

UNIT-6: DISASTER MANAGEMENT AND CIVIL AFFAIRS

Content and specific topic	Comprehension	Analysis	Synthesis	Evaluation
Civil defence organization and NDMA	Understand about the civil defence organization and NDMA	Analyse the functioning of the body during the times of distress	Appreciate the preparedness of the organisation in the hour of need and during any emergency.	Worksheets, comprehension questions, discussion and activities.
Types of emergencies and natural disasters.	Understand the types of emergencies and natural disasters.	Examine the causes and effects of natural disasters. Learn about national emergencies.	Infer the concept of disaster management.	Worksheets, comprehension questions, discussion and activities.
Assistance during natural and other calamities: Floods, cyclones, earth quakes, accidents.	Understand about the assistance during natural and other calamities.	Analyse the DO's and DONT's during any natural disaster and other calamity.	Appreciate the role of NDMA in disaster management	Worksheets, comprehension questions, discussion and activities.

Unit-6

Disaster Management and Civil Affairs

1. Civil Defense Organisation

Civil Defence was first established in India on 24th October 1941. Two significant events took place after independence which gave a major fillip to Civil Defence in India. The first was the Chinese aggression in November, 1962 and the other was the Indo-Pakistan conflict in September 1965, when for the first time after Independence, the nation was subjected to enemy air attacks. This led to considerable re-thinking about the policy and scope of Civil Defence and as a result, the Civil Defence policy was evolved.

Sino-India War of 1962

The Chinese Invasion

The Chinese invasion came with a bewildering suddenness. The invasion had a great impact on India and on the thinking of its leaders, the Armed Forces of India, their equipment and training. Among the Army units that fought to stem the tide of Chinese invasion were valiant battalions of the Kumaon Regiment. They fought with valour, and the gallantry of their officers and men won undying fame.

Battle of Walong - 1962

During 1962 War, a Kumaon Battalion was deployed in the Walong Sector of North East Frontier Area, (now Arunachal Pradesh), where they fought the Chinese with astounding grit and determination. Source: <http://indianarmy.nic.in/WalongWarMemorial>



Disasters disrupt progress and destroy the hard-earned fruits of painstaking developmental efforts, often pushing nations, in quest for progress back by several decades. Thus, efficient management of disasters has in recent times, received increased attention both, within India and abroad.



Relief Measures

The Civil Defence Act of India was enacted by Parliament in May 1968. Today, Civil Defence includes measures, not amounting to actual combat, for affording protection to any person, property, place or thing in India or any part of the territory thereof, against any hostile attack, whether from air, land or sea, or for depriving any such attack of the whole or part of 'its' effect.

Civil Defence is a much misunderstood subject because it is often confused with the air raid precautions taken during the war. There are many other measures necessary to deal with effects of direct and indirect raids and such measures cannot be disassociated from the Civil Defence measures.

Civil Defence measures mainly consist of:

- a) **Protective Preventive Measures:** The measures which may be taken before an air raid, such as dispersal of population and industries, camouflage, preparation of shelter, warning and training etc.
- b) **Control Measures:** The Measures taken immediately after the raid, such as reconnaissance, reporting of damage and unexploded bombs, rescue of casualties, control of services, clearance of debris and extinguishing of fires.
- c) **Restorative Measures:** The measures which become necessary after an air raid include feeding, providing shelter and clothing, salvage of property, disposal of dead, disposal of unexploded bombs, control of infection and contamination, repair of damages caused to utility services etc.

Civil Defence is primarily organised on voluntary basis except for a small nucleus of paid staff and establishment which is augmented during emergencies. The present target of Civil Defence volunteers is 12.49 lakhs, out of which 6.0 lakhs have already been raised and 4.8 lakhs have been trained. These volunteers are administered and trained by 68 Deputy Controllers, 17 Medical Officers and 503 Civil Defence Instructors, which are full time, paid posts.

At the national level, the Home Ministry is responsible for Civil Defence. It has under its direct control, the Directorate of Civil Defence, headed by a Director General - usually a senior police officer, who is responsible to advise the Home Ministry on all matters relating to Civil Defence. The Civil Defence organization basically comprises of the Home Guards, NCC and the Fire-Fighting Units. Most of the central ministries have a civil defence cell which gets activated during emergency and is responsible for rendering specialist advice pertaining to their respective ministries to the Home Ministry. In addition, the Ministries of Defence and Railways are responsible for civil defence of properties owned or managed by them.

1.2 The Civil Defence Corps has the following 12 services in which volunteers are trained:

a) **Headquarters Service:** This service functions under control of Civil Defence.

b) **Warden's Service:** It is a link between the public and the authorities. This service is responsible for organizing self-help parties, fire parties and to check light restrictions, report damages and guide homeless to the Rest Centres.

c) **Fire Fighting Service:** They detect small fires and put out the same.

d) **Casualty Services:** The functions of this service are:

- i) Rendering first aid on the spot.
- ii) Providing transport to casualties for short distances.
- iii) To send various casualties for further treatment.

e) **Communication Services:** This service is responsible for:

- i) Receipt and disseminate of air raid warning.
- ii) Provision of co-ordinate and control facilities.
- iii) Provision of communication between warden posts, control centres through messengers or telephone etc.

f) **Rescue Services:** Their duty is to rescue the injured and personnel trapped under the debris.

g) **Welfare Services:** It is responsible to supply information about missing and dead etc., to provide shelter, food and clothing and to arrange evacuation from vulnerable areas.

h) **Depot and Transport Services:** It is this service which sends various services to the scene of the incident and provides the necessary transport required from time to time.

i) **Salvage Service:** It is responsible to salvage the damaged property and keep it in safe custody.



Civil Defence Corps in action



Providing first-aid



Corpse disposal service

- j) **Corpse Disposal Service:** This service is responsible for collection, identification and disposal of dead bodies.
- k) **Supply Service:** This service is responsible for planning, organizing and procuring necessary equipment for Civil Defence Services, its proper storage and quick distribution of equipment at the time of need.
- l) Besides the above mentioned services, the Civil Defence organisation will be required to set up '**Repair and Demolition Parties**' and make arrangements for the care of animals through appropriate existing agencies, operating in the town.

State Level Organisation: Each State and Union Territory government has, under the overall control of its Inspector General of Police, a Director General of Home Guards and Civil Defence. In the case of the central government, she/he is a senior police officer and is responsible for controlling fire department as well.

District Level Organisation: In a district, the District Magistrate is the ultimate authority on Civil Defence. He/She is designated as the Controller of Civil Defence. He/She is responsible for implementation of all Civil Defence measures by the district departmental heads such as Civil Surgeon, Superintendent of Police, PWD Engineer, Publicity Officers etc. They are appointed by him/her as in-charge of various Civil Defence Services. He/She also constitutes an Advisory Committee, out of the people possessing qualities of leadership and discipline, who can arouse and sustain public interest in the Civil Defence Services.

2. National Disaster Management Authority (NDMA)

India is vulnerable, in varying degrees, to a large number of natural as well as man-made disasters.



NDMA Logo

58.6 per cent of the Indian landmass is prone to earthquakes of moderate to very high intensity. Over 40 million hectares of land (12 per cent of total land) is prone to floods and river erosion. Of the 7,516 km long coastline, close to 5,700 km is prone to cyclones and tsunamis. 68 percent of the cultivable area is vulnerable to drought. Hilly areas are at risk from landslides and avalanches. India also has had a history of natural disasters in recent years, Disaster Management thus assume importance in India.

On 23 December 2005, the Government of India took a defining step by enacting the Disaster Management Act of India, which envisaged the creation of the National Disaster Management Authority (NDMA), headed by the Prime Minister.

2.1 Organisation of NDMA

At the national level, the NDMA is the apex body for disaster management, and is headed by the Prime Minister. The NDMA is mandated to deal with all types of disasters: natural or man-made. It is responsible for laying down policies, plans and guidelines for Disaster Management and coordinating their enforcement and implementation for ensuring timely and effective response to disasters. In addition, it is responsible to:

- a) Approve the National Disaster Management Plans and Disaster Management Plans of the Central Ministries/Departments.
- b) Take such measures, as it may consider necessary, for the prevention of disasters, or mitigation, or preparedness and capacity building, for dealing with a threatening disaster situation or disaster. Central Ministries/Departments and State Governments will extend necessary cooperation and assistance to NDMA for carrying out its mandate.
- c) Oversee the provision and application of funds for mitigation and preparedness measures. NDMA has the power to authorise the Departments or authorities concerned, to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation or disaster.
- d) Exercise superintendence, direction and control of the National Disaster Response Force (NDRF).
- e) Lay down framework of broad policies and guidelines for working of the National Institute of Disaster Management (NIDM).

National Executive Committee (NEC)

- a) The NEC is the executive committee of the NDMA, and is mandated to assist the NDMA in the discharge of its functions and also ensure compliance of the directions issued by the Central Government. The NEC is to coordinate the response in the event of any threatening disaster situation or disaster.
- b) The NEC comprises the Union Home Secretary as Chairperson. The Secretaries of various important Ministries/Departments of the government and the Chief of the Integrated Defence Staff of the Chiefs of Staff Committee are members. Secretaries in the Ministry of External Affairs, Earth Sciences, Human Resource Development, Mines, Shipping, Road Transport and Highways, and the Secretary, NDMA may be invited to the meetings of the NEC.
- c) The NEC is responsible to prepare the National Plan for Disaster Management based on the National Policy on Disaster Management. The NEC monitors the implementation of guidelines issued by NDMA. It also performs such other functions as prescribed by the Central Government in consultation with the NDMA.

2.2 State Disaster Management Authority (SDMA)

- a) At the State level, the SDMA, is headed by the Chief Minister, who lays down policies and plans for Disaster Management in the State. Among other things, it approves the State Plan in accordance with the guidelines laid down by the NDMA, coordinates the implementation of the State Plan, recommends provision of funds for mitigation and preparedness measures and review the developmental plans of the different Departments of the State to ensure the integration of prevention, preparedness and mitigation measures.



Relief group

- b) The State Government Relief group constitutes a State Executive Committee (SEC) to assist the SDMA in the performance of its functions. The SEC is headed by the Chief Secretary to the State Government and coordinates and monitor the implementation of the National Policy, the National Plan and the State Plan. The SEC also provides information to the NDMA relating to different aspects of Disaster Management.

2.3 District Disaster Management Authority (DDMA)

- a) The DDMA is headed by the District Collector, Deputy Commissioner or District Magistrate as the case may be, with the elected representative of the local authority as the Co-Chairperson.
- b) The DDMA acts as the planning, coordinating and implementing body for DM at the District level and, takes all necessary measures for the purposes of DM in accordance with the guidelines laid down by the NDMA and SDMA. It prepares the District DM plan

for the District and monitors the implementation of the National Policy, the State Policy, the National Plan, the State Plan and the District Plan.

- c) The DDMA also ensures that the guidelines for prevention, mitigation, preparedness and response measures laid down by the NDMA and the SDMA are followed by all the Departments of the State Government at the District level and the local authorities in the District.

Local Authorities

For the purpose of this Policy, local authorities include Panchayati Raj Institutions (PRI), Municipalities, District and Cantonment Boards, and Town Planning Authorities ensures capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas and prepares DM Plans in consonance with the guidelines of the NDMA, SDMA and DDMA.

2.4 National Disaster Response Force (NDRF)

- a) For the purpose of specialised response to a likely disaster situation or disasters/emergencies both natural and man-made such as those of CBRN origin, the Act has mandated the constitution of a National Disaster Response Force (NDRF). The general superintendence, direction and control of this force is vested in and exercised by the NDMA and the command and supervision of the Force vests in an officer appointed by the Central Government as the Director General of Civil Defence and National Disaster Response Force.
- b) Presently, the NDRF comprises eight battalions and further expansion may be considered in due course. These battalions are positioned at different locations as are required. NDRF units maintains close liaison with the designated State Governments and is available to them in the event of any serious disaster situation. While the handling of natural disasters rests with all the NDRF battalions, four battalions are also equipped and trained to respond to situations arising out of CBRN emergencies.
- c) The NDRF units also impart basic training to all the stakeholders identified by the State Governments in their respective locations.



- Note: 1. This diagram reflects interactive linkages for synergised management of disasters and not a hierarchical structures.
2. Backward and forward linkages, especially at the functional level, are with a view to optimise efficiency.
3. Participation of the community is a crucial factor.

3. Types of Natural Disasters

Since the dawn of civilization, the society, natural environment and disasters have been closely interlinked. Natural disasters and the increasing environment degradation world-wide are serious threats to development. Natural disasters threaten all three dimensions of development include economic, social and environmental. In the past twenty years, earthquakes, volcanic eruptions, landslide, floods, tropical storms, droughts and other natural calamities have killed over three million people, inflicted injury, disease, homelessness and misery on one billion others, and caused billions of dollars of material damage. 90 percent of the natural disasters and 95 percent of the total disaster-related deaths world-wide, occur in the developing countries.

The term disaster is commonly used to denote any odd event '*natural or man-made*' which brings about immense misery to a region and it becomes difficult to cope with the situation through local resources.

3.1 Classification of Disasters

Disasters can be classified based on nature of onset (rapid/ slow), natural and manmade:-

a) Natural disasters:

- i) **Wind related** - storms, cyclones, tornados, and tidal waves.
- ii) **Water related** - Floods/flash floods, cloudburst, excessive rains and drought.
- iii) **Earth related-** Earthquakes, Tsunamis, Avalanches, Landslides and volcanic eruptions.



Natural Disaster

(b) Man-made disasters: These can be classified as under:

- i) Accidents- Road, rail, air, sea accidents or building collapse.
- ii) Industrial mishaps-gas leaks, explosion, sabotage and safety breaches.
- iii) Fires: In buildings, coal fields or oil/gas fields and oil/gas storage depots.
- iv) Forest fires: In tropical countries, forest fires are often manmade.



Serial Blast

- v) Contamination/Poisoning:
Incidents of mass food poisoning, water contamination, illicit-liquor poisoning and epidemics.
- vi) Terrorists Activities: Serial Blasts /explosions in public transport or markets.
- vii) Ecological: Pollution of air, water, noise, soil degradation, loss of biodiversity, global warming, sea level rise, toxic wastes and nuclear accidents.
- viii) Warfare: Conventional, chemical, biological or nuclear.



Smothering

3.2 Types of Natural Disasters

Volcanoes

The word “volcano” comes from the Latin word ‘*vulcan*’, the Roman god of fire. Volcanoes erupt when the lower levels of the earth’s crust push up hot magma causing the volcano to burst through the top layer of the earth. When a volcano erupts, magma, ashes, and other gases are released and pushed upward from beneath the earth’s surface. The melted molten rock is called ‘*lava*’ when above the surface, and is referred to as ‘*magma*’ when below the surface. When a volcano erupts, the molten rock that is spewed from the volcano builds up and begins to form a mountain-like structure. Because the molten lava is so hot, sometimes reaching over 2,000 degrees Fahrenheit, anything that it comes in contact with it gets burnt or melt. The volcano can spew lava, dust, ashes, and deadly gases. After the molten lava cools down, it hardens and turns into hard molten rock. The ash that is sent from the top of the volcano can be carried hundreds of miles by the wind. Volcanoes can be both, active or dormant volcanoes and can be found both, on land or under the sea.



Active Volcano

Landslides



Landslides

Landslides are mostly caused by movement in the ground and the force of gravity pulling down on all earthly objects. Landslides can also be caused by heavy rain, earthquakes, and even some man-made causes such as road work. Landslides usually consist of falling rocks and sliding earth in addition to failure in the Earth's surface. Landslides often occur in conjunction with other natural disasters such as volcanic eruptions, earthquakes, and other faults in the earth. Effects of landslides include collapsing buildings, collapsing roads sometimes causing death.

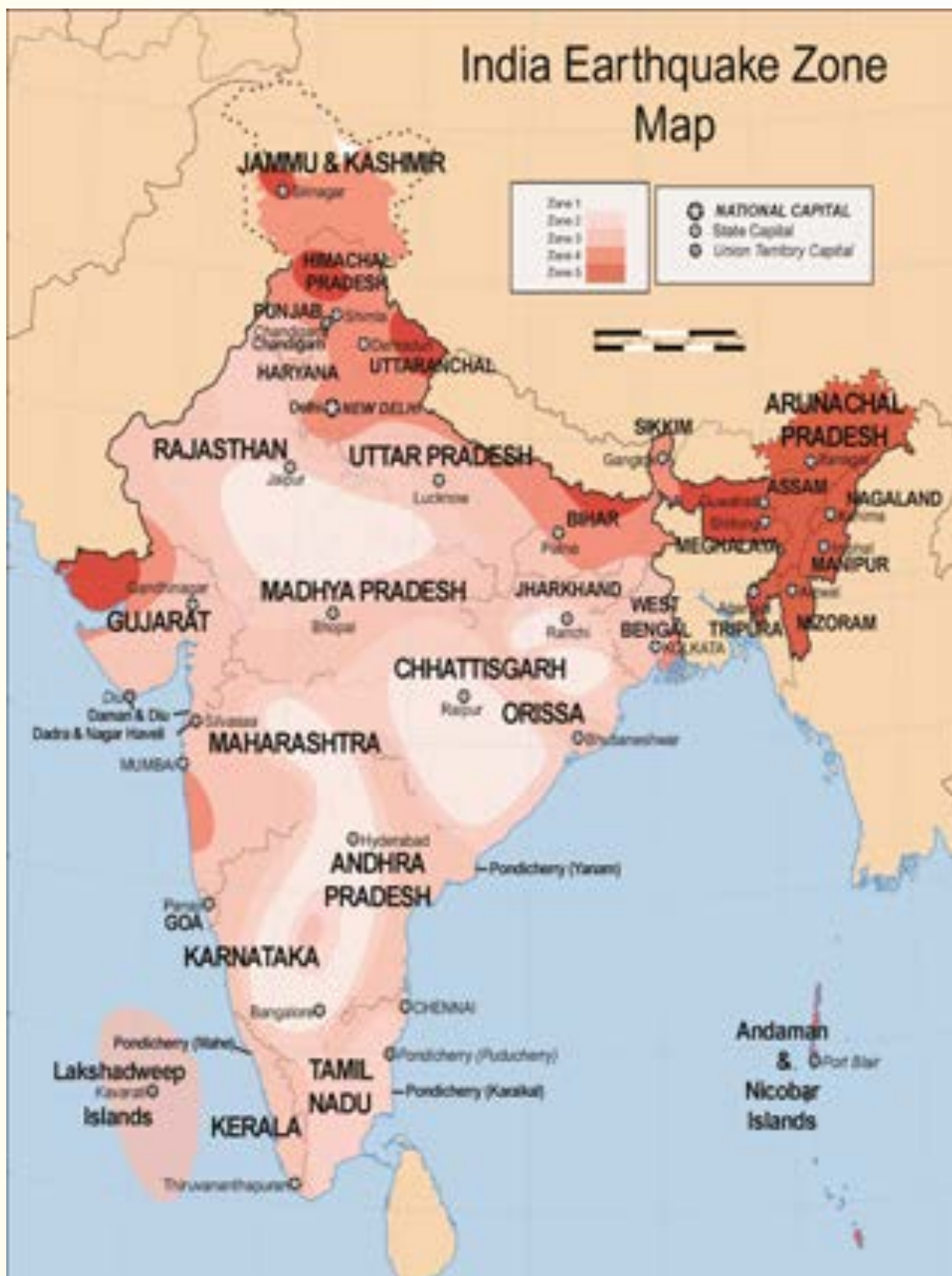
Earthquakes

Earthquakes are one of the many powerful natural disasters caused when there is a shift, collision, or sudden release of energy in the Earth's crust. Sometimes called 'tremors' and 'temblors', earthquakes usually occur on the boundaries of, or near, the lines where the Earth's tectonic plates collide and slide past each other. This is called a fault line. Changes in the Earth's surface usually result in earthquakes. Earthquakes consist of

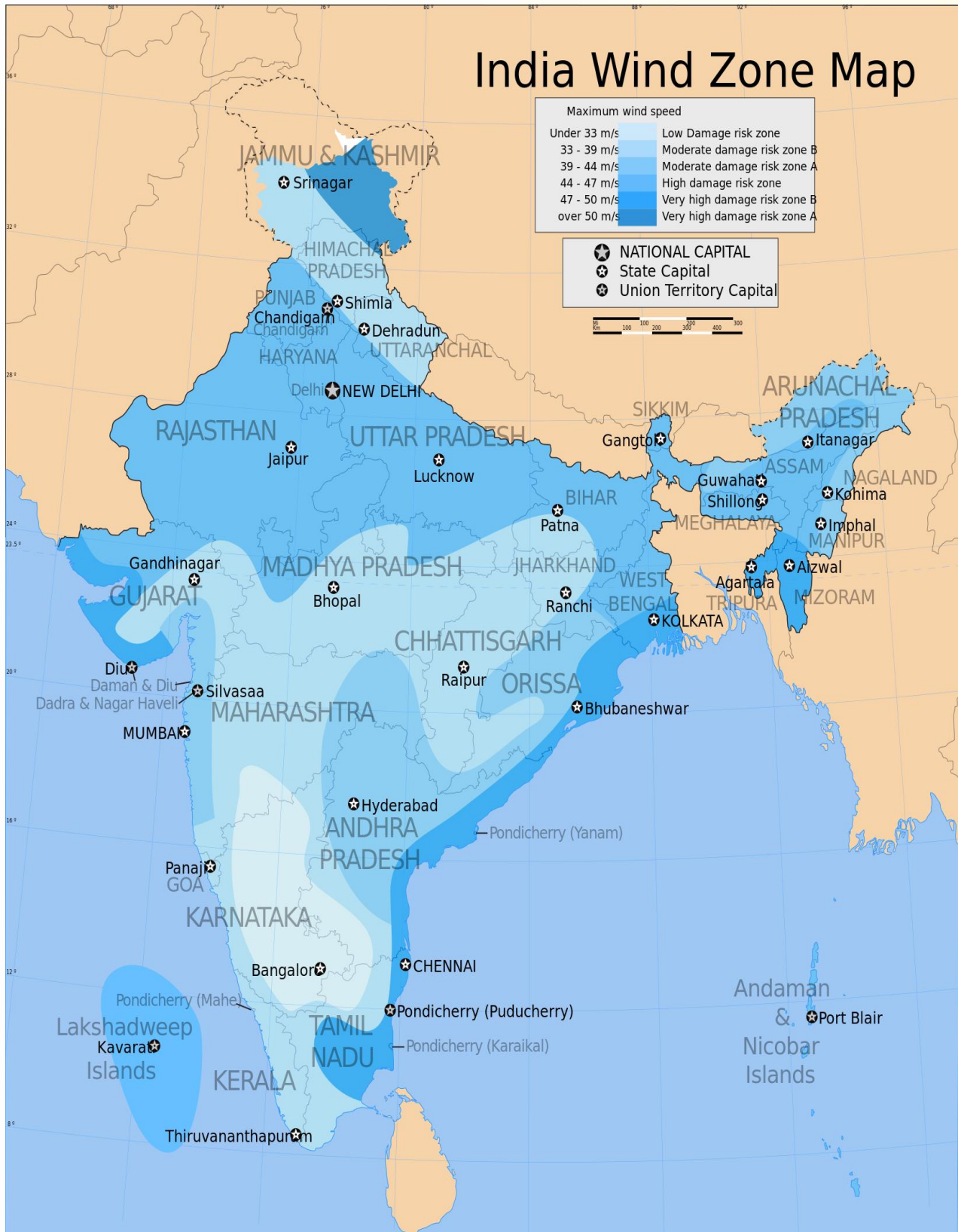


Earthquake

shaking and displacement of the ground. Depending on the intensity of the earthquakes, they can cause buildings to collapse, which sometimes result in fatalities. The *Richter Magnitude Scale* is used to classify and measure the magnitude of earthquakes. The *Richter Scale* was invented by *Charles F. Richter* in 1935, and it has a scale from 1-9.



Earthquake Risk Zone Map



Wind & Cyclone Zones

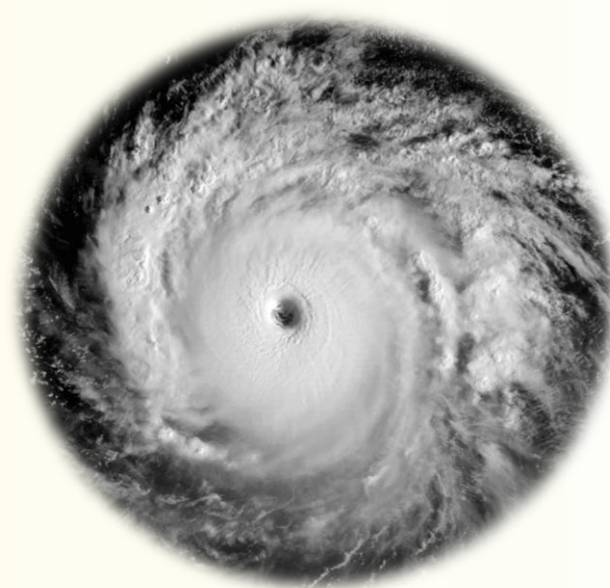
Tsunamis

"Tsunami" is a Japanese word meaning "harbor wave." Tsunamis usually take place in the ocean, but can also occur in large lakes. Caused by an underwater earthquake, volcano, landslide, or other type of explosion, tsunamis are giant waves that can destroy entire cities. Tsunamis can range anywhere from a few inches to several yards high. Some large tsunamis have been as tall as 100 feet while some have been less than 20 feet tall and still have caused extensive damage. These great walls of water can gain speed as they approach the shore, sometimes up to 500 miles per hour. Tsunamis have tremendous destructive power and can destroy hundreds of lives and homes each year.



A Tsunami

Hurricanes



A Hurricane

Sometimes called 'Tropical Cyclones', 'Typhoons', or 'Willy-Willies', it can rip up trees, destroy crops, and flatten buildings. Torrential rain causes flooding and coastal regions may be swamped by huge waves whipped up by winds that blow as fast as 300 km/h (185 mp). Hurricanes start to form when the sun's heat stirs up most air over the oceans, where the temperature is more than 27°C (80°F). At first, the ring of low pressure at the centre of the storm, called the 'eye', can be more than 300 km/h (185 mile) across and winds only gale force. But as the eye narrows to about 50 km (30 miles) across, the winds begin to swirl around it at a hurricane force. Cyclones pose a major threat to lives and property in many parts of the world.

Floods

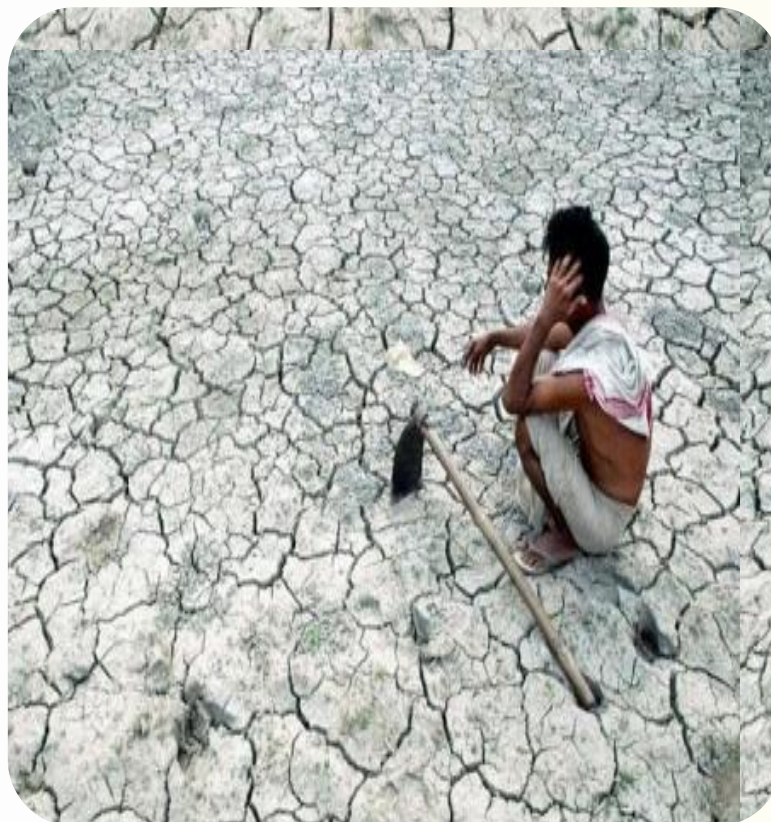
It can arise from abnormally heavy precipitation, dam failures, rapid snow melting, river blockages or even burst water mains. It is usually sudden in onset. Types of floods can further be classified into Inland and Coastal floods. Major floods result in physical damage, deaths and injuries, problems in drinking water supply and food shortages and displacement of population.



Flood Relief Operation

Droughts

If, over about two weeks, there is less than 0.2 mm (1/100in) of precipitation, there is said to be a drought. Without reservoirs, there is not enough water for people and crops. Some places have extreme drought which lasts for many terms. Droughts have disastrous and long term impact on the economy and can affect a large segment of the society which may last for months and in some cases several. Generally, drought situation may be defined as a temporary reduction in water or moisture availability significantly below the normal or expected amount for a specific period. Drought is a slow onset phenomenon.



Droughts



4. Assistance during Natural and other Calamities

India is a large land form with peculiarity of varied geographical features. It has many rivers flowing through it and is surrounded by sea on its three sides and the high mountain ranges to its North. Though this makes India unique, it also brings along variety of climatic and weather changes and other geographical phenomenon. Floods, cyclones, earthquakes and Tsunamis have occurred in the country from time to time. These natural disasters cause unimaginable damage to people and property, devastating lives of large number of our countrymen. It is therefore, imperative that management during natural disasters be given utmost importance.

Effects of Natural /Other Calamities:

- Excessive loss of life/injuries due to flood, earthquake, tsunami etc.
- Inundation of cities/towns/villages or the country side, displacing hundreds of people, making them homeless or migrate to safer places.
- Marooning of villages/houses/people.
- Destruction/collapsing of houses/buildings in villages/towns.
- Total disruption of all essential services like communication, electricity, water and health services.
- Severe damage to road/rail network including damage to bridges.
- Displacement/loss of domestic and wild animals.
- Destruction of crop/livelihood



Natural Calamities

The following types of assistance are required during natural/other calamities:

- Setting up of information centres/reactivation of telecom services.
- Re-establishment of road/ rail communication.
- Establishment of relief camps / shelters.
- Casualty Evacuation and Rescue.
- Establishment of Medical Camp and providing First Aid.
- Establishment of Sanitation Services.
- Establishment and distribution of Relief Material including food and water.
- Carcass Disposal.
- Patrolling and Liaison.
- Searching for casualties/survivors of air crash accidents in remote areas.



Air crash accident



Medical Assistance

4.1 Assistance by NCC during Natural and other Calamities

The organisation for providing assistance during natural/other calamities is the existing organisation of NCC. To carry out disaster rescue and emergency relief operations readily with utmost speed, the state ADG/DDG are the decision maker, who act autonomously, keeping DG NCC informed. The executors are the Group Commanders/Unit Commanders who maintain close liaison with the DDMA authorities.

Method of Providing NCC Assistance

Immediately on receiving any requisition for providing NCC assistance from the district authorities, the CO Unit/Group Commander takes the following actions:

- Muster adequate number of SD/JD cadets along with the ANOs and PI Staff. Using all means of communication, the ANOs ensure that their cadets assemble in the shortest possible time.
- Organise various action groups of 20-30 cadets under an ANO and a PI Staff.
- Carryout proper briefing of the cadets about the impending task.
- Allocate and handover the action groups to the various agencies for providing assistance.

Creation of Groups

- Traffic Control Group:** This group provides assistance to traffic police.
- Relief Groups:** This group provides assistance to collect and distribute relief material such as food supply, cloth, kerosene, diesel, utensils etc. and coordinate all the relief requirement of the other action groups.



Evacuation and Rescue Groups

- Shelter Management Group:** This group is employed for establishment or looking after shelters and safe houses, providing the evacuees' food, water and medication. This group can also coordinate with the government authorities to ensure that, the health and nutritional facilities are available for the extra vulnerable groups, like women and children.
- Evacuation and Rescue Groups:** The members of this group have to be physically strong (both SD and SW), and should be trained in basic evacuation and rescue method. The members of this group coordinate with state government to get facilities for rescue and evacuation in terms of rescue training, rescue infrastructure and equipment.

- e) **First Aid Medical Groups:** There should be equal number of JD/SD and JW/SW cadets in this group. Those with some knowledge of nursing will be preferable. The members will have to go through intensive training and drills for first aid.
- f) **Sanitation Groups:** This group consists of girl and boy cadets, who look after the sanitation responsibilities, both at the shelter as well as outdoors.
- g) **Carcass Disposal Groups:** Rafting and in dispersed carcasses create unhygienic conditions and have to be disposed off immediately. Their disposal becomes an extremely important task. The members of this group have to be psychologically and physically able to carry out this task and should have been medically protected. They will be imparted appropriate training for carrying out this task. If possible the Civil Defence Volunteers, members from the NSS\boys Scouts can be included in this group.

SUMMARY

Civil Defence and Disaster management are important activities both during peace (natural disasters) and during war. NCC with its vast trained resource can play an important role and help in both, the Civil Defence and the Disaster management.

Civil Defence measures mainly consist of:

- *Protective preventive Measures*
- *Control Measures*
- *Restorative Measures*

Civil Defence Corps has the following 12 services in which volunteers are trained:

- *Headquarters Service*
- *Warden's Service*
- *Fire Fighting Service*
- *Casualty Services*
- *Communication Services*
- *Rescue Services*
- *Welfare Services*
- *Depot and Transport Services*
- *Salvage Service*
- *Corpse Disposal Service*
- *Supply Service*
- *Repair and Demolition Parties*

On 23 December 2005, the Government of India took a defining step by enacting the Disaster

Management Act of India, which envisaged the creation of the National Disaster Management Authority (NDMA), headed by the Prime Minister.

Classification of Disasters:

i) Natural disasters:

- Wind related
- Water related
- Earth related

ii) Man-made disasters

- Accidents
- Industrial mishaps
- Fires
- Forest Fires
- Contamination/poisoning
- Terrorists activities
- Ecological destruction
- Warfare

Smothering means 'choking' or restricting the supply of oxygen (Air) to the burning material.

Natural disasters and the increasing environment degradation world-wide are serious threats to development. Natural disasters threaten all three dimensions of development which include economic, social and environmental. Natural calamities have killed over three million people, inflicted injury, disease, homelessness and misery on one billion others. It is therefore important for all of us to be fully aware of the various types of Natural Disasters and take measures to minimize losses of all types.

Natural / other calamities which occur without much notice, cause excessive damage to people and property. However, if we are well organized and prepared, then the losses in human lives can be reduced by providing timely assistance to the needy.

Types of Natural Disaster:

- Volcanic eruption
- Landslides
- Earthquakes
- Tsunamis
- Hurricanes
- Floods
- Droughts

Comprehensions Questions

Q1. Answer the following in about 15 words:

- i) When was the Civil Defence Act of India enacted by the Parliament?
- ii) Why is Civil Defence a much misunderstood subject?
- iii) What does the Civil Defence organization basically comprise of, at the national level?
- iv) What happened on 23 December 2005?
- v) Which local authorities control and manage civic services?
- vi) What are the serious threats to development?
- vii) Define 'disaster'.
- viii) What is the basis of classification of disasters?
- ix) Define the term 'Tsunami'.
- x) Give other three names for hurricanes.
- xi) What are the effects of natural disasters?
- xii) Write any one major effect of natural calamities.
- xiii) Who will act as the decision maker to carry out disaster rescue and emergency relief operations?
- xiv) Write about any one group of NCC cadets to be created for providing assistance.
- xv) Write about any two types of assistance required during natural/other calamities.

Q2. Answer the following in about 50 words:

- i) Which two significant events led to the establishment of Civil Defence in India?
- ii) What do disasters result in?
- iii) What is the present target of Civil Defence volunteers? How many are already being raised and trained? Who administers and trains the volunteers?
- iv) What are communication services responsible for? Give three points.
- v) Mention any two things that NDMA is responsible for at national level.
- vi) Name the different types of natural disasters with examples.
- vii) Describe the following man-made disasters:
 - a) Industrial mistakes
 - b) Terrorist attacks

- c) Contamination/poisoning
- viii) Write a short note on floods.
- a) What is smothering?
- b) What is drought?

Q3. Answer the following in about 75 words:

- i) What control and restorative measures are carried out by the Civil Defence?
- ii) Write short notes on:
 - a) Warden's Service
 - b) Supply Service
 - c) Welfare Services
- iii) 'India is vulnerable'. Explain the statement in light of the importance of Disaster Management in India? Who heads NDMA at national level? What is NDMA mandated to deal with?
- iv) a) Explain the State level Organisation of Civil Defence. Mention any two responsibilities of Controller of Civil Defence in a District.
b) What is National Executive Committee (NEC)?
- v) What are the responsibilities of National Executive Committee (NEC)?
- vi) What are the twelve services of the Civil Defence in which volunteers are trained? Explain any three of them.
- vii) a) What are the functions of the DDMA (the District Disaster Management Authority)?
b) What is to be ensured by the District Disaster Management Authority (DDMA)?
- viii) Write three differences between landslide and earthquake.
- ix) Write a note on drought.
- x) How does the phenomenon of hurricane take place?
- xi) Write about any five major effects of natural calamities.

Q4. Answer the following in about 150 words:

- i) Make a comparison of organization of Civil Defence at national level and National Executive Committee (NEC)?
- ii) a) What is SDMA? Who heads it and what does he do? What are the responsibilities of SDMA?

- b) Why is State Executive Committee constituted? Who heads the committee? What are its functions?
- iii) a) What role is played by local authorities to assist in effective implementation of guidelines laid down by NDMA and SDMA?
- b) Draw a flow chart of Civil Defence Organization at State Level.
- iv) How does Civil Defence helps to make you a good and responsible human being?
- v) What is the meaning of the word 'volcano'? Describe the process of volcanic eruption in detail?
- vi) Describe the phenomena of Tsunami.
- vii) 'The overall command and control of the operation rests with the group commander'. Explain the statement in light of the role played by group commander during execution of relief measures with the help of suitable examples

Q5. Answer the following in about 250 words:

- i) Explain the responsibilities of NDMA? Write five points
- ii) Why did National Disaster Response Force (NDRF) come into existence? Explain in detail about its composition and functions.
- iii) 'If we are well organized and prepared, then the losses in human lives can be reduced by providing timely assistance to the needy'. Explain the statement by highlighting the role of NCC organization and especially the role played by NCC cadets. Substantiate your answer from your own life experiences or any real incident.

Let's Discuss:

Q6. HOTS (Higher Order Thinking Skills)

- i) How can you contribute in an effective manner during any kind of crisis to assist Civil Defence and the Disaster management?
- ii) What precautions should be taken in schools to educate children during an earthquake?
- iii) Which life skills are enhanced by working as responsible volunteers during any calamity?
- iv) What will be your effective strategy to make a group of NCC cadets work in an efficient way during the call of emergency?
- v) How far do you think, due recognition is a positive force, to drive the cadets to perform in an effective manner?

Activities:

1. Suppose about 50 people are trapped in a building which has caught fire. What control and rescue measures taught by the NCC will you adopt to handle the situation? Also, list the rescue measures including the first aid that will be provided.
2. Recently Uttarakhand was ravaged by a natural disaster. Initiate a discussion on the 'Role of human beings in the growing number of natural disasters.'
3. Make a Power point Presentation on any two natural disasters. Work in pairs for the same. Use 10-12 slides to include the reasons, control and preventive measures taken. Show the presentation to the class.
4. Identify and talk about the probable natural disasters in the area that you reside in is prone to. Discuss the precautions that are undertaken to minimize the effects of the disaster.
5. Celebrate National Cadet Corps Day (4th Sunday of November) in your school by holding a talk by an NCC Officer. Also, organize a debate highlighting the need to be prepared in the face of disasters-' A stich in time, saves nine'.