
Natural Disaster And Human Development

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Received: 20 Jan 2025, Accepted: 25 Jan 2025, Published with Peer Reviewed on line: 31 Jan 2025

Abstract

Natural disasters like earthquakes, drought, flood etc have severe impact on human population as well as our environment. The day by day increase in these disasters is due to the climate change which is due to human activities. After viewing the recent trends it's observed that the major effects of disasters were on human that included displacement of community, increase in mortality rate as well as damage of the infrastructure and community. The countries having low income were more severely affected. Major causes of occurs of natural disasters include plate tectonics, climate change, weather pattern and human activities. Among these all causes, only human activities are under control of human. Human activities like deforestation, pollution etc are leading to deterioration of environment and occurrence of natural disasters too. All of these leading to human loss, economic loss, as well as environmental damage. Natural Disaster cause displacement, death, injury and harm to life of humans. Occurrence of natural disasters lead to damage of buildings as well as infrastructure indirectly economic loss. The environmental damage caused leads to habitat destruction as well as loss of biodiversity. Several mitigation strategies were made in order to reduce or cope up from natural disasters. These strategies were divided in three parts which are Pre, During and Post disasters solutions. Many technological as well as Innovative solutions were also made all which lead to reduction of natural disasters to an extent leading to development of society and humans. Due to the issues created by natural disasters, many opportunities were made for human development including development of Innovative ideas, rebuilding of society recovery as well as making of adaptation strategies and many more.

Key words- Natural Disaster, Rebuilding, Adaptation, Mitigation, Human development.

Introduction

Our nature is unpredictable and major events like earthquake, hurricanes, landslides and volcanic eruptions all have been a part of earth. The natural disasters are severely occurring phenomenon leading to loss of human as well as environment. The impact of natural disasters are very devastating which result in increase of mortality rate, displacement of people from one place to another loss of economy and damage of social systems etc. On the one side their is day by day advancement in science and technology meanwhile the occurrence of natural disaster is leading to harm and causing threat to human activities. The amount of such activities is increasing day by day due to several factors such as climate change and increase in population. The increase in number of natural disasters had lead to severe loss of economy. The impact caused by natural disasters are not limited to a period. They have a long term effect on every facet including instability in economy. The process of recovery maybe very hard and slow requiring much potential and support from government as well. Putting attention on natural disaster is much important in order to develop strategies which are effective for reduction of natural disasters and management. For preparing against natural disaster their is need to examine causes, consequences as well as response to natural disaster. By knowing these aspects we can better prepare for these and give a good response. Natural Disasters can have severe harm or impact on human population, causing loss of life, displacement of community as well as damage to economy too. By understanding the relation ship which natural disaster and human have between each other we can save our environment from prevailing natural disasters as well as reduce their occurrence to an extent.



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This is most crucial step before we try to solve any problem. Natural Disasters are being caused by several factors including tectonic plate movement, occurrence of earthquakes, tsunamis as well as volcanic eruptions are majorly due to movement of tectonic plates in the earth's crust . Weather pattern leading to occurrence of typhoon, cyclones due to pattern of weather like high pressure low pressure, Ocean currents etc . Geological processes like landslides, mudslides are being caused due to activities like erosion, weathering etc . Astronomical events leading to occurrence of many gamma ray burst, impact of meteorite as well as solar flares. All these factors have been caused due to human. All these factors have been caused due to human activities like burning of fossils, cutting of forest (deforestation) overuse of land, urbanization. All such human activities lead directly or indirectly to occurrence of soil erosion, flood , landslides etc. Pollution caused due to human contribution to major natural disasters like nuclear accident etc. After viewing all these causes of natural disasters as well as effects, there is a need to know solutions as well as ideas through which natural disasters would be stopped to an extent. Some of the solutions regarding to prevailing issue of natural disasters include Pre, During and Post disasters solutions several technological advancement were also put forth and innovative solutions all of which lead to Sustainable development of community and reduction of occurrence of natural disasters and human development as well. Making of several strategies, ideas, rebuilding as well as recovery all lead to advancement of human as well as overall development of community and humans. In turn leading to reduction in occurrence of natural disasters too. We all very well know that natural disasters are a major threat including several events like earthquakes, hurricane, flood , landslides leading to loss and damage of life.

AIM AND OBJECTIVES

The aim of the study is to know causes, effects of natural disaster and solutions which help to reduce their occurrence.

The objectives of the study are :

- 1 - What are natural disasters causes & effects .
- 2- How natural disasters are leading to human development?

METHODOLOGY

The methodology of this study is framed as a systematic literature and context to explore the effect , causes of natural disasters and solutions to solve or reduce this problem . This approach enables us to examine causes

of natural disasters, methods and solutions to slow down occurrence of natural disasters. This involves monitoring and exploration of existing research papers, identifying tools and trend challenges. These were the criteria which in turn lead to formation of appropriate content and material by which following study is done. Its divided into Data sources, Search strategy and Selection criteria. These are given below:

1- Data Sources - The primary data source for this study include previous articles and journal articles and videos of articles related to this topic. Some of the key websites are science direct, springer, wikipedia and other online book materials related to natural disasters and environmental crisis.

2- Search strategy- Search strategy involved a combination of keywords like natural disaster, environmental crisis, impacts of natural disasters on a human, human and environment.

3- Selection criteria- Selection criteria involved partition in which first part was based on the abstract and next one on the whole content and appropriate text to see whether it's relevant for our study.

More filters were added on the whole content, in order to frame appropriate content out of it. These all strategies lead to select a criteria and frame our study in different sections for knowing prevailing causes of natural disasters, which lead to formation of appropriate content and details related to natural disasters and environmental crisis. Exploration of causes, impacts, resolutions were easily driven out from this study by the formation of appropriate method.

WHAT ARE NATURAL DISASTERS CAUSES & EFFECTS.

Natural disasters are a part of humans daily life. It includes earthquakes, flood, volcanic eruption etc. Occurrence of these have severe impact on human population leading to loss of lives, causing harm to economy as well as displacement of human. As we all know the system of earth is linked with each other and when there is certain imbalance on earth's natural system natural disasters occurs. Due to ongoing activities of human like deforestation, urbanization as well as population growth all are leading to increase in frequency as well as severity of natural events or disasters. As per united nations, the occurrence of natural disasters has increased to much extent, resulting in million of death and much economic loss. There are several types of natural disasters classified into following categories such as.:

1 - GEOLOGICAL DISASTER

Such disasters occur when the geological system of earth is disband, which results in environmental degradation, damage to infrastructure as well as community including humans. All these are caused due to variety of factors, including tectonic plate movement as well as weathering process. Some of major geological Disasters are mentioned below

1 - Earthquakes

It is sudden release of energy which occurs when the tectonic plates move past each other leading to vast damage of buildings as well as environment.

2 - Volcanic Eruptions

It occurs when magma from surface of earth is released from volcano, It leads to widespread damage to environment.

3 - Landslides

It takes place when certain things leads to sloping down of work, debris. They are usually caused by various factors like continuous heavy rainfall, construction as well as deforestation

4 - Rockfall.

Due to weathering process, erosion, overuse of land day by day construction, rockfall occurs in which usually there is falling of rocks from slope.

5- Subsidence

It occurs when there is Extraction of groundwater which leads to collapsing of ground surface sink.

Now those factors which lead to geological disasters are mentioned here, Due to tectonic plates movement there is occurrence of earthquakes as well as volcanic eruptions. The volcanic activities lead to release of gases, ashes as well as rock in environment causing volcanic eruption. Due to weathering process including soil erosion, sedimentation etc lead to landslides as well as Subsidence. Major human activities like overuse of land, cutting of trees, mining etc lead to landslides, rockfalls etc. All of these geological disasters affect human as well as environmental plus our community. There is loss of life as geological disasters cause displacement of community too. Major buildings, roads are damaged, there is also damage of infrastructure. Due to occurrence of disasters there is soil erosion, major pollution leading to environmental crises. Damage of infrastructure, property as well as agriculture all leading to economic loss.

For solving this problem several strategies including monitoring and early warning system, building up of codes as well as zoning regulation can help to reduce the risk of infrastructure damage. Some Pre prepared plans help communities to take quick response against disasters. Educating people on this topic can also help to promote safety as everyone would be already prepared to take action.

2 - HYDROLOGICAL DISASTERS

These disasters are basically water related disasters due to abnormal events or extreme events related to water flow leading flood, drought as well as landslides. Such disasters have great and enormous impact on environment, human and the infrastructure. Major types of hydrological disasters include

1 - Flood - Due to overflow of water in a specific area due to heavy rainfall or dam failure, all leading to occurrence of flood.

2 - Drought - Due to abnormal flow of water there is water scarcity leading to drought causing major impact on lives of people causing harm to agriculture.

3 - Landslides- It occurs when there is movement of rock, down the slope often due to heavy rainfall.

4 - Storms - Consist of hurricane, typhoon as well as cyclones, when there is imbalance in pressure conditions there is a formation of low pressure system usually formed over warm ocean water all leading to strong wind occurrence as well as heavy rainfall.

Causes of hydrological disasters include climate change, deforestation, overuse of land, urbanization as well as agricultural practices. Climate change mostly leads intense as well as highly frequently occurring flood and drought. Deforestation and overuse of land for making of buildings, dams increases the amount of occurrence of hydrological cycle leading to flood and landslides. Major agriculture practices include using of fertilizers in irrigation all of these increasing risk of flood and drought.

3 - ATMOSPHERIC DISASTERS

These are also known as meteorological disasters, these occur when there is imbalance in the atmosphere all leading to hurricane, heatwave, tornadoes. All these have severe impact on human, communities, infrastructure as well as environment.

Major types of atmospheric disasters include

1 - Hurricane- These are tropical cyclone that are usually formed over warm oceans all of them characterized by strong wind and occurrence of heavy rainfall.

- 2 - Tornadoes - It is rotating column of air which touches ground and cause damage as well as destruction.
- 3 - Heatwaves- These are period of abnormally hot water which leads to illness related to heat and death in severe case.
- 4 - Dust storms- Due to these there is occurrence of those storms which include dust causing reduction in visibility as well as respiratory issues .

Major cause of atmospheric disasters include climate change , weather pattern , topography and human activities. Due to human activities climate changes and there is occurrence of heavy rainfall as well as heatwaves. Low and High pressure system contribute in atmosphere disaster too . Cutting of trees , deforestation all leads to increase in frequency of disasters. For managing these solutions regarding to prevailing issue of natural disasters include Pre, During and Post disasters solutions several technological advancement were also put forth and innovative solutions all of which lead to Sustainable development of community and reduction of occurrence of natural disasters and human development as well . Making of several strategies, ideas , rebuilding as well as recovery all lead to advancement of human as well as overall development of community and humans . In turn leading to reduction in occurrence of natural disasters too.

4 - BIOLOGICAL DISASTERS

Biological disasters are also known as bio disasters, these occur when there is an abnormality or imbalance in living system , like insect infestation, animal attack all of them leading to damage to human population as well as infrastructure .

Major types of biological disasters include:

- 1- Pandemics- These are mostly vast spread infectious disease which effect huge number of people all over country .
- 2 - Epidemics - These are such kind of disease which are restricted to a region.
- 3 - Insect infestation - It is basically diseases caused by for eg . Mosquitoes causing much harm to human health .
- 4 - Plant disease - Plant disease include fungal as well as bacterial infection causing harm to crops.

Major human activities like overuse of land, cutting of trees , mining etc lead to landslides, rockfalls etc . All of these geological disasters effect human as well as environmental plus our community. There is loss of life as geological disasters causes displacement of community too . Major buildings, roads are damaged, there is also damage of infrastructure. Due to occurrence of disasters there is soil erosion, major pollution leading to environmental crises. Damage of infrastructure, property as well as agriculture all leading to economic loss .

For solving this problem several strategies including monitoring and early warning system, building up of codes as well as zoning regulation can help to reduce the risk of infrastructure damage. Some Pre prepared plans help communities to take quick response against disasters. Educating people on this topic can also help to promote safety as everyone would be already prepared to take action.

Natural disaster are very hilarious as well as harmful events causing loss of life as well as displacement of people as well as whole community and economic loss too . By understanding the causes as well as effects of natural disaster several strategies can be developed which can lead to reduce the risk of natural disasters and promote development of society with human too.

Making of several strategies, ideas , rebuilding as well as recovery all lead to advancement of human as well as overall development of community and humans . In turn leading to reduction in occurrence of natural

disasters too. We all very well know that natural disasters are a major threat including several events like earthquakes, hurricane, flood, landslides leading to loss and damage of life.

HOW NATURAL DISASTER ARE LEADING TO HUMAN DEVELOPMENT.

Natural disasters are a part of humans daily life as we all are aware. They are also a major threat consisting of earthquakes, hurricanes, flood, landslides etc. Due to ongoing activities of human like deforestation, urbanization as well as population growth there is increase in frequency as well as severity of natural events or disasters. Major human activities like overuse of land, cutting of trees, mining etc lead to landslides, rockfalls etc. All of these geological disasters affect human as well as environmental plus our community. There is loss of life as geological disasters causes displacement of community too. Major buildings, roads are damaged, there is also damage of infrastructure. Due to occurrence of disasters there is soil erosion, major pollution leading to environmental crises. Damage of infrastructure, property as well as agriculture all leading to economic loss. Several types of natural disasters are caused by several factors and have different effect on human as well as environment. Natural disaster are very hilarious as well as harmful events causing loss of life as well as displacement of people as well as whole community and economic loss too. There is a need to understand and search strategies which can reduce their occurrence to an extent. By understanding the causes as well as effects of natural disaster several new strategies can be developed which would help to overcome this issue and reduce its severity and occurrence of disasters. Various solutions are made for stopping the severe occurrence of disaster as well as its management which promote development also.

Solutions derived are basically divided into three categories which are Pre - disasters, During disasters and post disasters solutions.

1 - Pre - disaster solutions -

These include following things such as early warning system, disaster risk reduction, climate change mitigation, environmental conservation etc. By establishment of early warning system one can predict the occurrence of natural disasters and prepare against them in turn reducing the risk of damage and the reducing the loss of life. By implementing building codes, flood control measures, landslides mitigation and other usable disaster risk reduction strategies one can promote safer life and less damage. By reduction of those activities which lead to greenhouse gas emissions one can help to reduce the risk of issues created due to climate change. By conserving, as well as protecting our natural system one can reduce the occurrence of natural disasters as well as promotion of sustainable development.

2 - During disaster solutions-

These include various things like establishment of those plans for emergency and various protocols which ensure us a rapid and effective response to natural disasters, establishment of search and rescue operation which can help to reduce the risk of death and saves lives. Making of shelter and relief for those communities which are affected during the disaster or which are suffering. Establishment of communication system in order to share information quickly and easily.

3 - Post - disaster solutions..

These include those solutions which are applied after the occurrence of disaster in an area after the occurrence of disaster in an area, they consist of, establishing those plans which help to recover from the disaster and in turn promotes sustainable development and also reduces risk of future disaster. By the management of debris as well as waste, one can promote public health and reduce environmental pollution to an extent. Organizing counselling camp providing psychological support help people to cure up from trauma in turn providing good mental health. By providing economic support to needy people all of us can promote economic recovery and also help to reduce the risk of poverty.

Some of technological Solutions include artificial intelligence, remote sensing, mobile use as well as internet of time. By using artificial intelligence as well as machine learning we can analyze the data quickly and predict occurrence of natural disasters. By help of remote sensing one can monitor and predict natural disasters by using drones etc. Internet of time also helps to monitor the natural disaster and give a response to the natural disasters in the real time. By help of mobile application one can transfer information among people and promote awareness among people and promote awareness and education on this issue.

Some of international cooperation include, establishment of such framework and protocol which can help to cooperate and coordinate to give a response towards natural disasters. By providing assistance of human recovery rate must increase among the suffering community. By sharing knowledge to communities their can be reduction of risk of natural disasters. By providing financial support to those communities which are suffering, we can reduce the risk of poverty.

The natural disasters require collaboration of several factors in order to be prepared, mitigated and give quick response and recover from the issues. By using all of the solutions mentioned above we can help to reduce the risk of natural disaster and inturn promote sustainable development and happy life.

From several time natural disasters have been part of human life, they influence human in several ways. On the one side natural disasters can have devastating effects on human meanwhile on the other side they also lead to development of human in various ways. Now let us take a look on positive impacts of natural disasters on humans. Natural Disasters provide everyone an opportunity for recovery as well as rebuilding which allows community to make as well as develop new infrastructure. Natural Disasters helps us to provide Innovative ideas for adaptation, as we see that communities and government responds to the challenges caused due to disasters. Occurrence of natural disasters helps people to come together and respond to recover from disaster inturn increasing community resilience. Natural Disasters create opportunities related to economy like in construction etc. Natural Disasters promote environmental sustainability by making green infrastructure. Making of several strategies, ideas, rebuilding as well as recovery all lead to advancement of human as well as overall development of community and humans. In turn leading to reduction in occurrence of natural disasters too. We all very well know that natural disasters are a major threat including several events like earthquakes, hurricane, flood, landslides leading to loss and damage of life. So according to the disasters specefic strategies are set which helps to overcome them and also develop humans and community. So that it can be strong and tough for upcoming harmful events. Most important is the knowledge by which each and every one can understand plus provide solutions and put efforts for saving their community, themselves and the environment. In turn leading to a safer and happier society plus developed country with power tool in everyone's hand against any kind of disaster.

CONCLUSION

Natural disasters are very significant threat to human population, society, infrastructure as well as environment. Disaster management is much mandatory or we can say important for reduction of risk of natural disasters and leading to development of humans and society. For all these, understanding of natural disasters their causes, effects and knowing risk of natural disaster is much mandatory for effective disaster management. Using and working on those strategies which help in reduction of natural disasters like early warning system, which alerts community against natural disaster and doing such kind of construction which can tolerate disasters and environmental crisis also. Majorly due to economic ongoing activities of human like deforestation, urbanization as well as population growth all are leading to increase in frequency as well as severity of natural events or disasters. As per united nations, the occurrence of natural disasters has increased to much extent, resulting in million of death and much economic loss all due to human activities. There are several types of natural disasters including geological, biological etc are caused due to various factors and leading to occurrence of disasters in turn creating panic and issue to human communities. Due to

all these mitigating as well as effective strategies are mandatory which can not only reduce the occurrence of natural disaster but also leads to human development. By knowing such plans which have preparedness , consisting of emergency shelters as well as well communication system in order to provide current information from one place to another immediately and providing a quick response too .Natural disaster are very hilarious as well as harmful events causing loss of life as well as displacement of people as well as whole community and economic loss too . There is a need to understand and search strategies which can reduce their occurrence to an extent .By understanding the causes as well as effects of natural disaster several new strategies can be developed which would help to overcome this issue and reduce it's severity and occurrence of disasters. Some of major cooperation from International countries like sharing the knowledge of infrastructure their plans , strategies as well as techniques in order to provide effectiveness by joining people together and creating public awareness and providing education about natural disasters, what are their major causes and how human are leading to occurrence of natural disasters. After knowing this they may have much knowledge what to do and what not to do. Inturn providing development of society human and sustainable development too. As each and everonr is aware that the proess of recovery is very hard and slow requiring much potential and support from government as well . Putting attention on natural disaster is much important in order to develop strategies which are effective for reduction of natural disasters and management. For preparing against natural disaster their is need to examine causes , consequences as well as response to natural disaster . Natural Disasters have both negative as well as positive impact on our society as it's causing harm but on the other side it is also making people aware and letting them know that how to save themselves from these hilarious occurrence.

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