



MANGALORE UNIVERSITY
MSc Geography

SOFT COURSE: GYS 504: Natural Disaster management

Course Learning Outcomes:

- CO1. Identify major natural disaster
- CO2. Analyze the causes and consequence of disaster
- CO3. Execute different preventing methods
- CO4. Connect real world with methods

Unit 1: Environment hazards & disasters: Meaning & approaches, Causes and consequences of disaster: Physical, economic and cultural, National and International organizations into disaster management. **Types of environmental hazards and disaster:** Natural disaster- Earthquake, tsunamis, landslides, volcanic eruption, cyclones, tornados, floods, droughts, heat waves and cold waves. Man induced hazards- Soil erosion, release of toxic chemicals, nuclear explosion, population explosion and resultant environmental disasters. -15

Unit 2: Emerging approaches to Disaster management: (1) Pre-disaster stage (Preparedness)-hazard zonation maps-predictability and forecasting warning, land use zoning, Information, Education & Communication (IEC) Disaster resistance house construction, Population reduction in vulnerable area and awareness. (2) Emergency Stage- Rescue training for search and operation at national and regional level, ground management plan preparation, immediate relief, Assessment surveys. (3) Post disaster stage rehabilitation – Political administrative aspects, social aspect, economic aspect, cultural aspect and environmental aspects. -15

Unit 3: Natural Disaster mitigation: Relief measure, role of GIS in Relief measures, role of GPS in search and rescue, role of Remote sensing in prediction of hazards and disasters, measures of adjustment of natural hazards. -12

Unit 4: Disaster in Indian context: A regional survey of Land Subsidence, Coastal Disaster, Cyclonic Disaster & Disaster in Hills, terror attacks, communal clashes, Remedial measures. National and international policies for disaster management. - 12

References:

1. R.B. Singh (Ed) ,1990, Environmental Geography, Heritage Publishers New Delhi
2. Savinder Singh,1997, Environmental Geography, Prayag Pustak Bhawan.
3. Kates, B.I & White,1978, G.F The Environment as Hazards, oxford, New York.
4. R.B. Singh (Ed), 2000, Disaster Management, Rawat Publication, New Delhi.
5. H.K. Gupta (Ed), (2003), Disaster Management, Universities Press, India.
6. R.B. Singh, (1994), Space Technology for Disaster Mitigation in India (INCED), University of Tokyo.
7. Dr. Satender, (2003), Disaster Management t in Hills, Concept Publishing Co., New Delhi.
8. A.S. Arya Action Plan For Earthquake, Disaster, Mitigation in V.K. Sharma (Ed) (1994), Disaster Management IIPA Publication New Delhi.
9. R.K. Bhandani An overview on Natural & Man made Disaster & their Reduction ,CSIR, New Delhi
10. M.C. Gupta, (2001), Manuals on Natural Disaster management in India, National Centre for Disaster Management,IIPA, New Delhi.