

AUDIT COURSE - DISASTER MANAGEMENT

POST DISASTER EFFECTS AND REMEDIAL MEASURES CREATION OF LONG-TERM JOB OPPORTUNITIES AND LIVELIHOOD OPTIONS

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INTRODUCTION

Every year, millions of people are affected by both human-caused and natural disasters. Disasters may be explosions, earthquakes, floods, hurricanes, tornados, or fires. In a disaster, people face the danger of death or physical injury. They may also lose home, possessions, and community. Such stressors place you at risk for emotional and physical health problems.

This Unit discusses the effects of disaster and its remedial measures and also the concept of livelihood and its relevance to the approach of reconstruction.

POST DISASTER EFFECTS

Natural disasters increasing in frequency due to climate change and these events bring with them a mass of issues, including humanitarian, public health, environmental and infrastructural problems.

Humanitarian Crises

Natural disasters have created a large migrant population, called climate refugees or environmental migrants. These people can be forced out of their homes by an abrupt natural disaster. The area where they formerly lived is no longer habitable for one reason or another, or the standard of living has dropped so drastically that the uncertain future and they start to migrate

Public Health Issues

Health issues are one of the most pressing problems after any natural disaster. It is often the case that facilities for water and toilet hygiene are damaged: meaning that the safe disposal of human waste quickly becomes a public health hazard. Further, without running water, hand washing and food hygiene rapidly deteriorate.

Psychological Effects

After a natural disaster event, survivors can experience mental health consequences, including post-traumatic stress disorder, or PTSD.

Disasters can cause traumatic flashbacks where the individual recalls the event, severe anxiety, withdrawal, depression and increased fears of loss and death, which can interfere with daily life if a person doesn't have the normal ability to cope with trauma. Children are especially vulnerable to post-disaster traumatic stress.

Environmental Problems



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Natural disasters, from tsunamis to wildfires, can cause wide-ranging and long-term consequences for ecosystems: releasing pollution and waste, or simply demolishing habitats.

Infrastructural Damage

One of the most immediate and economically devastating concerns with natural disasters is the damage to both public and private infrastructure.

POST DISASTER EFFECT ON COMMUNITIES

Disasters affect communities in multiple ways. They represent a public health hazard for various reasons given in Table 1

- Can cause an unexpected number of deaths and wounded or sick people that exceed the local resources capacity to respond and require external aid.
- Can destroy health infrastructure not only affecting the immediate response, but also disrupting preventive activities, leading to long-term consequences with increased morbidity and mortality.
- Can have adverse effects on the environment that will increase the risk for infectious transmissible diseases and environmental hazards. This will impact morbidity, premature death, and future quality of life.
- Can affect the psychological and social behavior of the community.
- Can cause shortages of food, with severe nutritional consequences.
- Can cause large movements of the population, both spontaneous or organized, to areas where health services might not be able to handle the excessive requirement

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Disaster type \ Effect	Complex emergency	Earthquake	Strong winds	Floods	Gradual floods	Mud slides	Volcanic eruptions
Immediate deaths	Numerous	Numerous	Few	Numerous	Few	Numerous	Numerous
Severe lesions	Numerous	Numerous	Moderate	Few	Few	Few	Few
Increased risk for transmissible diseases	This risk applies to ALL significant disasters, and increases with overcrowding and deterioration of sanitary conditions						
Damage to health centers	Moderate; can be severe if health centers are military targets	Severe	Severe	Severe but localized	Severe (only for equipments)	Severe but localized	Severe
Damage to water supply	Severe	Severe	Slight	Severe	Slight	Severe but localized	Severe
Food shortage	Severe	May result from economic and logistic factors		Frequent	Frequent	Not frequent	Not frequent
Significant population displacements	Frequent	Frequent; increased likelihood in severely damaged urban areas	Not frequent	Frequent			

Adapted from *Humanitarian Assistance in Disaster Situations. A Guide for Effective Aid*. Pan-American Health Organization (PAHO). Washington D.C, 1999.

Table 1: Frequent effects of disaster

REMEDIAL MEASURES/ ESSENTIAL EMERGENCY RELIEF MEASURES

1. Do a rapid assessment of the emergency situation and the affected population.

An assessment should accurately define the needs, so that limited resources will be efficiently used to maximize life-savings and other vital goals.

In the immediate aftermath of a disaster, the initial response will primarily come from local resources. Communities must be prepared to do a local assessment of disaster impact. Health care professionals should be prepared to assess the health issues in their community, and understand the mechanism of sharing that information with higher levels of authority, in order to contribute to regional or national assessments. Assessments need to be repeated and the quality and specificity of data improved during the rescue and recovery phases or whenever any major change occurs, such as

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an aftershock earthquake. Information gathered through the assessments is used by the resource managers to determine the allocation of resources in any largescale disaster.

2. Provide adequate shelter and clothing.

Exposure to the worst climatic conditions in disaster situations can increase death rate. Immediately find short-term shelters for all homeless individuals, particularly focusing on vulnerable populations. Shelters should be appropriate for the climate. Keep individuals within their communities and family networks as much as possible. In general, it is recommended to direct resources to rebuilding within the community, rather than building large camps or temporary settlements outside the disaster area.

3. Provide adequate nutrition.

Large-scale bulk food requirements are typically calculated based on a minimum of 2,100 kcal/person/day. Communities must plan to distribute food equitably and include vulnerable groups. As global food resources improve, establish targeted supplemental and therapeutic feeding programs for malnourished individuals.

4. Provide elementary sanitation and clean water.

The estimated minimum requirement for drinking water is 3-5 L/person/day of clean water but 15-20 L are recommended for all needs including washing and cooking. Re-establish supplies of clean water and effective sanitation and waste disposal services as soon as possible. In an emergency, there should be at least one latrine per 20 individuals. As the situation stabilizes, each family of 5 should have one latrine.

5. Set up diarrhea control program.

An increase in diarrheal disease is a predictable outcome of disasters because of infrastructure and health care services disruption. Rapidly implement community-based education on appropriate household sanitation measures, diarrhea prevention, and household case management, particularly for young children with diarrhea. Health care centers should anticipate the needs for additional cases of dehydration, using appropriate low-cost strategies (ORS/ORT) and recognize possible cases of cholera and dysentery



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6. Immunize against measles and provide vitamin A supplements.

Measles has been a major source of mortality among crowded, displaced populations in which malnutrition is prevalent. Therefore, measles immunization is the only vaccine that is routinely considered for use as a preventive measure immediately following a disaster. Since vitamin A deficiency is common and contributes to measles related mortality, consider mass distribution of vitamin A for vulnerable populations.

7. Set up disease surveillance and health information systems.

Effective health information and disease surveillance systems are necessary to monitor effectiveness of health interventions and reassign priorities

8. Organize human resources.

The initial shock of an event can make it difficult for a disaster-affected population to effectively respond in a quick and organized fashion. Having a pre-defined emergency plan with clearly-identified leaders can help the local community to cope until more external resources arrive

9. Coordinate activities.

In a large-scale disaster there will be many national and international agencies attempting to assess, develop plans, and establish priorities for funding at national and regional levels. Most effective relief efforts have resulted from effective collaboration between many agencies, each bringing their own expertise and experience. However, all of these agencies will ultimately depend on quality assessments from the affected communities to make appropriate decisions and determine the ability of the communities to implement the plans and projects that will help diminish suffering and restore the baseline situation in the communities.

CREATION OF LONG-TERM JOB OPPORTUNITIES AND LIVELIHOOD OPTIONS



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The disaster-affected areas take a very long time to return to normality. There is a lot that needs to be done beyond rescue, relief and rehabilitation. A disaster management policy must involve a long-term livelihood generation and support strategy for effective employment creation. New structures and processes that could generate livelihood have to be created as well as sustained. Creation of long-term opportunities of livelihood is a crucial step in building disaster coping strategies.

The literal meaning of livelihood is existence of employment, work opportunities or occupation as a means of support. This type of support refers to physical sustenance of individuals' families and households. The livelihood approach is particularly linked with the creation of sustainable environment.

A livelihood comprises the capabilities, assets (both material and social resources) and activities required for a means of living. There are six livelihoods capitals or the building blocks of livelihoods that are needed for the well-being of people: financial/income, social, human, natural, political, and physical in both crisis and non – crisis situations. Jobs and livelihoods is critical in contributing to multi-dimensional poverty reduction, ending hunger and reducing inequality early on in crisis and post crisis settings.

Livelihood and job creation has long been a critical issue in disaster response and recovery. Fundamentally it plays three critical roles

Economic: It serves as a key—and in some cases only—source of income for the population affected by disaster.

Social: It encourages affected people to participate in the recovery process, thus strengthening their social ties.

Psychological: It helps those who lose their jobs regain their self-esteem and look forward to a future.

United Nations Development Programme (UNDP) works globally with communities and societies affected by natural disasters, crisis and conflicts, during both sudden and protracted situations for early and long-term economic and livelihoods recovery. UNDP's livelihoods and economic recovery efforts are the first critical steps towards systematically addressing underlying vulnerabilities and inequalities to progress towards sustainable and equitable development.

International humanitarian assistance has typically used two tools to promote livelihood recovery after disasters: **cash transfer and public works programs (cash for works)**

Cash transfers are typically used to provide short-term assistance to the most vulnerable affected people. To be effective, cash grant programs must be well targeted (for example, aimed at the



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elderly, widows, refugees), be transparent, have sound mechanisms for monitoring and evaluation, and have a clear exit strategy.

Cash-for-work (CFW) programs have been common tools for humanitarian assistance. These programs provide cash to affected people in return for their work on various recovery projects, such as debris removal and the repair or reconstruction of damaged infrastructure.

Job opportunities for construction works will complete within a few years. Government support for creating regular jobs is essential in devastated areas—such as arranging jobs, building factories, rehabilitating facilities of irrigation and fishery harbours and resolving double debt.

Public works employment schemes

Public works employment schemes are used to engage communities in larger-scale public works activities such as the reconstruction of roads, schools and public offices. Unlike livelihood-oriented CFW programs, in which participants commonly determine the specific work to accomplish, public works employment schemes are designed by governments. According to the ILO, typical projects invest 40-60% of the reconstruction funds into local communities through wages and income. This immediately stimulates the local economy and benefits other local livelihoods (2000). Public works employment schemes are typically medium to longer term projects that require technical and managerial support.

An ADB study of projects in the Philippines, India and Indonesia, recommends public works employment schemes for the following activities (Donnges, 2009):

Construction of large dams and irrigation structures (including lining of canals); Construction and maintenance of ports, railways and airport runways, and dredging channels.

Agricultural terracing and land development, and cleaning irrigation canals, fish pond development; and water and soil conservation, flood protection, river training and drainage works, irrigation works.

- Low-volume unsealed roads (construction and maintenance) and high-volume roads (maintenance);
- Rehabilitation and maintenance of public offices, parks, playing fields, parking areas, etc;
- Water and sanitation, electrification and telecommunication (trenches for laying pipe and cable)
- Construction and maintenance of markets, workshops and other economic infrastructure;
- Social infrastructure (construction and maintenance of schools, clinics); Construction of sanitation systems;



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- Construction of primary and secondary roads and bridges

Public works employment projects have been integrated into longer term strategic planning.

Matching workers with jobs

The process of rebuilding, particularly after a large-scale disaster, can create a wealth of employment opportunities. Yet governments, private sector, and international actors struggle to find qualified individuals to meet their human resource needs. Quite often, the problem is not a lack of appropriately skilled individuals but rather the challenge of identifying them and linking them to the appropriate employment opportunities.

Providing Insurance

SEWA, the Self Employed Women's Association has taken on an innovative approach to providing insurance to some of the most vulnerable members of disaster affected communities in India, following the Gujarat Earthquake of 2001

CONCLUSION

Disasters negatively affecting humanitarian, public health, environmental and infrastructural areas of a community.

The International Recovery Platform (IRP) and United Nations Development Programme India have developed Guidance Notes on Recovery on nine sectors namely Shelter, Infrastructure, Gender, Livelihood, Environment, Governance, Climate Change, Health and Psycho-social support.

Creation of livelihood options as a significant vulnerability reduction approach could be used in the context of development in general and disaster prevention and management in particular. The coordination of different sectors and agencies is crucial to this approach. UNDP has been playing an important role in creation of livelihood options.

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