

## “AI” Model ANSWERS to MODEL Questions

### Disaster Management UNIT – 2 - Questions and Model ANSWERS

CIVL2281	Disaster Management	L	T	P	S	J	C
		3	0	0	0	0	3

#### UNIT 2

**Approaches to Disaster Risk Reduction:** Phases and activities of disaster management cycle, Prevention, Mitigation and Preparedness, Community based disaster risk reduction, Structural and Non-structural measures, roles and responsibilities of community, Panchayat Raj Institutions / Urban Local Bodies, States, Centre.

‘Disaster Management’ means creating and implementing preparedness and plans to decrease the impact of future disasters.

**UNISDR- United Nations International Strategy for Disaster Reduction**

The UNISDR defines **disaster risk management** as the **systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities** of the society and communities **to lessen the impacts of natural hazards** and environmental and technological related **disasters**.

#### **Q 1) Explain in detail the "Approaches to Disaster Risk Reduction".**

**Approaches to Disaster Risk Reduction (DRR)** refer to the different strategies and methods used to minimize the vulnerabilities and disaster risks in society. These approaches aim to reduce the impact of disasters on lives, livelihoods, infrastructure, and the environment. DRR is a holistic and multi-dimensional effort that involves proactive planning and action across various sectors.

**The main approaches to Disaster Risk Reduction:**

---

##### 1. Prevention

- **Definition:** Measures taken to avoid the occurrence of disasters entirely.
- **Examples:**

- Land-use planning to avoid building in flood-prone areas.
  - Enforcing building codes in earthquake-prone zones.
  - Ban on deforestation in landslide-prone regions.
- 

## 2. Mitigation

- **Definition:** Structural and non-structural measures to minimize the adverse impacts of disasters.
  - **Examples:**
    - Building embankments or levees for flood control.
    - Retrofitting old buildings to withstand earthquakes.
    - Public awareness campaigns on disaster preparedness.
- 

## 3. Preparedness

- **Definition:** Actions and planning to ensure an effective response before a disaster strikes.
  - **Examples:**
    - Early warning systems.
    - Mock drills and training programs.
    - Community emergency response teams (CERTs).
- 

## 4. Response

- **Definition:** Immediate actions taken during and just after a disaster to ensure safety and provide relief.
  - **Examples:**
    - Evacuation and search and rescue.
    - Emergency medical aid and relief distribution.
    - Temporary shelters for displaced populations.
- 

## 5. Recovery

- **Definition:** Restoration and improvement of facilities, livelihoods, and living conditions after a disaster.
  - **Examples:**
    - Rebuilding homes and infrastructure.
    - Psychological counseling for affected people.
    - Livelihood restoration programs.
- 

## 6. Resilience Building

- **Definition:** Strengthening the capacity of communities to resist, absorb, and recover from disasters.
  - **Examples:**
    - Promoting community-based disaster management (CBDM).
    - Investing in social safety nets.
    - Capacity building at local governance levels.
-

## 7. Risk Assessment and Mapping

- **Definition:** Identification, analysis, and evaluation of disaster risks.
  - **Examples:**
    - Hazard mapping using GIS.
    - Vulnerability assessments of infrastructure and populations.
    - Climate risk analysis.
- 

## 8. Mainstreaming DRR into Development Planning

- **Definition:** Integrating disaster risk reduction strategies into all levels of development policy and planning.
  - **Examples:**
    - Including DRR in urban planning and infrastructure projects.
    - Disaster-resilient agriculture and water management.
    - Budget allocations for DRR in government schemes.
- 

## 9. Community-Based Disaster Risk Reduction (CBDRR)

- **Definition:** Empowering local communities to assess risks and implement locally appropriate DRR actions.
  - **Examples:**
    - Local disaster committees.
    - Traditional knowledge combined with modern techniques.
    - Participatory risk mapping.
- 

## 10. Technology and Innovation in DRR

- **Definition:** Use of modern tools and innovations for improving DRR effectiveness.
  - **Examples:**
    - Satellite-based monitoring and early warning.
    - Mobile apps for disaster alerts.
    - Drones for rapid damage assessment.
- 

### Conclusion:

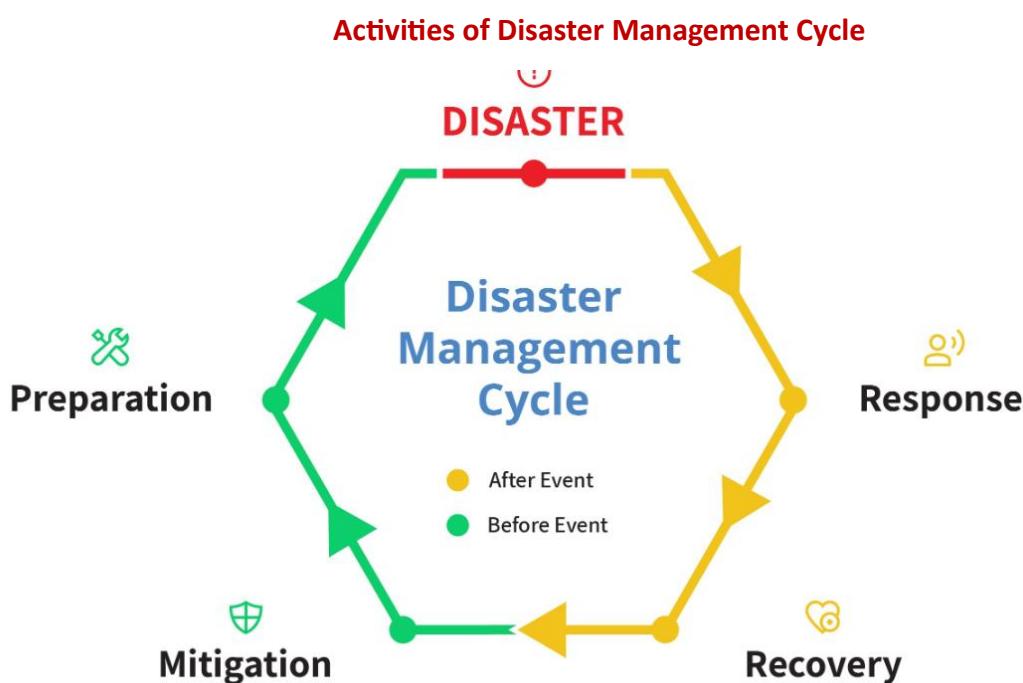
Disaster Risk Reduction requires a **comprehensive, multi-sectoral, and multi-level approach**, involving government, private sector, communities, and individuals. Shifting focus from reactive disaster response to proactive risk reduction and resilience building is key to minimizing future losses.

**Q 2) Write in detail the "Phases and activities of Disaster Management Cycle".**

**There are three key phases** in disaster management:

- A) Pre – Disaster: Preparedness or Readiness i.e. total preparation and planning to face any type of disaster.
- B) During Disaster: Immediate Response to save / protect the people.
- C) Post -Disaster: Recovery and Re-build after a disaster to quickly bring (the people, locality and infrastructure) back to normal condition and also to achieve the resilient condition.

The **Disaster Management Cycle** represents a continuous process through which individuals, communities, organizations, and governments prepare for, respond to, recover from, and mitigate the effects of disasters. It is typically divided into **four main phases**, each encompassing specific activities aimed at reducing disaster impact and enhancing community resilience.



### 1. Mitigation Phase (Before Disaster)

**Objective:** Reduce or eliminate the long-term risk to human life and property from disasters.

◆ **Key Activities:**

- **Risk assessment and hazard mapping:** Identifying vulnerable areas and populations.
- **Zoning and land-use planning:** Restricting construction in hazard-prone areas (e.g., floodplains, coastal zones).

- **Building codes and safety standards:** Enforcing structural designs that resist earthquakes, floods, etc.
  - **Environmental management:** Afforestation, watershed management, preserving wetlands.
  - **Community education and public awareness:** Promoting a culture of prevention.
- 

## 2. Preparedness Phase (Before Disaster)

**Objective:** Establish and enhance the capacity to respond effectively when a disaster occurs.

◆ **Key Activities:**

- **Early warning systems:** Installing and maintaining systems for cyclones, tsunamis, floods, etc.
  - **Evacuation plans:** Developing and rehearsing plans for safe and timely evacuation.
  - **Training and drills:** Regular mock exercises for emergency services and communities.
  - **Resource inventory:** Identifying and stockpiling emergency supplies (food, water, medicine).
  - **Emergency communication systems:** Setting up alternative channels like satellite phones or radios.
- 

## 3. Response Phase (During and Immediately After Disaster)

**Objective:** Provide immediate assistance to maintain life, improve health, and support the morale of the affected population.

◆ **Key Activities:**

- **Search and rescue operations:** Locating and rescuing victims.
  - **Medical aid and first aid:** Treating injuries and preventing disease outbreaks.
  - **Relief distribution:** Providing food, water, shelter, clothing, and sanitation.
  - **Damage assessment:** Rapid evaluation of affected areas and estimation of needs.
  - **Coordination and information management:** Managing volunteers, media, and aid flow.
- 

## 4. Recovery Phase (After Disaster)

**Objective:** Restore the affected community to normal or better conditions while reducing future risk.

◆ **Key Activities:**

- **Reconstruction and rehabilitation:**
  - **Short-term:** Temporary shelters, restoring basic services (electricity, water).

- **Long-term:** Rebuilding homes, schools, hospitals, roads, and public infrastructure.
- **Economic and livelihood recovery:** Supporting businesses, agriculture, and employment.
- **Psychosocial support:** Counseling services to deal with trauma.
- **Policy and legal reforms:** Updating disaster management policies based on lessons learned.

Phase	Main Objective	Key Activities
<b>Mitigation</b>	Minimize future risks	Risk assessment, regulations, infrastructure, awareness
<b>Preparedness</b>	Ready before disaster	Training, early warning, planning, stockpiling, drills
<b>Response</b>	Save lives during disaster	Rescue, relief, shelter, medical aid, communication
<b>Recovery</b>	Restore and rebuild after disaster	Reconstruction, rehabilitation, livelihood support, evaluation

The **Disaster Management Cycle** promotes a proactive and structured approach to reducing disaster risk and managing emergencies. **Integration of all phases**—from mitigation to recovery—ensures a **resilient, prepared, and adaptive society**. Each phase complements the other, emphasizing the importance of **continuous learning, coordination, and community participation** in disaster management.

### **Q 3) Describe in detail “Community based disaster risk reduction”.**

**Community-Based Disaster Risk Reduction (CBDRR)** is a people-centered approach that empowers communities to take charge of their own safety and well-being in the face of disasters. It is a crucial strategy for building resilient communities and achieving sustainable development.

**Community-Based Disaster Risk Reduction (CBDRR)** is an approach that empowers local communities to actively participate in reducing their vulnerability to disasters and enhancing their resilience. It recognizes that communities are the first responders in a disaster and emphasizes their involvement in all stages of disaster management, from preparedness to recovery. CBDRR aims to reduce the impact of disasters on vulnerable populations by leveraging their knowledge, resources, and capacity.

#### **Core Principles of Community-Based Disaster Risk Reduction (CBDRR):**

- **Community Ownership:**

CBDRR places the community at the center of the process, giving them ownership and leadership in identifying risks, developing solutions, and implementing actions.

- **Inclusivity:**

It ensures the participation of all social groups, including marginalized and vulnerable populations, to address their specific needs and vulnerabilities.

- **Capacity Building:**

CBDRR focuses on building the capacity of communities to prepare for, respond to, and recover from disasters. This includes strengthening their knowledge, skills, and resources.

- **Local Knowledge:**

It recognizes and utilizes the valuable local knowledge and experience of community members, which is often crucial for effective disaster risk reduction.

- **Partnerships:**

CBDRR emphasizes collaboration and partnerships among various stakeholders, including community members, local authorities, NGOs, and other relevant organizations.

### **Key Components of Community-Based Disaster Risk Reduction (CBDRR):**

#### **1. Disaster Risk Assessment:**

Communities actively participate in identifying and assessing potential hazards, vulnerabilities, and capacities within their area. This involves understanding the types of disasters that could affect them, the potential impacts, and the resources available to cope with them.

#### **2. Preparedness Planning:**

Communities develop and implement preparedness plans based on their risk assessments. This includes establishing early warning systems, stockpiling essential supplies, conducting drills, and developing evacuation plans.

#### **3. Mitigation Measures:**

Communities implement measures to reduce the impact of disasters, such as strengthening infrastructure, implementing land-use planning, and promoting sustainable livelihoods.

#### **4. Response and Recovery:**

Communities play a crucial role in responding to disasters, providing immediate assistance to those affected, and participating in recovery efforts. They also play a vital role in rehabilitation and reconstruction.

#### **5. Capacity Building:**

Communities receive training and support to enhance their knowledge, skills, and resources for disaster risk reduction. This includes training in first aid, search and rescue, and emergency communication.

### **Benefits of Community-Based Disaster Risk Reduction (CBDRR):**

- **Reduced Loss of Life and Property:**

By being prepared and equipped to respond to disasters, communities can significantly reduce the loss of life and property damage.

- **Increased Resilience:**

CBDRR strengthens the ability of communities to withstand and recover from disasters, reducing their vulnerability to future events.

- **Empowered Communities:**

It empowers communities by giving them control over their own safety and security.

- **Sustainable Development:**

By integrating disaster risk reduction into development planning, CBDRR contributes to sustainable development goals.

- **Effective Resource Management:**

It promotes the efficient use of local resources and capacities, leading to more effective disaster management.

- **Community Ownership:**

It fosters a sense of ownership and responsibility among community members, making them active participants in building a safer and more resilient future.

### **Steps in Community-Based Disaster Risk Reduction (CBDRR):**

#### **1. Community Profiling and Risk Assessment**

- Mapping hazards, vulnerabilities, and capacities using tools like:
  - Hazard maps
  - Vulnerability and capacity assessments (VCA)
  - Seasonal calendars
  - Historical disaster timelines

#### **2. Awareness and Capacity Building**

- Education and training on disaster preparedness.
- Community drills, school safety programs.

- Formation of local disaster management committees (DMCs).

### 3. Planning and Strategy Development

- Developing **Community Disaster Management Plans (CDMP)**.
- Identifying safe evacuation routes, shelters, and response mechanisms.

### 4. Implementation of Mitigation and Preparedness Measures

- Strengthening houses, water harvesting, tree planting, etc.
- Local early warning systems and communication networks.

### 5. Networking and Institutional Linkages

- Collaboration with NGOs, local government bodies, and disaster management authorities.
- Accessing funding and technical assistance.

### 6. Monitoring, Evaluation, and Learning

- Periodic reviews and updates to community plans.
- Sharing of best practices and lessons learned.

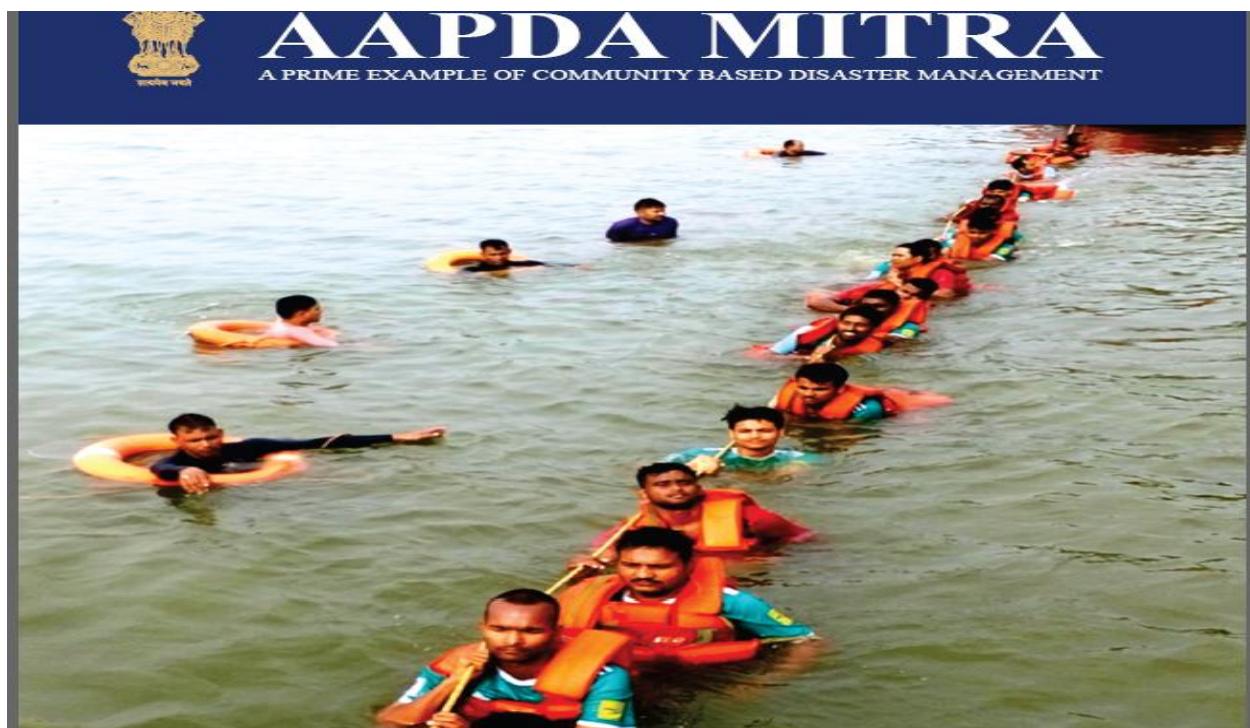
Component	Description
Local Leadership	Strong participation of community leaders and volunteers.
Education & Training	Awareness campaigns, school programs, and public participation.
Local Knowledge Integration	Traditional coping mechanisms integrated with scientific knowledge.
Inclusiveness	Equal representation of gender, age groups, and social classes.
Sustainability	Environmentally friendly and socially acceptable solutions.

Community based DRR is a process of bringing people together within the same community to enable them **to collectively respond and rescue for Disaster preparedness towards achieving a safe and resilient community.** “Training”.

**Example:** People living in River plain area **can predict the increase of river flow and possible floods** with their experience. Using the indigenous knowledge these fisher-man have the **skill of making quick boats using banana shaft** to protect their family and valuables. (**Maintaining Air-filled Tubes, Knife, ropes, Battery light, Bamboo stick etc**)



Figure 3 - Women volunteers of Odisha learning water rescue skills in 2018





“ During the floods of 2019 in Kolhapur district in Maharashtra, with the training that I received via Aapda Mitra, my team and I were able to rescue women and children. I have always wanted to help people and I feel proud to be part of India's first woman rescue force for the community. ”

- Shubhangi Gharale,  
Aapda Sakhi, Kolhapur, Maharashtra

#### **CB DRR – Awareness & Training**



#### **Q 4) Describe in detail about “Structural and Non-structural measures”.**

**Structural and Non-structural measures** are two broad categories of risk reduction strategies aimed at minimizing the impacts of disasters on human life, infrastructure, and the environment.

Both **structural** and **non-structural measures** are essential and **complementary** components of disaster risk reduction. While structural measures provide physical protection, non-structural measures enhance preparedness, awareness, and resilience. An **integrated approach** that combines both is crucial for **effective disaster management** and sustainable development.

#### **Structural and Non-structural measures of DRR**

<b>Structural</b>	<b>Non-structural</b>
<ul style="list-style-type: none"><li>- Control over hazard</li><li>- Protection of human settlement</li></ul>	<ul style="list-style-type: none"><li>- Hazard mitigation/ avoidance</li><li>- Adjustment of human activities</li></ul>
<ul style="list-style-type: none"><li>- Sea walls, levees, structure of dams, break water, flood storage reservoirs, dikes, pumps, channel improvements and diversions, and groins</li><li>- Strengthening buildings through building codes</li><li>- Building shelters</li></ul>	<ul style="list-style-type: none"><li>- Land use management by planning tools (comprehensive plan, zoning, ordinance, incentives)</li><li>- Infrastructure policy</li><li>- Insurance</li><li>- Awareness (education, information dissemination) and partnership</li><li>- Protect natural areas (dunes, wetland, maritime forests, vegetation etc.)</li><li>- Risk reduction and preparedness policies</li></ul>

ed from Burby & French (1981); Alexander (1993); Moga (2002); William

#### **1. Structural Measures**

Structural measures are physical constructions or engineering interventions that aim to reduce or avoid possible impacts of hazards. These are tangible, technical measures designed to protect lives and property.

##### **Examples of Structural Measures:**

- 1. Flood Control Structures**
  - o Dams, levees, embankments, flood walls.
- 2. Cyclone and Storm Surge Protection**
  - o Cyclone shelters, sea walls, breakwaters.
- 3. Earthquake-Resistant Buildings and retrofitted bridges**
  - o Retrofitting structures, using seismic-resistant design codes.
- 4. Landslide Mitigation**
  - o Retaining walls, slope stabilization, drainage systems.
- 5. Fire Safety Infrastructure**

- Fire hydrants, sprinkler systems, fire-resistant materials.
- 6. **Drainage and Sewage Systems**
  - To prevent urban flooding and water contamination.
- 7. **Protective mangrove plantations:** Serve as natural barriers for coastal protection

#### **Advantages:**

- Direct and immediate protection.
  - Reduces physical damage and casualties.
  - Long-term infrastructure investment.
- 

## **2. Non-Structural Measures**

Non-structural measures are policies, practices, knowledge, and awareness initiatives that aim to reduce disaster risks without physical construction. These are often regulatory or educational in nature.

#### **Examples of Non-Structural Measures:**

1. **Laws and Policies**
  - Building codes, land-use zoning, environmental regulations.
2. **Early Warning Systems**
  - Weather forecasts, tsunami alerts, mobile SMS warnings.
3. **Public Awareness and Training**
  - School safety programs, mock drills, community training.
4. **Disaster Preparedness Plans**
  - Evacuation plans, emergency response protocols.
5. **Risk Assessment and Mapping**
  - Hazard zonation maps, vulnerability assessments.
6. **Insurance and Financial Tools**
  - Crop insurance, property insurance, disaster relief funds.
7. **Disaster Management Education in the Schools and Institutes**
  - Builds disaster-risk awareness and safe behaviors from a young age
8. **Community participation and voluntary preparedness organizations**
  - Empower local action and resilience
9. **Institutional frameworks and coordination systems**
  - Authorities like the National Disaster Management Authority, collaboration mechanisms, and emergency protocols

#### **Advantages:**

- Cost-effective and adaptable.
- Can be implemented faster.
- Empowers communities and promotes a culture of safety.
- Complements structural measures.

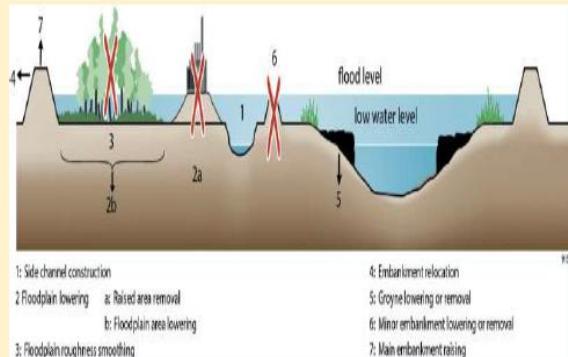
## Structural Measures to combat Floods – Dams



- Flood Control/ Protection
- Irrigation / Cultivation
- Increase in Water Supply
- Hydro-Power generation
- Secondary Development

Activate Windows  
Go to Settings to activate Windows

## Structural Measures to combat Floods – Flood Bank / Bund



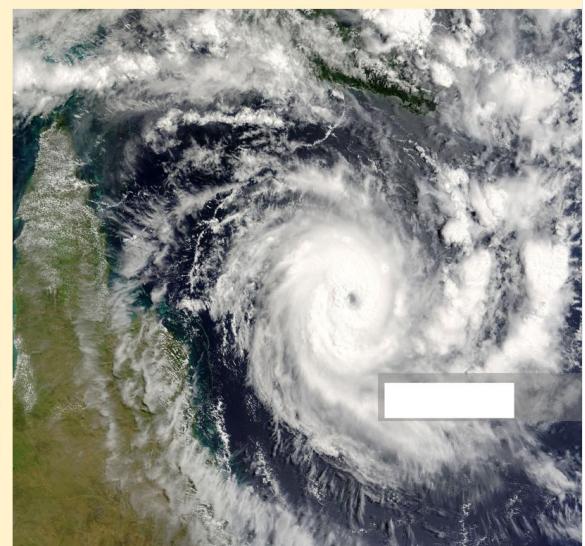
- Flood Banks Protects the adjacent Towns/ Cities from River Floods

## **Disaster Preparedness – Multipurpose Shelter**



## **Non-structural measures of DRR**

- Early Warning system
- Awareness of Local Disasters
- Training of DRR
- Emergency Action Plan
- City Master plan
- Education & Outreach
- Collaboration & Capacity Building
- Mock drill of Mitigation measures



## **Q 5) Roles and Responsibilities of the “Community” in Disaster Risk Reduction (DRR)**

**Communities are at the heart of Disaster Risk Reduction (DRR)**, serving as first responders and playing a crucial role throughout the disaster management cycle – before, during, and after an event.

**Communities** play vital role in the **Disaster Risk Reduction (DRR)** because they are the first to face the impacts of disasters and the first to respond. When communities are well-informed, organized, and empowered, they can significantly **reduce the risks and impacts** of disasters. Their participation enhances preparedness, response, recovery, and long-term resilience.

### **Role of Community in Disaster Risk Reduction (DRR)**

#### **1. Risk Identification and Assessment**

- Communities can **identify local hazards**, vulnerabilities, and resources.
- They possess **local knowledge** about patterns of flooding, landslides, drought, etc.
- Participating in **risk mapping exercises** helps authorities plan better interventions.

#### **2. Awareness and Education**

- Communities play a vital role in **spreading awareness** about disaster risks and safety measures.
- Participation in **training programs, mock drills, and public awareness campaigns** enhances knowledge and preparedness.
- Schools, local groups, and religious institutions help in educating the public.

#### **3. Preparedness and Planning**

- Community members should be involved in creating **local disaster management plans**.
- Identifying **safe shelters, evacuation routes, and emergency contact points**.
- Forming and training **local disaster response teams** (like youth groups, women's groups).

#### **4. Early Warning and Communication**

- Communities help in **receiving, interpreting, and disseminating early warnings**.
- Local volunteers can alert vulnerable populations, such as the elderly, children, and persons with disabilities.
- Using traditional and modern communication channels (e.g., mobile phones, loudspeakers, sirens).

## 5. Response and Rescue

- The **first responders** during any disaster are **community members themselves**.
- They can perform **search and rescue operations**, **provide first aid**, and support **emergency services**.
- Local knowledge helps them **navigate and act effectively** during crises.

## 6. Recovery and Rehabilitation

- Communities assist in the **restoration of livelihoods**, repair of houses, and **psychosocial support** after disasters.
- They can help identify the most vulnerable and ensure **fair distribution of aid**.
- Community feedback is vital for **monitoring and improving recovery efforts**.

## 7. Monitoring and Evaluation

- Communities help in **monitoring disaster risks over time**, such as changing weather patterns or unsafe practices.
- They provide insights for **evaluating the success** of DRR interventions and programs.

<b>Responsibilities of the Community in the Disaster Risk Reduction (DRR)</b>	
<b>Responsibility</b>	<b>Description</b>
<b>Participation</b>	Involvement in planning, decision-making, and implementation of DRR strategies.
<b>Capacity Building</b>	Attending training, workshops, and mock drills to build local preparedness.
<b>Knowledge Sharing</b>	Sharing traditional knowledge and experiences with authorities and peers.
<b>Resource Management</b>	Managing and protecting local resources (forests, water bodies) responsibly.
<b>Coordination with Authorities</b>	Collaborating with local government, NGOs, and disaster management agencies.
<b>Volunteering</b>	Offering time and effort during emergencies and for awareness campaigns.
<b>Sustainable Practices</b>	Avoiding harmful environmental practices that increase disaster risk.

**Community roles and responsibilities can be broadly categorized as follows:**

### 1. Before a disaster (preparedness and mitigation)

- Risk assessment and planning: Communities actively identify hazards, assess vulnerabilities, and map out available resources (human, physical, and social) within their locality. This includes documenting traditional knowledge and coping mechanisms relevant to the local environment and potential hazards. They

contribute to and own the development of community-based disaster management plans, ensuring these plans reflect local realities and needs.

- Awareness and education: Community members play a vital role in raising awareness among their peers about disaster risks and preparedness measures. This includes educating others about appropriate behaviors before, during, and after a disaster event. They can leverage existing social networks and traditional communication channels to disseminate warnings and safety messages.
- Capacity building and training: Communities participate in training programs on first aid, search and rescue, evacuation procedures, and the effective use of early warning systems. They can form and train community disaster response teams (DRTs) to be prepared for various emergencies. Community empowerment is a crucial step towards building resilience.
- Mitigation and prevention: Communities actively engage in activities that reduce their vulnerability to hazards, such as planting ground cover on slopes to prevent landslides or building houses in less vulnerable areas (e.g., above flood levels).

## **2. During a disaster (response)**

- Immediate response: Community members are often the first on the scene after a disaster, providing initial support and assistance to those affected. They can assist with search and rescue, providing first aid, and helping evacuate vulnerable individuals.
- Information dissemination and communication: They actively share information about the disaster, including potential threats, available resources, and safe locations. This can involve using local communication networks and relaying messages received from authorities.
- Support and emotional first aid: Communities offer crucial emotional and psychological support to victims and work together to meet their immediate needs, fostering social cohesion and resilience. They can organize support groups and provide resources for mental health.

## **3. After a disaster (recovery and reconstruction)**

- Needs assessment and resource mobilization: Community members assist in assessing the damage and identifying the immediate and long-term needs of affected individuals and the community as a whole. They can help mobilize local resources and advocate for necessary support from local authorities and NGOs.

- Reconstruction and rebuilding: Communities actively participate in rebuilding efforts, volunteering for clean-up activities, and advocating for resources from local governments to restore damaged infrastructure and livelihoods.
- Learning and adaptation: Communities analyze the disaster event, identifying what worked well and what could be improved for future preparedness and response. This continuous learning process helps them adapt to changing risks and build more resilient communities for the long term.

### **Importance of community engagement in DRR**

- **Contextual understanding:** Communities possess unique local knowledge and understanding of their surroundings, which is vital for designing effective and locally relevant DRR strategies.
- **Increased resilience and ownership:** Active community involvement empowers individuals and fosters a sense of ownership over their safety and well-being, leading to a more robust and sustainable DRR approach.
- **Effective response and recovery:** Communities are often the first responders and their organized efforts significantly contribute to saving lives and minimizing damage during and after a disaster.
- **Social cohesion and solidarity:** Engaging the community in DRR fosters stronger social ties and promotes cooperation among residents, which is crucial during times of crisis and recovery.

## **Q 6) Roles and Responsibilities of the “Panchayati Raj Institutions (PRIs)” in the Disaster Risk Reduction (DRR)**

**Panchayati Raj Institutions (PRIs)** are the grassroots-level governance bodies in rural India, playing a critical role in local development and welfare. Due to their close proximity to communities, **PRIs are key actors in Disaster Risk Reduction (DRR)**. They are well-positioned to **coordinate local efforts, mobilize resources, and ensure community participation** in disaster management activities.

### **Role of Panchayati Raj Institutions (PRIs) in Disaster Risk Reduction (DRR)**

#### **1. Disaster Preparedness and Planning**

- Prepare **Village Disaster Management Plans (VDMPs)** with community participation.
- Identify **hazard-prone areas**, vulnerable populations, and local resources.

- Ensure **safe infrastructure development** through proper land-use planning.
- Facilitate **mock drills and training programs** at the village level.

## 2. Awareness and Capacity Building

- Organize **awareness campaigns, workshops, and public meetings** to educate people about disaster risks.
- Promote disaster preparedness through **posters, local media, and folk traditions**.
- Conduct **capacity-building programs** for PRI members, volunteers, and community groups.

## 3. Early Warning and Communication

- Act as a **link between the district administration and the community** to disseminate early warnings.
- Ensure that **early warning messages reach all sections**, especially the vulnerable (elderly, women, disabled).
- Mobilize local youth and volunteers to spread alerts through **public announcement systems** or door-to-door visits.

## 4. Coordination and Response

- Act as **local coordinators** during disasters, ensuring **immediate response** through community mobilization.
- Coordinate with **line departments (health, police, PWD)** for emergency services.
- Organize **evacuation, shelter management, and relief distribution**.
- Facilitate **search and rescue operations** in collaboration with trained local teams and district agencies.

## 5. Relief and Rehabilitation

- Assess the damage in coordination with district officials.
- Ensure **equitable distribution of relief materials** (food, water, shelter, medicines).
- Support **rehabilitation of affected people**, especially marginalized groups.
- Monitor and ensure **transparency in fund utilization** and beneficiary lists.

## 6. Infrastructure and Resource Management

- Construct and maintain **safe community infrastructure** (roads, school buildings, water sources).
- Promote **rainwater harvesting, afforestation, and soil conservation** to mitigate disasters like droughts and floods.
- Identify and manage **emergency shelters and resource storage points** in the village.

## 7. Inclusion and Social Equity

- Ensure the **participation of women, Scheduled Castes/Scheduled Tribes, and other vulnerable groups** in disaster management decisions.
- Form and support **Self Help Groups (SHGs), youth groups, and women's committees** in DRR activities.

Key Responsibilities of Panchayati Raj Institutions (PRIs) in DRR	
Function	Responsibilities
Planning and Preparedness	Develop and update village disaster management plans, risk maps, and evacuation plans.
Awareness Generation	Conduct community awareness and training programs on disaster preparedness.
Communication	Act as a channel for early warning dissemination and government instructions.
Emergency Response	Organize immediate relief, rescue, and evacuation during disasters.
Resource Mobilization	Mobilize local funds (e.g., from the Gram Panchayat budget) and volunteers.
Monitoring and Supervision	Oversee implementation of DRR activities and ensure proper use of resources.

**Panchayat Raj Institutions (PRIs)** play a pivotal role in Disaster Risk Reduction (DRR) because of their grassroots presence, community trust, and constitutional mandate for local self-governance. Their responsibilities span *pre-disaster preparedness*, *disaster response*, and *post-disaster recovery and mitigation*. Here's a detailed breakdown of their roles and responsibilities:

### Pre-Disaster (Preparedness and Mitigation)

- Awareness Campaigns:** PRIs promote disaster awareness and preparedness among local communities, educating people about risks and safety measures.
- Village Disaster Management Plan:** Formulate, review, and update disaster management plans tailored to local risks and vulnerabilities.
- Resource Mapping:** Identify and address resource gaps (e.g., shelters, emergency equipment, water sources) and replenish stocks as needed.
- Community Participation:** Actively involve the community, including formation and capacity-building of task forces or volunteers for early warning, rescue, and first aid.
- Networking:** Establish synergies with local NGOs, CBOs, and government agencies to support disaster preparedness and awareness activities.
- Enforcement:** Implement and enforce building codes, government advisories, and disaster-safe specifications at the village level.
- Early Warning System:** Facilitate the flow of warning signals and information down to every household using all available communication modes.

## During Disaster (Response)

- **Emergency Communication:** Arrange, manage, and maintain emergency communication networks using available technologies and local resources.
- **Evacuation & Relief:** Coordinate safe evacuation to shelters, operate relief camps, and prioritize support for vulnerable populations such as women, children, elderly, and disabled.
- **Health & Sanitation:** Arrange emergency health care and sanitation measures, including safe drinking water, food distribution, and disposal of waste and carcasses.
- **Rescue Operations:** Mobilize and direct village-level task forces or volunteers for search, rescue, and first aid, supplementing external agency efforts.
- **Monitoring Relief:** Supervise and ensure fair, transparent, and effective relief distribution to affected persons.
- **Information Dissemination:** Serve as a nerve-center for real-time information on the disaster situation, resource needs, and official advisories.

## Post-Disaster (Recovery, Rehabilitation, Mitigation)

- **Damage Assessment:** Assess the damage to public and private assets, identify victims eligible for compensation, and facilitate disbursal of relief funds.
- Rehabilitation & Reconstruction & Reconstruction

# Benefits of PR Institutions

- One of the benefits accruing from a devolution of power and responsibilities to the panchayats is the expected flexible and committed response at the grass-root level in the case of natural calamities.
- Panchayati raj institutions, if they are strong and effective and working in harmony, with the state government, can be effective instruments to tackle the disaster through early warning systems.
- They can also be relied upon for undertaking relief operations, day to day running of civic services, providing shelter and medical assistance to effected people etc.

# Benefits of PR Institutions

- Community-based participation is best and more cost-resource effective option in the long run as it enables local democratic process to flourish and ensure rapid recovery of the community's self reliance.
- Local government institutions have grass root level contact with people and they can help effectively in spreading awareness and ensure people's participation in fighting the crisis.
- Local bodies are also ideal channels for NGO's and other agency's participation in the rescue and relief operations and later in reconstruction and development works.

## Activities which PRI can play

- **Pre-Disaster**
  - Organizing awareness campaign and promoting community education on disaster preparedness
  - Articulation of community need for developing preparedness plan through community involvement and Panchayat ownership
  - Identifying the resource gaps both physical and manpower and replenish the same through capacity building
  - Establishing synergy with local agencies including NGOs/ CBOs
  - Dovetailing Risk Reduction into various development programs of national and state governments
  - Encouraging people to insure assets and livestock
  - Establishing convergence with local institutional structures created for implementing education, health, livelihood, social justice and so on.
  - Activating the DM Plans with the participation of the community
  - Formation of Task forces and their capacity building
- **During Disaster**
  - Arranging emergency communication through available resources
  - Evacuation to temporary shelter and running relief camps
  - Supplementing rescue and relief efforts in coordinating different agencies
  - Monitoring of Relief distribution
  - Safe disposal of carcass and arranging safe drinking water and sanitation
- **Post Disaster**
  - Damage assessment particularly assisting in identifying victims for compensation and its distribution
  - Formulating rehabilitation and reconstruction plan of houses and other local infrastructures
  - Enforce minimum specification for safe reconstruction
  - Supervise and monitor long term reconstruction and mitigation projects
  - Mobilizing special funds to use disaster resistant construction technology in vulnerable areas

## **Q 7) Roles and Responsibilities of the “Urban Local Bodies (ULBs)” in the Disaster Risk Reduction (DRR)**

**Urban Local Bodies (ULBs)**—which include **municipal corporations, municipalities, and nagar panchayats**—are the **primary institutions for urban governance in India**. As urban areas are increasingly vulnerable to disasters such as floods, fires, earthquakes, industrial accidents, and urban heatwaves, **ULBs play a critical role in Disaster Risk Reduction (DRR)** through planning, preparedness, response, and recovery measures.

### **Key Roles of Urban Local Bodies (ULBs) in Disaster Risk Reduction**

#### **1. Urban Disaster Risk Assessment and Planning**

- Conduct **hazard, vulnerability, and risk assessments** (HVRA) for their respective urban areas.
  - Prepare **Urban Disaster Management Plans (UDMPs)** aligned with the district and state disaster plans.
  - Incorporate **disaster risk considerations into city development plans**, master plans, and smart city missions.
  - Promote **resilient urban planning**, including zoning regulations and safe building locations.
- 

#### **2. Infrastructure and Building Safety**

- Enforce **building codes, development control regulations, and land-use planning** that reduce disaster risks.
  - Ensure **earthquake-resistant, fire-safe, and flood-resilient construction** practices.
  - Monitor **urban drainage systems**, solid waste management, and road infrastructure to prevent hazards like urban flooding and disease outbreaks.
- 

#### **3. Preparedness and Early Warning Systems**

- Set up and maintain **early warning systems** in coordination with district and state authorities.
  - Ensure timely dissemination of alerts to citizens through **SMS, sirens, public announcements**, and digital platforms.
  - Identify and maintain **emergency shelters, relief camps**, and evacuation routes.
- 

#### **4. Capacity Building and Community Engagement**

- Conduct **training programs, mock drills, and simulation exercises** for municipal staff, school children, and local communities.

- Promote **public awareness campaigns** on disaster preparedness, safe construction, sanitation, and climate risks.
  - Encourage formation of **community-based disaster management committees (CBDMCs)**.
- 

## 5. Emergency Response and Relief

- Act as the **first line of organized response** during disasters within city limits.
  - Mobilize **urban services** such as fire brigades, sanitation workers, health staff, water supply, and transport for emergency operations.
  - Coordinate with **police, civil defense, National Disaster Response Force (NDRF)** and NGOs for rescue and relief.
  - Distribute **relief materials**, maintain shelters, and ensure hygiene and public health.
- 

## 6. Post-Disaster Recovery and Rehabilitation

- Assess **damage to infrastructure, housing, and services** after a disaster.
- Restore essential services such as **water supply, sewage, waste disposal, transport**, and electricity.
- Facilitate **reconstruction of housing**, public facilities, and road networks in a **resilient and sustainable** manner.
- Document and learn from experiences for **future improvements in risk reduction**.

Responsibilities of Urban Local Bodies (ULBs) in DRR	
Function	Responsibilities
<b>Risk Assessment</b>	Identify urban hazards and vulnerable areas, update risk maps.
<b>Urban Planning</b>	Integrate DRR into master plans and land use regulations.
<b>Enforcement</b>	Enforce building codes, safety norms, and fire regulations.
<b>Capacity Development</b>	Train municipal staff, frontline workers, and community members.
<b>Public Engagement</b>	Conduct awareness drives and involve local residents in planning.
<b>Infrastructure Management</b>	Maintain safe urban infrastructure—roads, drains, bridges, shelters.
<b>Response Coordination</b>	Coordinate emergency actions and communicate with citizens during disasters.
<b>Health and Sanitation</b>	Ensure medical aid, clean water, sanitation, and disease control post-disaster.

# Roles and Responsibilities of the "Urban Local Bodies (ULBs)" in the Disaster Risk Reduction (DRR).

**Urban Local Bodies (ULBs)** are the principal agencies responsible for the governance, planning, and management of urban areas, making them critical stakeholders in **Disaster Risk Reduction (DRR)**. Their roles span across all phases of disaster management: prevention, mitigation, preparedness, response, and recovery. The main responsibilities are derived from the Disaster Management Act, 2005, and recent amendments, as well as best practices recognized nationally and internationally.

## Detailed Roles and Responsibilities of ULBs in DRR

### 1. Local Disaster Management Planning and Implementation

- **Preparation of Disaster Management Plans:** ULBs are required to formulate, implement, and regularly update local disaster management plans that address specific urban risks, vulnerabilities, and resources.
- **Integration with Development:** Disaster prevention and mitigation measures must be incorporated into all urban development and infrastructure projects, including land-use planning, building regulations, and zoning.

### 2. Risk Identification and Assessment

- **Vulnerability Mapping:** ULBs carry out hazard, vulnerability, and risk assessments for their jurisdictions to identify high-risk areas (e.g., flood-prone zones, earthquake-vulnerable buildings).
- **Data Maintenance:** Maintain and regularly update urban risk and resource databases for effective preparedness and response.

### 3. Building Institutional Mechanisms

- **Disaster Management Committees:** Constitute and operationalize local disaster management committees and disaster management teams, ensuring community representation, including women and vulnerable groups.
- **Urban Disaster Management Authorities:** Actively participate in urban disaster management authorities where constituted (e.g., as per the Disaster Management (Amendment) Bill, 2024), with key officials like the Municipal Commissioner taking leadership roles.

### 4. Disaster Preparedness and Capacity Building

- **Community Awareness and Training:** Conduct public education, awareness campaigns, evacuation drills, and trainings for city residents, schools, slum dwellers, and institutions regarding disaster preparedness and response.

- **Capacity Building:** Train municipal staff, local volunteers, and first responders in emergency operations, search and rescue, first aid, and crisis management.

## 5. Early Warning and Information Management

- **Early Warning Systems:** Establish, operate, and maintain early warning dissemination mechanisms to ensure timely alerts reach all sections of city populations, particularly vulnerable groups.
- **Communication:** Ensure clear channels for dissemination of official advisories before and during disasters.

## 6. Emergency Response and Relief Operations

- **Resource Mobilization:** Mobilize and deploy urban resources (personnel, equipment, shelters, transport, medical aid, etc.) during disaster events.
- **Coordination:** ULBs coordinate with District Authorities, State agencies, civil society organizations, and emergency services for efficient response and relief.
- **Maintaining Essential Services:** Ensure continued functioning of vital services—water, sanitation, electricity, public transport, waste management—even during emergencies.
- **Operation of Shelters and Relief Camps:** Establish and manage temporary shelters, ensure supply of drinking water, food, sanitation, and healthcare.

## 7. Post-Disaster Recovery and Rehabilitation

- **Rapid Damage Assessment:** Undertake quick assessment of damages to public infrastructure, private property, and livelihood assets after a disaster event.
- **Restoration of Infrastructure and Services:** Lead the restoration and repair of urban infrastructure (roads, water supply, drainage, public facilities) to normalize city functioning.
- **Rehabilitation and 'Build Back Better':** Promote risk-resilient reconstruction and rehabilitation, targeting vulnerable sectors and populations.

## 8. Policy, Regulation, and Enforcement

- **Enforcing Building Bye-laws:** Implement and enforce disaster-resilient norms in building bye-laws and other urban regulatory frameworks.
- **Land-use Regulation:** Prevent illegal settlements and unsafe construction in vulnerable zones.
- **Monitoring Compliance:** Monitor the adherence to DRR mandates across development and service delivery processes.

## 9. Community Participation and Stakeholder Coordination

- **Involving Communities:** Engage civil society organizations, resident welfare associations, and vulnerable groups in all stages of DRR planning and action.
- **Collaborative Governance:** Coordinate horizontally with police, health, fire services, and vertically with state and district disaster management authorities.

## Roles and responsibilities of “Urban Local Bodies (ULBs)” in Disaster Risk Reduction (DRR)

Urban Local Bodies (ULBs) are essential to Disaster Risk Reduction (DRR) efforts in cities and towns. They are often the primary point of contact for citizens and play a crucial role across all phases of disaster management: prevention, mitigation, preparedness, response, and recovery.

### 1. Before a disaster (prevention, mitigation, and preparedness)

- Hazard identification and risk assessment: ULBs conduct urban vulnerability and risk mapping to identify disaster-prone zones, vulnerable populations (like those in slums or informal settlements), and critical infrastructure (hospitals, power grids). This involves gathering data on geological, hydrological, meteorological, and infrastructure aspects.
- Integrating DRR into urban planning: ULBs are responsible for mainstreaming DRR into city development plans, including master plans and zoning regulations. They ensure that building codes and construction standards are aligned with disaster resilience guidelines and that new construction projects consider potential disaster impacts. According to NDM India, this includes enforcing robust techno-legal regimes and promoting construction practices that are resistant to hazards.
- Infrastructure development and maintenance: ULBs invest in disaster-resistant infrastructure, such as flood protection measures, improved drainage systems, and earthquake-resistant buildings. According to NDM India, they promote the use of disaster-resistant housing materials and implement sustainable practices.
- Early warning systems and communication: ULBs establish and maintain early warning systems to provide timely alerts to the community. They utilize various communication channels, including mass media and community networks, to disseminate warnings and safety information.
- Public awareness and capacity building: ULBs conduct public awareness campaigns to educate residents on disaster preparedness measures, including evacuation procedures and emergency response protocols. They organize training programs for community volunteers and response teams, such as first aid and search and rescue.

### 2. During a disaster (response)

- Emergency response coordination: ULBs coordinate emergency services, including rescue efforts, managing resources, and providing temporary shelters. They collaborate with state and national emergency agencies, such as the NDRF and State Disaster Management Authorities.
- Provision of essential services: ULBs are responsible for providing basic services like clean water, food, and sanitation in disaster-affected areas. They also ensure the availability of healthcare services and manage temporary shelters for displaced individuals.
- Evacuation and relief: ULBs organize and facilitate the evacuation of people and livestock to safe locations and manage relief camps. They also assist in recovering and disposing of dead bodies.
- Law and order and security: ULBs maintain law and order, prevent trespassing and looting, and ensure the safety of residents during the emergency response phase.

### 3. After a disaster (recovery and reconstruction)

- Damage assessment and recovery planning: ULBs assess the extent of damage and develop comprehensive recovery and reconstruction plans. This includes identifying victims for compensation and coordinating with relevant departments and agencies.
- Rehabilitation and reconstruction: ULBs implement programs for rehabilitating affected individuals and rebuilding damaged infrastructure, housing, and livelihoods. They promote sustainable reconstruction practices and enforce building codes to ensure resilience.
- Post-disaster learning and improvement: ULBs analyze lessons learned from the disaster response and recovery process to improve future preparedness and resilience efforts. This includes reviewing their disaster management plans and enhancing coordination mechanisms.

Phase	Key ULB Activities
<b>Prevention /Mitigation</b>	Risk assessment, land-use planning, enforcing bye-laws, retrofitting assets
<b>Preparedness</b>	Planning, awareness, drills, capacity building, early warning systems
<b>Response</b>	Rescue operations, relief distribution, shelter management, coordination
<b>Recovery</b>	Damage assessment, infrastructure restoration, resilient reconstruction

## **Q 8) Roles and Responsibilities of the “States” in the Disaster Risk Reduction (DRR)**

### **Roles and Responsibilities of the States in Disaster Risk Reduction (DRR)**

In India, **Disaster Management is a federal responsibility**, but **States play a pivotal role** in implementing disaster risk reduction (DRR) strategies. As per the **Disaster Management Act, 2005**, each state must establish institutional mechanisms and take proactive steps for preparedness, mitigation, response, and recovery. States act as **primary responders** during disasters and have the legal and administrative authority to **plan, coordinate, and implement DRR measures**.

---

### **Institutional Framework for States in DRR**

- **State Disaster Management Authority (SDMA):** Headed by the Chief Minister, responsible for formulating state-level disaster management policies and plans.
  - **State Executive Committee (SEC):** Chaired by the Chief Secretary, implements the directives of the SDMA and coordinates disaster response and preparedness.
  - **Departments (Revenue, Health, PWD, Agriculture, etc.):** Each department is responsible for incorporating DRR into its sectoral plans.
- 

### **Key Roles and Responsibilities of States in Disaster Risk Reduction**

#### **1. Policy Formulation and Planning**

- Prepare and update the **State Disaster Management Plan (SDMP)** and **departmental disaster management plans**.
  - Formulate **state-level policies, guidelines, and action plans** for disaster preparedness, mitigation, and climate resilience.
  - Integrate DRR into **state development plans and sectoral programs** (e.g., health, agriculture, infrastructure).
- 

#### **2. Risk Assessment and Mitigation**

- Conduct **hazard, vulnerability, and risk assessments (HVRA)** for the entire state, including identification of high-risk zones.
  - Promote and implement **disaster mitigation projects**, such as flood control, drought-proofing, and slope stabilization.
  - Allocate budget for **risk reduction infrastructure** and disaster-resistant construction in public works.
-

### **3. Capacity Building and Training**

- Establish **State Disaster Response Forces (SDRF)** and equip them with training, equipment, and logistics.
  - Organize **training programs for government officials, emergency responders, and local bodies**.
  - Support **community-based disaster preparedness programs** and partnerships with academic and research institutions.
- 

### **4. Early Warning Systems and Preparedness**

- Develop and strengthen **early warning systems** for cyclones, floods, landslides, heatwaves, etc.
  - Coordinate with the **India Meteorological Department (IMD)** and other central agencies to ensure accurate and timely alerts.
  - Establish and maintain **Emergency Operation Centers (EOCs)** at the state and district levels.
- 

### **5. Coordination with Local Governments**

- Guide and support **District Disaster Management Authorities (DDMAs)** and **Urban Local Bodies (ULBs)/Panchayats** in implementing DRR.
  - Issue directives and provide funding for **district-level preparedness plans**, training, and resource mobilization.
  - Ensure proper flow of information and coordination between **state, district, and community levels**.
- 

### **6. Emergency Response and Relief**

- Mobilize **state resources and personnel** immediately after a disaster.
  - Coordinate the deployment of **SDRF, police, medical teams, fire services, civil supplies, and essential services**.
  - Oversee **relief distribution, shelter management, medical assistance, and infrastructure restoration**.
  - Maintain **transparency, accountability, and grievance redress mechanisms** in relief operations.
- 

### **7. Post-Disaster Recovery and Rehabilitation**

- Assess damage and losses in collaboration with the **DDMAs and sectoral departments**.
- Prepare and implement **state recovery and rehabilitation plans**, ensuring resilience in reconstruction.

- Facilitate access to **state and central disaster relief funds** and ensure targeted support to vulnerable populations.
- 

## **8. Resource Allocation and Financial Management**

- Allocate **budgetary provisions for disaster preparedness and mitigation** in annual state budgets.
  - Maintain and manage the **State Disaster Response Fund (SDRF)** and access the **National Disaster Response Fund (NDRF)** when required.
  - Monitor **financial utilization and audit of disaster-related expenditures**.
- 

## **9. Monitoring, Evaluation, and Reporting**

- Monitor the implementation of DRR policies and plans at all levels.
- Conduct **periodic evaluations and audits** to improve effectiveness and accountability.
- Submit regular **reports to the Ministry of Home Affairs, NDMA**, and other national agencies.

## **Roles and responsibilities of the “States” in Disaster Risk Reduction**

State Governments in India bear the primary responsibility for disaster management within their jurisdiction, including disaster risk reduction. The Central Government supplements these efforts, especially in severe disasters or those affecting multiple states. The Disaster Management Act, 2005, mandated the establishment of State Disaster Management Authorities (SDMAs), headed by the Chief Minister, and State Executive Committees (SECs), headed by the Chief Secretary, to spearhead DRR initiatives at the state level.

### **The roles and responsibilities of “States” in DRR:**

#### **1. Institutional framework and policy**

- Establish and operationalize SDMAs and SECs: The state governments are responsible for setting up and ensuring the smooth functioning of these crucial bodies, including appointing members, providing resources, and defining their powers and functions.
- Formulate State Disaster Management Policy and Plans: States are required to develop comprehensive state-specific policies and plans, outlining strategies for prevention, mitigation, preparedness, response, and recovery, taking into account their unique hazards and vulnerabilities.

- Enact and enforce relevant legislation: States have the power to legislate on matters related to disaster management and ensure the implementation of the Disaster Management Act, 2005, within their borders.

## 2. Prevention and mitigation

- Hazard and vulnerability assessment: Conduct detailed risk assessments and vulnerability mapping to identify disaster-prone areas and vulnerable populations within the state.
- Integrate DRR into development planning: Ensure that DRR considerations are integrated into all development plans, policies, and projects across various sectors like infrastructure, agriculture, and urban development.
- Invest in disaster-resilient infrastructure: Implement and enforce building codes and construction standards to ensure that infrastructure (roads, bridges, schools, hospitals) is built to withstand hazards specific to the region.
- Promote environmental protection and sustainable land-use planning: Implement measures like watershed management, afforestation, and coastal zone regulations to reduce disaster risks.
- Capacity building and training: Organize training programs for government officials, first responders, community volunteers, and professionals on various aspects of disaster management, including specialized skills like search and rescue, medical aid, and operating equipment.
- Public awareness and education: Launch campaigns to raise awareness among the public about disaster risks, preparedness measures, and early warning systems. This includes promoting community participation in DRR initiatives.

## 3. Preparedness

- Develop State and District Disaster Management Plans: The State Executive Committee is responsible for developing the State Disaster Management Plan (SDMP), which includes disaster response plans for districts and ensures that all state departments also prepare their own departmental disaster management plans.
- Establish and maintain early warning systems: Implement and maintain effective early warning systems tailored to the state's specific hazards and ensure timely dissemination of warnings to communities.

- Mobilize and train State Disaster Response Force (SDRF): Raise and equip specialized State Disaster Response Forces (SDRF) to handle disaster situations and provide initial response and support before the arrival of national forces.
- Stockpile resources and equipment: Ensure the availability of essential relief materials, equipment for rescue and relief operations, and necessary communication systems.
- Conduct mock drills and exercises: Regularly conduct mock drills and exercises to test preparedness, evaluate response mechanisms, and improve coordination among various stakeholders.

## 4. Response

- Activate and coordinate emergency response: Activate the State Emergency Operations Centre (Control Room) and coordinate rescue, relief, and rehabilitation efforts following a disaster.
- Provide immediate relief: Provide essential assistance to affected populations, including food, water, temporary shelter, medical aid, and psychosocial support.
- Deploy SDRF and other resources: Deploy the SDRF and mobilize other state government departments, agencies, and resources to assist in rescue and relief operations.
- Seek assistance from the Central Government: If the disaster's magnitude overwhelms the state's capacity, the state can seek additional financial and logistical support from the Central Government, including the deployment of the National Disaster Response Force (NDRF).

## 5. Recovery and reconstruction

- Conduct post-disaster needs assessment: Assess the damage and identify the needs of affected individuals and communities for recovery and reconstruction.
- Plan and implement rehabilitation programs: Develop and implement programs for rehabilitation of affected people, including livelihood restoration, reconstruction of housing and infrastructure, and psychosocial support.
- Ensure accountability and transparency: Ensure that relief and rehabilitation efforts are implemented transparently and accountably, and address the specific needs of vulnerable groups.

In summary, State Governments and their associated institutions play a critical role in establishing a comprehensive and effective framework for DRR. Their efforts span from integrating DRR into long-term development plans to ensuring immediate and coordinated responses during emergencies and facilitating the long-term recovery of affected communities.

## **Q 9) Roles and Responsibilities of the “Centre” in the Disaster Risk Reduction (DRR)**

### **Roles and Responsibilities of the Centre in Disaster Risk Reduction (DRR)**

In India, **Disaster Management** is a joint responsibility of the Centre and the States, with the Centre playing a **strategic, policy-making, coordination, and financial support role**. The **Government of India** provides a national framework for disaster risk reduction (DRR), facilitates coordination among states, mobilizes national resources, and supports capacity-building for effective disaster management across the country.

---

### **Key Institutions at the Central Level for DRR**

#### **1. National Disaster Management Authority (NDMA)**

- Established under the **Disaster Management Act, 2005**.
- Chaired by the **Prime Minister of India**.
- Responsible for **formulating policies, plans, and guidelines** for disaster management.
- Coordinates and monitors the implementation of disaster management plans across ministries and states.

#### **2. Ministry of Home Affairs (MHA)**

- Nodal ministry for most natural and human-induced disasters (except droughts, which are handled by the Ministry of Agriculture).
- Coordinates with states, central ministries, and disaster response agencies.
- Houses the **Disaster Management Division**, which manages financial assistance and resource allocation.

#### **3. National Institute of Disaster Management (NIDM)**

- Apex institute for **training, research, documentation, and capacity-building** in disaster management.
- Conducts **training programs, workshops, and studies** for government officials and stakeholders.

## 4. National Disaster Response Force (NDRF)

- Specialized response force under NDMA.
  - Trained for **search, rescue, and relief operations** during major disasters.
  - Works in coordination with State Disaster Response Forces (SDRFs) and local authorities.
- 

## Roles and Responsibilities of the “Centre” in DRR

### 1. Policy Formulation and National Planning

- Formulates the **National Policy on Disaster Management (NPDM)**.
  - Prepares and updates the **National Disaster Management Plan (NDMP)**.
  - Develops sector-specific guidelines (health, education, urban development, etc.) for risk reduction.
  - Encourages **mainstreaming DRR into national development policies and programs** (e.g., Smart Cities Mission, PMAY, Jal Shakti Abhiyan).
- 

### 2. Coordination and Support to States

- Coordinates **inter-state disaster response and resource mobilization**.
  - Guides state governments through **advisories, policy directions, and expert assistance**.
  - Facilitates **technical and financial support** for disaster mitigation and preparedness projects.
- 

### 3. Financial Assistance and Resource Management

- Maintains and allocates funds under:
    - **National Disaster Response Fund (NDRF)** – for immediate relief in the event of severe disasters.
    - **National Disaster Mitigation Fund (NDMF)** – for funding DRR and mitigation projects.
    - Recommends state-wise allocation under the **State Disaster Response Fund (SDRF)**.
  - Provides **additional financial support** to states facing large-scale disasters, based on assessment.
- 

### 4. Early Warning Systems and Information Dissemination

- Supports **central agencies like IMD (India Meteorological Department), CWC (Central Water Commission), INCOIS, etc.**, to issue timely warnings.

- Disseminates **early warnings and alerts** through multi-channel systems such as TV, radio, mobile SMS, apps, etc.
- Helps integrate **technology (GIS, remote sensing, AI)** for better disaster forecasting and risk monitoring.

## 5. Capacity Building and Training

- Funds and supports **training programs for government officials, first responders, and communities**.
- Promotes disaster education and safety drills in schools, colleges, and public offices.
- Empowers institutions like **NIDM, IITs, NITs**, and research organizations to conduct **DRR-focused research and innovation**.

## 6. Disaster Response and Relief

- Deploys the **National Disaster Response Force (NDRF)** for major disasters and coordinates with armed forces if needed.
- Arranges for **airlifting of relief materials, evacuation, and logistical support**.
- Mobilizes **central public sector resources (railways, telecom, oil, transport)** for disaster support.

## 7. International Cooperation

- Coordinates with international bodies like:
  - **UN agencies (UNDRR, UNDP, UNICEF)**.
  - **SAARC Disaster Management Centre**.
  - **Bilateral and multilateral donors** during transnational disasters.
- Represents India in **global DRR platforms**, including the **Sendai Framework for Disaster Risk Reduction (SFDRR)**.

Centre's Responsibilities in DRR	
Function	Roles of the Central Government
<b>Policy and Planning</b>	Formulate national policies and guidelines; prepare NDMP
<b>Coordination</b>	Coordinate disaster efforts across ministries, states, and agencies
<b>Financial Support</b>	Operate NDRF/NDMF; allocate SDRF; provide disaster relief funds
<b>Capacity Building</b>	Support training, research, awareness through NIDM and other institutions
<b>Early Warning</b>	Operate national forecasting agencies; support multi-hazard early warning systems
<b>Response and Relief</b>	Deploy NDRF; mobilize armed forces and logistics support
<b>International Engagement</b>	Collaborate with international organizations for DRR planning and assistance