombre and telling warning indeed to select only suitable persons. The members may be from the following:
  - Fit and healthy ex-servicemen, border and security personnel
  - Scouts, guides/NCC/NSS background persons
  - Members of the Mahila Samiti
  - Doctors, nurses and other skilled persons

**Team composition.** A Disaster Management Team should have 25 members per 400 to 500 households. The number of members may be increased depending on the population and services needed.

**Constitution of task forces.** There can be task forces in each of the following specialised field to conduct core activities:

- Early warning team
- Evacuation team
- Search and rescue team
- First aid team
- Shelter management
- Relief team
- Sanitation
- Carcass disposal team
- Trauma counselling
- Damage assessment
- 6. **Training.** Training courses for the task forces could be organised locally as well as at institutional facilities at district, state or national levels. Training could be conducted for each of the above task forces at:
  - Local hospital
  - Police headquarters
  - Fire services department
  - Trauma counselling centres
  - Local Red Cross Offices

#### 7. Rehearsals, mock drills and plan updating

- Rehearsals help to give the feel of a real life situation. Mock drills are important for preparing for disasters. Plan updating increases the response and also helps to keep the community alert and well prepared to face any situation.
- If the villages be in an area prone to cyclone or flood annually, such mock drills should then be conducted twice a year.
- The Contingency Plans need to be dynamic and working. With the changes in the disaster prone area these plans also need to be revised on a regular basis with updated information.

# Preparation of Disaster Management Plans at School Level

#### What is a safe school?

- A safe school is either a school which is located in a hazard free area or one that has been constructed to withstand the hazard to which it is exposed.
- A safe school will not collapse or get affected if a disaster happens.

#### Government of India's Initiative

- Inclusion of Disaster Management in School Curriculum
  The process was initiated with a set of recommendations from Home Ministry to the Chief Secretaries of states-one of them being DM in Education.
- Introduction of Disaster Management in Classes VIII, IX, X, XI as part of the frontline curriculum by CBSE.
- Many of the State Boards have introduced Disaster Management in school syllabi.

#### School Planning for Disaster Management

- Study your school building carefully and its surroundings and make a detailed plan for disaster preparedness. Do not imagine the dangers, find the real dangers whether they exist or not.
  - 1. First Find Out
    - Is your school building safe?
      - Ask a structural engineer or civil engineer to survey
    - If the foundation is deep or shallow?
    - If the roof is permanent or temporary?
    - If there are unsafe beams?
    - Is there any seepage, leakage in the building?
    - Find out the unsafe electric connections.
      - Are there any false ceilings?
    - Are partitions made of flammable board for sound proofing?
    - Are there shelves, decorations which are heavy and could fall during an earthquake and cause injuries?
  - 2. Is the school building well-equipped to serve as a disaster relief centre?
    - Are the rooms in the buildings safe and water proof?
    - Is their sufficient storage space for water?
    - Are the bathrooms and laboratories well maintained?
    - Is there sufficient evacuation routes known to all in the school?
    - Are the fire extinguishers serviced and filled at least every year?
  - 3. Is the approach to the school free to reach the school by bus, truck, foot and cycle safely?
    - Is the school entrances in the middle of the town?
    - Is there any large road in front of the school?
    - Can an ambulance, fire engine reach the school easily?
    - Is the school near a river and could be flooded?
    - Are there no trees and forests to protect against cyclones?
    - What are the measures needed?
    - What are the authorities to be contacted?
  - 4. Prepare a telephone directory containing the details of the telephone number with addresses of the following and displayed it.
    - District Magistrate or Municipal Commissioner
    - Nearest Fire Station Superintendent
    - Nearest Police Station House Police Incharge
    - Nearest Hospital, primary health centre and clinic incharge
    - Local Civil Defence Warden/Instructor.
  - 5. Mock Drills
    - Earthquake drill
    - Fire drill
  - 6. School Disaster Management Committee would set up task forces: Task Force 1 WARNING DISSEMINATION

Task	Force	2	EVACUATION SEARCH AND RESCUE
Task	Force	3	EMERGENCY FIRST AID
Task	Force	4	AWARENESS GENERATION
Task	Force	5	MITIGATION

**Task Force 1** for Warning Dissemination would equip itself with necessary tool to predict disasters.

- The responsibility of this group would be to issue warning

**Task Force 2** for Evacuation, Search and Rescue—on receiving the warning the Task Force 2 would get into action.

- Before disaster strikes it would have made all the preparations.
- People would have been evacuated from unsafe places to safe places.
- The responsibility of this group is to launch the search and rescue operations.

Task Force 3 Emergency And First Aid

- After the disaster has struck this group swing into action.
- They are well-equipped with information and knowledge to provide help to the distressed.

**Task Force 4** Awareness Generation to perform the most important task of cultivating awareness in the community.

- A community is the first responder in a disaster.
- All members of the community would be made aware of all sources of help and how to reach them when required.

Task Force 5 Mitigation

Then task is to engage in finding different ways and means of mitigating disaster.

# Conclusion

With a well organised disaster-management plan the consequences of a disaster would be much less than what they would ordinarily be. The community would be better prepared to face disasters. The potential loss from a disaster can be minimised or contained within tolerable limits. As the biggest enemy it is rightly said in a disaster is "our ignorance and complacency to disaster preparedness."

#### **Disaster Management Awareness and Preparedness in Schools**

- Teachers Training Programmes 33 teachers trained so far by the CBSE
- Training of the teachers also by the states

#### School Safety Weeks and months observed

- Training on self-defence by Civil Defence
- Training on Fire Safety

# **Preparation of School DM Plans**

- Schools to prepare DM-plans based on the hazard that they are vulnerable to.

#### Steps for the Preparation of DM Plans

- Sensitisation meeting for Awareness Teachers, School Management and students.

# Formation of a School Disaster Management Committee

- School Principal
- Vice Principal
- District Education officer
- President of Parent Teacher Association
- Sub-Divisional Magistrate of the Area
- Parents
- Local Medical Officer
- Fire officer
- Police
- Members of Civil Society (NCC, NSS, Red Cross Scouts and Guide)
- 4 students
- Market Trader Association

# • Hazard Identification

- History of disasters
- Identification of potential hazard
- Preparation of seasonality calendar

# • Inventory of resources

# • Mapping

- Social Mapping
- Resource Mapping
- Vulnerability/Risk Mapping
- Safe and opportunity Mapping
- Class-rooms in the school building
- Laboratories
- Playground
- School Canteen
- Library

# • Social Mapping

- Human resources
- School Buses
- Generators
- Fire Extinguisher
- Stretchers
- Drinking Water Sources
- Health Centre in the school

# Resource Map

- Children in pre-school and primary section
- Physically challenged
- Identification of potentially vulnerable areas in the school

# • Vulnerability/Risk Map

- Identification of Safe places in the school
- Alternative staircases/routes to be identified

# • Safe and Alternate Route Mapping

- 6 school DM Team

# • Early Warning Team

- School Teacher
- Student-3 most communicative

# • Activity/Event Organising Team

- Disaster Management Teacher
- Art and Craft teacher
- Music teacher
- Prefects
- Active students

# • Search and Rescue

- Sports teacher
- Male teacher
- Prefect (student-2)
- Evacuation
  - All class teachers

# • First Aid Team

- Resident doctor of the school/medical consultant
- Teachers-2
- Students-2 (10th/12th class)
- Fire Safety Team
  - Teachers (2)
  - Students (4-10th class)

# • Site Security Team

- School Security staff
- Teacher 1
- Students 2

#### • Training of School Disaster Management Teams

- Search and Rescue
- First Aid
- Trauma Counselling
- Fire fighting

# Mock Drill

- Drills to be carried twice a year
- Drills should be hazard specific
- Plan Updation
  - Plans to be updated every six months
  - Plans to be approved by the Disaster Management Committee
  - Development of training modules for teachers and teacher education
  - Safety in schools
  - Mid-day meals
  - Health, well-being and safety of students.

# • Safety of School Building

- Focus on structural and non-structural safety