

D.N.R.COLLEGE(AUTONOMOUS), BHIMAVARAM

DEPARTMENT OF GEOGRAPHY

DISASTER MANAGEMENT

E- CONTENT

K.SOMAYYA

LECTURER IN GEOGRAPHY

Unit I: Introduction to Disaster Management

- **Types of Disasters**

- **Natural Disasters:**

- **Floods:** Overflow of water onto land that is usually dry.
 - **Cyclones:** Intense rotating storms with strong winds and heavy rain.
 - **Earthquakes:** Sudden shaking of the ground caused by movement of tectonic plates.
 - **Landslides:** Downward movement of rock, earth, or debris on a slope.

- **Man-made Disasters:**

- **Fire:** Uncontrolled burning that can cause damage and loss of life.
 - **Industrial Pollution:** Contamination of environment from industrial activities.
 - **Nuclear Disasters:** Catastrophic incidents involving nuclear power plants or weapons.
 - **Biological Disasters:** Outbreaks of diseases or contamination affecting populations.
 - **Accidents (Air, Sea, Rail & Road):** Mishaps causing significant harm and damage.
 - **Structural Failures (Building and Bridge):** Collapse of structures due to design or maintenance issues.

- **War & Terrorism:** Acts of violence and destruction resulting from human conflict.
- **Causes, Effects, and Examples**
 - Each disaster type's root causes, impacts on environment and society.
 - Examples illustrating historical occurrences and their consequences.

Unit II: Risk and Vulnerability Analysis

- **Risk**
 - **Concept and Analysis:** Assessment of potential hazards and their likelihood.
 - **Risk Reduction:** Strategies to minimize risks through prevention, mitigation, and preparedness.
- **Vulnerability**
 - **Concept and Analysis:** Understanding susceptibility to disasters based on social, economic, and environmental factors.
 - **Strategic Development for Vulnerability Reduction:** Policies and measures to enhance resilience and reduce vulnerability.

Unit III: Disaster Preparedness and Response

- **Disaster Preparedness**
 - **Concept and Nature:** Planning and readiness measures to respond effectively to disasters.

- **Disaster Preparedness Plan:** Framework including prediction, early warnings, and safety measures.
- **Role of Information, Education, Communication, and Training**
 - Enhancing public awareness, knowledge dissemination, and community resilience.
 - Training programs for emergency responders and the public.
- **Role of Government, International and NGO Bodies**
 - Coordination, resource mobilization, and support in disaster preparedness and response efforts.
 - International cooperation and assistance during disasters.
- **Role of IT in Disaster Preparedness**
 - Utilization of technology for early warning systems, communication networks, and data management.
 - Enhancing efficiency and effectiveness in disaster response operations.
- **Role of Engineers in Disaster Management**
 - Engineering solutions for disaster-resistant infrastructure and technology innovation.

Unit IV: Disaster Response

- **Disaster Response**
 - **Introduction:** Immediate actions following a disaster to save lives and reduce suffering.

- **Disaster Response Plan:** Coordination, communication, and activation of emergency preparedness plans.
- **Search, Rescue, Evacuation, and Logistic Management**
 - Strategies and techniques for locating, rescuing, and evacuating affected populations.
 - Logistic management for resource distribution and support operations.
- **Psychological Response and Management**
 - Addressing trauma, stress, rumors, and panic among survivors.
 - Psychological support and mental health services in post-disaster settings.
- **Relief and Recovery**
 - Medical health responses tailored to different types of disasters.
 - Long-term recovery strategies and rehabilitation efforts.

Unit V: Rehabilitation, Reconstruction, and Recovery

- **Reconstruction and Rehabilitation**
 - Strategies for rebuilding infrastructure and communities post-disaster.
 - Damage assessment, prioritization of needs, and remedial measures.
- **Creation of Long-term Job Opportunities and Livelihood Options**

- Economic recovery initiatives, job creation, and sustainable livelihoods.
- Empowering communities for resilience and self-sufficiency.
- **Disaster Resistant House Construction, Sanitation, and Hygiene**
 - Building practices to withstand disasters, improving sanitation, and hygiene infrastructure.
 - Preventing disease outbreaks in disaster-affected areas.
- **Education and Awareness**
 - Promoting disaster preparedness education and raising awareness in vulnerable communities.
 - Training programs for sustainable disaster management practices.
- **Dealing with Victims' Psychology**
 - Addressing psychological trauma and supporting mental well-being of disaster survivors.
 - Community-based approaches to fostering resilience and social cohesion.
- **Long-term Counter Disaster Planning**
 - Integrating disaster risk reduction into development planning and policies.
 - Role of educational institutions in research, training, and fostering a culture of safety

