

ROLE OF NGOs, IT AND ENGINEERS

AUDIT COURSE(DISASTER MANAGEMENT)

SEMESTER II

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Role of NGOs

Essentially, the role of NGOs in Disaster Management is focuses on disaster preparedness in different ways. Disaster preparedness refers to the ability of an individual, group of people, or a country to respond quickly and effectively when it is necessary. It offers all-level capacity to respond to a host of dangerous situations when they arise in a disaster. They may include early warnings, risk assessment, capacity building and stock keeping of emergency supplies.

For effective participation in disaster management, NGOs collaborate with government agencies develop capacity and skills to handle and mitigate the effects of disasters. In some cases, government officers actively take part in coordinated activities, organized by NGOs for disaster preparedness. This is important since disaster can befall anybody, whether in the public service or private sector. Therefore, NGOs are keep players in creating public awareness about disasters and what we need to do to prevent their occurrence, and what to do, when such hazardous events occur.

Another way through which NGOs take part in disaster management is through advocacy. They have been known as strong advocacy partners at all levels. They mostly engage governments in reviewing various policies to address the concerns of disaster preparedness in an effective way. NGOs may also develop an advocacy roadmap that predicts opportunities available for a country or group of people to invest in preparedness activities. Upon such a plan, they engage other partners, including governments to get funds for disaster preparedness interventions. This kind of advocacy is important because it enhances policy formulation, development of a strategy and proper drafting of a disaster management program at all levels.

Besides preparedness, NGOs also take part in assessment processes. Here, they assess the vulnerability and risk exposure levels in their areas of operation. Additionally, this process seeks to establish how people are able to respond to disaster, in terms of available resources and capacities. It is paramount to involve other stakeholders and the government at this level for funding and other support. Together with capacity building at all levels, NGOs remain key players in disaster management around the world.

Role of IT

IT nowadays is being used in all the fields. During disasters IT is of great help in managing the hospitals, such as managing data, managing the occupied and vacant rooms, managing the doctors specified, the beds allocated to the victims, Electronic health records of the victims also helps within seconds which reduces human efforts and increases efficiency. During disasters, hospitals are the areas which are most vulnerable and have a critical infrastructure. This modern era of science and technology have certainly raised the bar and made the hospitals smarter and efficient during disasters. Hospitals are now upgraded with digital transformations all over.



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- There are many advanced Information Technology techniques such as GPS(Global Positioning System), remote sensing, GIS (Geographic Information System), satellite communication which is of great use if any calamity strikes out.
- Internet is a great mean through which we can create social awareness and emergency events. There are many Internet sites which can be accessed during a disaster and the people can know how to overcome the catastrophe and mark themselves safe.
- Remote Sensing and GIS can be used to swap out the data and give alerts and early warnings to plan for the strategies to regulate and collocate relief work.
- The data from the satellite can be used for mapping earthquake, water body configuration and monitoring post-flood surveys and accessing the damage
- There are many advanced forecasting systems which can be used to monitor and forecast, and predict any unknown disasters.
- Through Seismological observations whose data can be used to predict earthquakes and warn people.

Role of Engineers

Role of Civil Engineers:-

- With strong building foundation, the risk of collapsing of any building can be easily prevented. A geotechnical engineer is responsible for the construction of such high earthquake resistant buildings enhancing the infrastructure.
- For the flood control and destruction of dams, the hydraulic engineer provides all the required information about the various bridges and dams and advanced designs for prevention.
- City planners and project managers study the vulnerabilities providing proper guidelines required for provides rough and tough infrastructure withstanding any outer force.
- Rescue operations and safety escape routes must be established in every building along with possible reconstruction of the entire building is controlled by a structural engineer.
- Hazardous and toxic wastes, air pollution control, drainage development and radiation protection is handled by the environmental engineer which is essential once the disaster has struck in order to control the after effects.

Role of Mechanical Engineers:-



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- Contractors work along with the structural engineers to come up with shockproof infrastructure right before the construction of the building.
- The planning of raw steel used in bridges, tracks, buildings, which kind of cement to be used is done by the mechanical engineers.
- Mechanical Quality inspectors are very important who mainly approve the work of civil engineers at construction sites.
- Entire piping and ductwork are executed by mechanical engineers which are the critical part in the erection of infrastructures.
- They deal with all the government approval work which involves official permission and clearances.
- Project Commissioning of the all the raw products and systems installed during the building of any plant is governed by mechanical engineers with the support of electrical engineers.
- JKMEGA (Jammu and Kashmir Mechanical Engineer Graduate Associate) has appreciated the use of preventive mechanical gadgets such as motorized gates, ultrasonic level gauges which are very useful in flood control and take timely measures.

Roles of Electrical Engineers :-

- Construction of drones and helicopters for easy transportation of food packets for all the victims who are in need is handled by the electrical technicians.
- Power control during heavy rainfall resulting floods and prevention of shocks with water being a good conductor of electricity is ensured by the electricians by timely cutting off the electricity supply.
- They also make sure secure earthing pits during the electrical installation which could be a major problem at the time of earthquake if not done right.
- Electrical motors and generator installation in drought-prone areas are done by electrical engineers which eradicate the further drying up of the region and provides the water supply for the victims.
- They have an important role in providing electricity to all kinds of disaster hit zones and giving them the luxury of power at the time of crisis.

References:



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- <https://www.premiumessays.net/sample-essay-on-role-of-ngos-in-disaster-management/>
- <https://www.quora.com/What-is-the-role-of-the-Indian-government-in-disaster-management#:~:text=Any%20Government%20plays%20very%20important%20role%20in%20Disaster,Army%2C%20Indian%20AF%20saves%20thousand%20of%20life.%20>
- <https://www.geographynotes.com/disaster-management-2/role-various-agencies-disaster-management-india/5509>
- <https://www.sciencedirect.com/science/article/pii/S2590061719300122>
- <https://www.letsnurture.com/blog/disaster-management-in-depth-analysis-role-of-it-technologies.html>
- <https://www.groupdiscussionideas.com/role-of-engineers-in-disaster-management/>
- <https://vikaspedia.in/social-welfare/disaster-management-1/disaster-management-in-india>
- <https://rahat.up.nic.in/NGO.aspx>