UNIT 2 DISASTER MANAGEMENT

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Learning Objectives
After having read this unit, you should be able to:

- define disasters;
- understand disaster management;
- appreciate anthropological contribution in disaster management;
- understand challenges in disaster research; and
- locate opportunities for anthropologists in the field of disaster management.

2.1 INTRODUCTION

Disasters are escalating globally. Not only this, the magnitude, and destruction caused by them is also on a rise. We are all aware of the 2011 Tohoku earthquake and tsunami in Japan that caused large scale destruction. It is also a case which reminds us that when technology and environmental hazards see each other face to face, it results into devastation as seen in Japan where tsunami affected the Fukushima Nuclear plant and a state of nuclear emergency was declared. From time to time, we have seen India facing emergency of similar nature, not to mention the Bhopal Gas Tragedy, The Indian Ocean Tsunami and The Gujarat Earthquake, which are still alive in the collective memory of the people. India is vulnerable to different kinds of disasters which are reflected in the table below:
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<table>
<thead>
<tr>
<th>Disaster Type</th>
<th>Percentage of the total area prone to disaster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthquakes</td>
<td>58.6 percent of landmass</td>
</tr>
<tr>
<td>Floods and River Erosions</td>
<td>12 percent of land</td>
</tr>
<tr>
<td>Cyclones and Tsunami</td>
<td>75.8 (of the 7516 Km long coastline close to 5700 Km is prone)</td>
</tr>
<tr>
<td>Drought</td>
<td>68 percent of the cultivable area</td>
</tr>
</tbody>
</table>

Source: National Policy on Disaster Management approved by Union Cabinet on October 22, 2009

Apart from the natural disasters, India is also vulnerable to man-made disasters which call for a serious attempt on the part of the government and also on the part of the citizens to help reduce the vulnerability of the population. This can only be achieved by adopting a pro-active approach of better preparedness, planning and mitigation and also of quick relief, rehabilitation and sustainable recovery. Thus, managing disasters is an option that has gained immense importance in this background.

This unit on disaster management has been such designed to give you an account of what we mean by the term disaster and how anthropologists have understood the term. After having defined what a disaster is, we will move towards understanding what exactly we mean by disaster management and how there has been a shift in thinking about the term over a period of time. This will lead us to locate anthropology in the disaster management framework, where we will look into how anthropologists can contribute and have contributed for managing disasters. This will include the role of anthropologists in community based disaster preparedness, using the concept of Information, Education and Communication (IEC) for managing disasters, role of indigenous knowledge in disaster management, anthropological contribution towards policy building and advocacy of rights and understanding disasters for better management. Then we will move towards understanding challenges in disaster research. Finally, we will talk about the opportunities available for anthropologists in the field of disaster management.

2.2 DEFINING DISASTERS

Disasters have affected the human population since its inception. They have always been a danger for the human civilisation, and some evidence also suggests that the entire civilisation was washed away by disasters. One of the earliest evidence of floods washing away the human settlement is recorded by archaeologists as dating back to the Indus Valley Civilisation (3000 B.C.-1200 B.C.). It has been argued that one of the main causes of the decline of the earliest civilisation was floods (Sahani, 1956). Another instance of flood playing havoc comes from the work of B.B. Lal (1955) who carried out excavations at Hastinapur (Mawana tehsil of Meerut district, U.P.) and in upper Ganga and Sutlej basins. Hastinapur is a capital city which is mentioned in the epic of Mahabharata. According to the ancient Indian literature, the regime of Nichakshu, the fifth ruler after the Mahabharata battle, there occurred a flood in the Ganga which...
washed away Hastinapur and the capital was shifted to Kaushambi. This event is established by an excavation carried out at the site, which indicates that a heavy flood in the Ganga washed a considerable portion of the Painted Grey Ware settlement (period II) at Hastinapur, which resulted in the desertion of the site for some time to come.

In this context disasters can be seen as destructive agents. But what we are calling disasters here (ex- floods) are actually natural hazards that occur in a particular geographical location. These hazards are transformed into disasters when they come in close contact with the human population and thus affect lives and property. Thus in this sense disasters occur when environment and society come together. It can be defined as occurring due to the nexus between environment and society. However, coming to the modern times, which is marked by industrialisation and technological advancements, a third dimension is added to the above mentioned diad and that is technology. Thus disasters can be viewed as emerging out of a nexus between environment, society and technology. This triad talks about another kind of disaster which we call as man-made disasters where technological advancements, development and society are at logger heads.

The term disaster originated from a French word ‘Desastre’ which is made up of two words- ‘des’ meaning bad or evil and ‘astre’ meaning star. Thus disaster means a bad-star. Here the term is associated with an event on which there is no human control and something which is supernatural and extra-terrestrial. People also associate disasters with religion where it is said to occur due to the fury of God. These beliefs are widely held even today. Whatever it may be but one thing is for sure that for most of the natural disasters it can be said that human beings have little control. At present the maximum we can do is to know beforehand about a tsunami, flood, cyclone etc. but cannot do anything to stop them. But another line of thinking regarding the occurrence of natural disaster says that since human beings have exploited their mother nature by various developmental activities, as a result of that we are facing global warming which in turn is responsible for various disasters. By this argument, every disaster is man-made. But still we differentiate between the natural and the man-made disaster on the basis of the extent of control human beings have on the occurrence of such events.

There is another basis on which disasters can be divided into two types- disasters occurring suddenly i.e disasters having a sudden-onset and the others having slow-onset. In the first category we can keep disasters like earthquakes, floods etc. and in the second category we can keep disasters like drought. But whatever be the nature of their occurrence- sudden or slow, they are all encompassing events that affect almost every aspect of the society.

The Disaster Management Act, 2005 has defined disasters in these terms- “disaster means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes or by accident or negligence which results in substantial loss of life or human suffering or damage to and destruction of property or damage to and degradation of environment and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.” This definition brings out two important characteristic of the term disaster which can be stated as under:

1) Apart from loss of life and damage to property, disaster also includes those events that are a serious threat to the environment and may cause environmental degradation.
2) Also disasters are of such a nature and magnitude that they are beyond the coping capacity (also called as resilience) of the community. This suggests that to cope with the event, community requires external support and help.

**Activity 1**

Look into the Disaster Management Act, 2005 and see what provisions are made in the act for managing disasters.

### 2.3 ANTHROPOLOGICAL UNDERSTANDING OF DISASTERS

For understanding disaster it is also important to differentiate between hazard and disaster. Although they are very closely related and sometimes used interchangibly, hazard is a life threatening event and disaster is a consequence of this event. When hazard acts upon a population it may result into disaster. Not all hazards will lead to disaster, but when hazards interact with a vulnerable population it will lead to a disaster. The idea of vulnerability is very important to understand disaster. The following equation will make things clearer:

\[
\text{DISASTER} = \text{HAZARD} \times \text{VULNERABILITY}
\]

Now one may ask that what do we mean by vulnerability? Wisner et al. (2004) answers this question by defining vulnerability as “…the characteristic of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a disaster.” This definition makes it clear that vulnerability is the characteristic of the population which makes them more susceptible for damage due to hazards. Population is a heterogenous entity, that is there are different kinds of people, there are different groups in a popualtion that differ from each other on important parameters like age, gender, caste, religion, ethnic identity, class etc. these different groups are differentially susceptible to hazards. It is a common observation that people from lower socio-economic strata are more affected than people from upper strata. Again, elderly, female and children are more affected during hazard impact.

The vulnerability approach to disaster discussed above is something in which anthropologists are interested and their conception of disaster revolves largely around this issue. Anthropology since its inception has been interested into deciphering or knowing about different populations of the world, their society and culture. This twin concept of society and culture has caught the imagination of anthropologists since its beginning. They are more interested in knowing about the social structure of a community i.e., to say about their social relationships and laws governing those relationships, also they paid attention to the underlying cultural basis of these relationships. It is this social structure that makes population vulnerable to hazards. They have also advocated about understanding a society from emic perspective (people’s point of view) and being holistic in understanding any society. Hence, when anthropologists try to understand disaster they bring in all these concepts. For an anthropologist disasters are situated more in the community than in the event itself, thus disaster is seen more as a process than an event. She tries to understand that how a disaster event will impact the entire community under study and how different institutions in a society will get affected.
by a disaster. The fundamental framework of holistic investigation in anthropology is most suited for disaster studies, since disasters are all encompassing and only a complete view is suited to understand them fully.

Looking from an emic perspective, an anthropologist will try to understand the term disaster as defined by the people themselves and how their conception is different from that of the relief providers and relief agencies. Anthropologists will also understand the community response to the extreme events. How well the community is equipped to handle disaster situation and how the local support system, in the form of various institutions, like family, kinship etc., helps in disaster response. In these terms anthropologists are more interested to understand the social capital of the community (social resources in terms of relationship that are helpful to cope with extreme events).

Anthropologists are interested in understanding change in a society and a disaster situation will give opportunity to look into this dimension. An anthropologist will look into how the society and its social institutions undergo change after disaster. It has been documented that areas which are flooded every year show a change in the marriage pattern. Families are no longer interested in marrying their daughters to people residing in those areas since they may have to face hardships due to annual flooding. This has changed the marriage pattern in these areas since availability of bride is reduced immensely, which in turn has promoted the practice of ‘buying wives’ from other far-flung areas. Likewise there can be changes related to other dimensions in the society like- relationship between people, change in the political power structure due to changing affiliations in the wake of disaster1.

The above discussion largely pertains to the branch of socio-cultural anthropology. But anthropologists also try to understand disaster impacts from physical anthropological dimensions. A physical anthropologist is more interested in knowing how biological features interact with the socio-cultural features. Vulnerability is not only social in nature but it can also be physical/biological. For example, consider the population where some of the people are malnourished, will they not be more vulnerable in a disaster situation which results in economic deplition and in turn lead to less nourishment. These people will also be more susceptible to various disease out-break after disaster. Although malnourishment is again due to poor economic condition, which can be socially constructed in the form of marginal groups, but measuring the level and extent of malnourishment would require the skills of a physical anthropologist, who with the help of her/his anthropometric rod, callipers and other instruments will decide about the status of malnourishment. This will again help us to understand disaster in a holistic perspective (Joshi et al., 2010).

There is yet another branch i.e., archaeological anthropology, which has also contributed to understanding disasters. This approach emphasises the role of disasters in socio-economic evolution of populations. Archaeological evidence are largely related with the material aspect of culture, like, habitat, art, use of terrain etc. These evidence throw some light on to how people cope with disasters or what sustains a society’s resilience to disaster. Archaeology indicates that which segment of population re-emerge after the disaster and how and why some disappear. Also it indicates that what mixture of strategies a culture might have adopted to face disaster (Oliver-Smith and Hoffman, 1999).

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1 This was revealed during fieldwork conducted in flood affected regions of Eastern Uttar Pradesh.
After having discussed the anthropological understanding of disaster, we will now move towards understanding the meaning of disaster management and then we will see that how anthropologists can contribute towards effective disaster management.

### 2.4 UNDERSTANDING DISASTER MANAGEMENT

There has been a paradigm shift in the concept of disaster management, which has been incorporated in the disaster management act, enacted on December 23, 2005. Earlier, disaster management was restricted to post-disaster relief and rehabilitation but it was later realised that a more pro-active approach is needed for effective management of disaster and for this purpose it is necessary that capacity building of the community should be the focus, where the emphasis is on vulnerability reduction and preparedness and mitigation before disaster. Hence disaster management now has been divided into two phases- pre-disaster preparedness and mitigation, and the post-disaster relief, rehabilitation and sustainable recovery phase. The idea of sustainable recovery is important to the idea of disaster management, since recovery should be such that it can bear the impact of future disasters. This approach of sustainable recovery is also related with the idea of sustainable development, where the development process is such designed which can withstand the impact of disaster.

The Disaster Management Act, 2005 defines it as more ‘like a continuous and integrated process of planning, organising, co-ordinating and implementing measures which are necessary for:

a) Prevention of danger or threat of any disaster
b) Mitigation or reduction of risk of any disaster
c) Capacity building including research and knowledge management
d) Preparedness to deal with any disaster
e) Prompt response to any threatening disaster situation
f) Assessing severity of effects of any disaster
g) Evacuation, rescue and relief
h) Rehabilitation and reconstruction.

From the above definition, it is quite clear that disaster management is a continuous process wherein we plan, organise, co-ordinate and implement the measures to reduce risk, increase our capability to fight with the emergency situation, prepare ourselves in such a way that even if disaster strikes, we are in a position to respond promptly, can assess the severity of effect, provide relief and recover fast to normal condition. Policy makers and others in the position of decision making have realised that, only development cannot be the goal. Mindless construction of dams, roads, bridges, buildings and other infrastructures cannot solve the purpose in the long run. What is needed is the idea of sustainable development, that can withstand the test of time and extreme conditions.
The idea of disaster management can be diagramatically represented as follows:

The diagram reveals that the process of disaster management is a continuous process where the pre-disaster and post-disaster phases are continuous. This means that the rehabilitation and reconstruction will be such that it will promote prevention, preparedness and mitigation of future disasters and again the preparedness will be such that it promotes quick response and better rehabilitation.

The above mentioned framework of disaster management will guide our discussion on the role of anthropology in disaster management. In the next section and subsequent sub-sections we will learn that, how our training in anthropology will help in better disaster management.

2.5 LOCATING ANTHROPOLOGY IN THE DISASTER MANAGEMENT FRAMEWORK

Anthropology as a subject has lot to offer in the field of disaster management. We have already understood that how anthropologists look at disasters. In this section we will learn that how that knowledge can be put to use for better management. The following sub-sections of this section will make clear about the diverse areas in which anthropological training can be used for managing disasters. The first submission that an anthropologist will make with reference to disaster management is the people-centric or community-centric approach. For an anthropologist, people come first. Whatever preparedness strategy or recovery and rehabilitation strategy will be made, the voice of the affected people will be in the fore-front.

The formulation of policy and advocacy will be based on in-depth research. You might be thinking that this is something that everyone will want to achieve but not everyone can achieve this without applying the anthropological tools and methods. In any disaster situation the major cause of discontent and dissatisfaction from the relief providers is that, they do not cater to the needs of the people, instead they cater to their own conception of relief.

This is the juncture where an anthropologist chips-in. S/he can act as a bridge between the people and the service-provider, or relief-provider. S/he can also achieve in terms of preparedness what everyone else could not. We will discuss these issues and others in the following pages:

\[ \text{Diagram adopted from the National Policy on Disaster Management} \]
2.5.1 Community Based Disaster Preparadness (CBDP)

In the wake of any extreme event, it is the community that is affected first. Also, it is the community that responds first to any kind of disaster before any relief can come from outside, therefore it becomes necessary that community should participate in the disaster management plan. CBDP is an approach where community participation is of utmost importance. This will ensure that people’s perception of the event is not missed or putting it in other words, people’s perception is primary in this approach. If you look into the literature of anthropology, then you must have come across the word ‘emic.’ This word means that anthropologists are concerned with the people’s point of view. Local is more important. The approach of CBDP aims at this level. It ensures that people should come forward and participate in planning. This is done through various participatory methods like- vulnerability mapping, resource mapping and safe route mapping.

In vulnerability mapping, the aim is to know that which areas of a village or a territory in which an anthropologist is working are more vulnerable to extreme events. This is done with the help of mapping the entire area. A group of villagers or local people sit with the anthropologist and map the entire area on a sheet of paper or a black-board where important places in the area are marked like schools, temples, houses, wells, hand-pumps, anganwadi centers, hospitals (primary health centers) etc., and in case of a disaster which of these areas will be more affected for example in case of floods which areas are likely to get flooded first and which areas are likely to be worst hit by floods. This kind of mapping will ensure that people can know before-hand, what are the safe places in their vicinity where they can move quickly if need arises. Again, for this purpose, safe-route mapping is done where safe routes are marked, with the help of local people which can be followed in case of emergency evacuation. The basic idea behind this approach is that ‘people know better.’ Also with the help of community participation resource mapping is done, where resources are located in the area which can be utilised in emergency and also after any disaster for immediate recovery. This enhances the capacity of the people and makes them less vulnerable to disasters. Thus, these are also measures for vulnerability reduction with which anthropologists are concerned.

Other components of CBDP include making different teams of local people that can help in diverse areas of disaster management, like involving the village panchayat, selecting young people who can mobilise people for making the CBDP plan in the first place and then can be helpful during recovery and rehabilitation process. The CBDP plan also incorporates understanding the history of disaster in that particular area and the amount and extent of damage caused by previous disasters. This will help in better preppardness for future events. Thus anthropological work and knowledge starts right from the preparedness phase of disaster management.

**Activity 2**

Try to make a vulnerability map of your locality using participatory technique and look how you can be better prepared in case of an earthquake. Locate vulnerable areas that are overcrowded and safe places and routes that can be used during an earthquake.
An important study conducted in Nagapattinam district of Tamil Nadu on the risk factors of 2004 Indian Ocean Tsunami made some recommendations with regards to the community based disaster preparedness. It was found that women emerged as the most vulnerable group in it. In the wake of this reality, it was recommended that “vulnerability of women in such communities is a major issue that should be specifically targeted in any future disaster preparedness and early warning programme.” This was further extended to include that community disaster preparedness programmes and policies should focus on specific vulnerable target groups. Therefore an important dimension to the CBDP was added through this study that brings to our attention, the incorporation of vulnerable groups in the preparedness scheme. This study also had a team of anthropologists headed by Prof. P.C. Joshi on board (Guha-Sapir et al., 2006).

2.5.2 Information, Education and Communication (The IEC Model)

It is a strategy and an approach that attempts to change a set of behaviour in the target group. In the area of disaster management one would like to change the perception of the people regarding the entire process of disaster management. It is necessary to make people understand that pre-disaster preparedness is as important as post-disaster recovery for effective management and for doing this job one needs to communicate with the people. Going by a simple definition of communication, it is a process that establishes commonness among the receiver of the message and the sender. The information encoded in the form of message is needed to be communicated in the lingu – franca of the community where the change is desired. This message can be about the importance of sanitation in case of disaster or spread of communicable disease during various disaster and precautions that one should take to avoid them. The message can also be about do’s and dont’s in the wake of an earthquake or a chemical attack or a gas leak or about something most important in a disaster situation- early warning signal. It has been documented during a fieldwork by an anthropologist in a flood prone area of eastern Uttar Pradesh that even though people were provided with the warning of an impending flood, they refused to act upon that warning. A deeper probe into the reason revealed that people do not trust the source of warning as sometimes the warning is correct and sometimes it is not. Thus credibility of the source providing the message is also important. Again, the message should be encoded in such a way that it is easily understood by majority of people. If the message is too technical or very lengthy then people might not take it seriously. The anthropological approach comes in handy at this point where an anthropologist tries to help the local authorities to create such a message that is embedded in the cultural context of the recipient.

There are various ways in which the local authority tries to inform, educate and communicate messages across to people but they are not successful all the time and then they complain about non-compliance of the people. If one would visit any disaster prone area, then one would find such pamphlets and hand-outs stuck on the walls of various government and non-government buildings, sometimes these messages convey the meaning but sometimes they fail to do so. Here an anthropologist with local knowledge can be of help in designing and conveying messages effectively across different communities.
A field experience is worth sharing where a method of communicating vital issues regarding floods was devised. Here, a disaster management chariot (locally known as *aapada prabandhan rath*) was devised in a form of a jeep carrying a loudspeaker which travelled from village to village, educating people about how, by using empty plastic bottles, they can make their own life jackets which can be used for keeping afloat during floods. This seems to be an affective strategy of educating people but after sometime it seemed to the author that people lost interest in the process. As the chariot arrived in the village only a few people gathered around it and participation on a large scale was missing. The use of a loudspeaker blocked two way flow of knowledge. It was more like a one-way traffic. It could have given better results if this method was negotiated at both the ends (sender and receiver), people could have shared their previous experience with similar methods, or must have shared their concern regarding the availability of empty plastic bottles etc. These are some observations that an anthropologist can make during fieldwork and can suggest for better alternate strategy and thus contribute towards effective disaster management. A comprehensive IEC strategy aims at long-term capacity building at the grassroot level. This leads to empowerment of the target population through education, as they are placed in a better position to make informed choices.

**Activity 3**

Device an innovative and attractive message using audio-visual or simply on a paper using colours that can educate people about health issues after floods, like sanitation, cleanliness, safe drinking water etc.

### 2.5.3 Indigenous Knowledge

Throughout this unit we have been talking about the anthropological approach of looking at a problem through the people's point of view. It is also said that indigenous knowledge is under-utilised in the development process. This approach is reflected best when an anthropologist tries to understand the local knowledge of the people regarding resilience or coping from a disaster situation. Understanding the indigenous knowledge regarding disaster preparation and coping is based on the fact that people develop some knowledge in order to adapt to their environment, which is based on their past experience with similar situations. It is a fact that when tsunami hit the Indian sub-continent, many tribes living in the Andaman and Nicobar Islands saved themselves from devastation. This was made possible because of their reliance on indigenous knowledge of natural warning signals in the form of movement and activity of birds, animals and aquatic life. Over a long period of time they must have observed such signals which became incorporated in their collective consciousness. This type of knowledge gets transmitted from generation to generation in the form of oral tradition. This type of knowledge is not documented by the community. Such knowledge has shown its importance time and again during an emergency. It provides basis for problem solving strategies. Understanding indigenous knowledge increases responsiveness to the clients. This knowledge provides a productive context for activities designed to help people develop and handle crises.

Now, it has been fully realised that the indigenous knowledge system can become an important tool in disaster management. It is of such an importance that the
national policy on disaster management approved by the union cabinet on October 22, 2009 has devoted a separate section on knowledge management for better disaster mitigation and in this section it also talks about the importance of indigenous knowledge “which is handed down right from ancient times by way of tried and tested practises in facing disasters in different parts of India.” However much needs to be done in the form of actual documentation and dissemination of this kind of knowledge.

The author’s experience of working in a village community enundated by floods revealed that people developed their own knowledge of mitigating and managing with such situations. This kind of indigenous knowledge can largely be divided into technological, economic and environmental. The technological dimension deals with the local understanding and know-how of building flood-proof, make-shift huts that can be carried on a bullock-cart in case, floods enundate the entire area. The economic dimension suggests that people are not dependent upon a single source of income and are engaged in multiple economic activities, so that they can fall back on the alternatives in case, floods destroy their fields. The environmental dimension is the most interesting which comprises their knowledge of identifying environmental signal of an approaching flood.

2.5.4 Policy and Advocacy

The anthropological understanding of the field situation in disasters is of immense importance for policy formulation and advocacy of rights and equal distribution of relief after disasters. From the first hand field account, it can be stated that there are two issues that are related with policy implications and advocacy- a) widespread dissatisfaction with the relief provided and b) unequal distribution of relief or the politics of relief distribution. This is a widely held view among the disaster victims that, the relief provided is “too little and too late.” Also, people complain that the district administration and various stake-holders could not cater to the immediate needs of the people. To answer this question, an in-depth analysis of people’s perception is needed. It is found that a gap exists between the people’s perception of an extreme event and the authorities (provider’s) perception of the event. To illustrate this point with an example, it was found in an anthropological study conducted among the flood affected people that there was a wide gap in the definitional aspect of floods. It is a common observation and also well documented now, that people’s reaction to an event or phenomenon is based on the definition that they provide to the event. This means that the action depends on how one defines the issue. If there are different definitions to a phenomenon, then the action is bound to be different. In the above study it was found that there was a gap between how the affected people defined floods and the relief providers’ definition. Flood affected people defined it in terms of various problems that they face in a flood situation. Their definition was more problem oriented where floods are seen as a crisis situation that requires immediate attention and help. On the other hand the various stake-holders (relief providers) definition has been largely phenomenon oriented in nature. For them floods are more of a natural calamity, natural hazard that occur every year. There was no sense of urgency in their definition of floods. This is reflected in their action and in-turn results into people’s dissatisffaction (Khattri, 2011).

Coming to the second issue of unequal distribution of relief, it can be stated that disaster impacts a heterogenous population where groups differ on the basis of
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 caste, religion, socio-economic status, etc. Studies on the Indian villages have revealed that the dominant caste in a village is one which is economically and politically sound and well connected. This means that such groups will have greater control over the resources. Again, religious minorities in an area feel that they are being left-out in the whole process of relief distribution and disaster recovery. These issues have certain policy implications. Advocacy for rights of the minority groups during disaster recovery and rehabilitation needs to be incorporated into the disaster management plan. Relief providers should be more sensitive towards such issues.

2.5.5 Understanding Disasters for Better Management

For managing disasters in a better and more effective way, it is necessary to understand the disaster situation. William I. Torry in his review article on the anthropological work in the field of disasters has outlined a more important role for anthropologists in understanding the disaster situation and thus for its better management. The effective method of ethnographic fieldwork in a community or a region places an anthropologist in a position from where s/he can perform a useful function of “facilitating communication between beaurcracy and the community/society.” Anthropologists can act as “cultural translators” in Torry’s words. They can communicate needs and problems of the people which will eventually help the state machinery to prepare in a better way for future and also to undertake a more inclusive relief and recovery operation after the disaster. Torry further states that an anthropologist should relay the information between the community leaders and administrators throughout the emergency. Spillius, another scholar who talks about the role of anthropologists in a disaster situation, states that, anthropologists should become an “instrument for easing parties into positions permitting them collectively to solve problems.” In other words anthropologists can act as facilitators between the various stake-holders in a disaster situation.

The actual site of disaster is not the only place where anthropologists can do their fieldwork, there are other interesting sites where fieldwork can yield a better understanding. One such site to which Torry points out is the behaviour of complex governemntal and non-governmental organisations in a disaster situation. The organisational structure of these organisations, the decision making process during crisis, the negotiation of meaning of an event and labelling them as disaster events, all these fall well within the scope of an anthropological study. “Extended field studies- not quickie questionnaire surveys- probing deep into the beaurucratic behaviour observed in any disaster context” can be undertaken by anthropologists (Torry, 1979). An organisation can also be understood in terms of its expected role in a disaster situation and its actual achievements. An in-depth anthropological understanding can bring out the cause of any discrepancy, if it exists, between the expected role and actual achievements of an organisation. This in turn will help the organisations to think over their limitations and shortcomings that will eventually lead to better disaster management.

An important dimension, which till now has not been fully explored by anthropologists is the impact of disasters and their management in the urban context. India is urbanising fast. In a recently held census of 2011, it is estimated that 31 percent of the area comes under the urban category. Also, in the wake of increased disaster world over, urban centers are even more vulnerable than the rural ones. The increased vulnerability is due to the fact that population density
is more in urban areas, this means packed spaces with concrete buildings, which, if destroyed by an extreme event can cause more collateral damage. This scenario asks for a better understanding of disaster impact in urban centers. Torry is of the opinion that “anthropologists are capable of examining the social and economic risks among hazard prone urban population, as they have been in the tribal context” (Torry, 1979).

This discussion leads us to the next section where we will examine the anthropological research methodology which is the primary tool of understanding disasters and hence an aid in disaster management.

### 2.6 CHALLENGES IN DISASTER RESEARCH

The anthropological way of doing research involves an in-depth understanding of the community and area under study. This is largely achieved by conducting fieldwork in an area by using participant observation. Fieldwork in itself is not a single method, but a battery of other methods of data collection, together constitute a fieldwork. These include, structured and unstructured in-depth interviews, focused group discussions, life histories, case studies, etc. When an anthropologist returns from the field s/he is in possession of a large quantity of both qualitative and quantitative data which is then analysed to reach to a conclusion. However, the field of disaster research poses some different challenges that normal field situations do not. If a researcher decides to study for example the social impacts of disaster, s/he will choose an area affected by some disaster at a given point of time and then plan to move into that area for in-depth research. This first phase is known as ‘entering the field.’ It is quite challenging to enter the field affected by a disaster. The time of entering is very important. Disasters disrupt the normal life of the people and they are busy in getting back to normal, this is a very sensitive time when extra care needs to be taken. To give you an example from the author’s experience, the author had to abandon his field visit at the time villages were affected by floods, since lots of disturbance occurred in the field. Any attempt on the part of the researcher to force her/his entry would defeat her/his future plans of data collection. This, crucial time should be utilised in getting second-hand information from some local contacts in the field and newspaper reports that can be verified later on.

An ethical issue that emerges in disaster research is related with the extent to which a researcher can go to invoke response from the respondents. Since following a disaster, people are physically and mentally drained, it becomes impossible sometimes to continue with the interview. Such a condition can also occur in normal times but the magnitude is greater during an emergency situation or periods just following emergency situations.

Most discussions of the ethics of research assume that researchers seek to maintain a neutral or impartial stance, at least insofar as their role as researcher is concerned. Researchers face an ethical dilemma, often without being aware of it. This is the temptation to take sides. This dilemma, however, is not unique to disaster research; it clearly exists for example in studies that are conventionally described as social problems and deviant behaviour (Stalling, 2006). However, ethical issues in disaster research seem especially salient in events that become politically contentious. Accusations, suspicions and finger-pointing make the researcher more visible to everyone involved, both during data gathering and afterwards.
As researchers, we all have to undertake an important process of selecting respondents and making them understand that why they are selected, which is a necessary, but difficult task. However, in a disaster situation this task becomes even more difficult since people who are left out, become apprehensive about their status and they fear that since the researcher has left them and not recorded their version of reality, they may not get necessary aid at the time of disaster. This situation makes a disaster field even more challenging.

Anthropological research methods can generate rich data on the social impacts of disasters and in-turn can be very useful in effective disaster management. The intensive fieldwork tradition has the capability to understand the impact of disaster on the social fabric of a community. It is also useful in understanding social change.

The qualitative data generated through fieldwork can give insight into the indigenous knowledge system of the community under study, which can be integrated with the existing disaster management plan for better response and resilience. Also, the qualitative data helps in understanding the collective mind of the people regarding their problems, miseries, vulnerabilities, aspirations and expectations in a disaster situation (Joshi et al., 2010). Another advantage of this type of data is that, it can be put to statistical use by deciphering the dominant themes and major issues in the document by putting them to content analysis. Thus, anthropology and anthropologists have a lot to contribute positively towards understanding impacts of disaster and managing it by reducing vulnerability and increasing resilience.

### 2.7 OPPORTUNITIES FOR ANTHROPOLOGISTS IN THE FIELD OF DISASTER MANAGEMENT

You must have got a fair amount of idea from the above discussion about the role anthropology is playing and can play in the field of disaster management. This has opened up many areas where anthropologists can get and are getting employment. Those students who are more inclined towards conducting research in this field will find immense opportunities both in the national and the international arenas. Disaster management is becoming important with every passing disaster which is devastating lives. This needs quality research and documentation for better management. A lot of economic resources are being diverted to manage disasters. These resources are utilised to undertake projects on disaster impact and setting up of institutions of national importance to understand disasters. Institutes like the National Institute of Disaster Management (NIDM), Tata Institute of Social Sciences (TISS) and many Indian universities teaching courses on disaster management, open up immense opportunity for people trained in this special field. There are some international projects that are totally devoted to the study of disasters like the European Union 6th framework project entitled- “Integrated Health Social and Economic Impacts of Extreme Events: Evidence, Methods and Tools” which had anthropologists as their research team members and co-ordinators. Apart from this many national and inter-national agencies and NGOs are running big projects on disaster management and require personnel who are trained in the disaster research methodology. Thus, the field of disaster management offers a unique opportunity for cutting edge, path breaking research and social service where you can contribute towards making this earth a better place to live in.
2.8 SUMMARY

Thus, in the above discussion we have seen that a disaster strikes when hazards meet a vulnerable population. It occurs at the interface between society, environment and technology. It also causes a widespread devastation and damage to life and property. As a result people find their resources as insufficient to cope with such an event and require outside help and support in the form of material and counselling. Disaster management as a special area of concern at the national and international level has seen a shift in thinking from a relief centric approach to a more pro-active and processual approach which gives emphasis on pre-disaster preparedness, planning and mitigation and post-disaster relief, rehabilitation and sustained recovery. The anthropological knowledge and method of approaching disaster management is more people-centric. The approach of an anthropologist is local but its reach is global. To end this field of knowledge requires scholars that are trained in anthropology as we have seen in the above discussion that anthropologists have a bigger role to play in disaster management.

References


**Website Link:**

*The Disaster Management Act*. 2005. (The act is available online, on the website of National Institute of Disaster Management [NIDM] [http://nidm.gov.in/policies.asp](http://nidm.gov.in/policies.asp))

**Suggested Reading**


**Sample Questions**

1) What is a disaster? How have anthropologists defined the term?

2) What is disaster management? How can anthropological knowledge be used for better management of disasters?

3) What are man-made and natural disasters? Give example of each of the category.

4) What are the challenges in doing fieldwork in disaster situation? How can anthropologists overcome those challenges?

5) What is community based disaster preparedness (CBDP)?