

NATURAL DISASTERS INTENSITY ANALYSIS AND CLASSIFICATION

PROBLEM STATEMENT:

Natural disasters not only disturb the human ecological system but also destroy the properties and critical infrastructures of human societies and even lead to permanent change in the ecosystem. Disaster can be caused by naturally occurring events such as earthquakes, cyclones, floods, and wildfires. Many deep learning techniques have been applied by various researchers to detect and classify natural disasters to overcome losses in ecosystems, but detection of natural disasters still faces issues due to the complex and imbalanced structures of images.

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| Why does the problem affect? | Structural damage to buildings. Loss of utilities like electricity and water. Debris cleanup and waste management solutions. Infrastructure-related problems such as closed roads and communication losses. |
| What is issue? | Natural disasters can cause great damage on the environment, property, wildlife and human health. These events may include earthquakes, floods, hurricanes, tornadoes, tsunamis, landslides, wildfires, volcanic eruptions, and extreme temperatures. |
| When does the issue occurs? | Different disasters occur due to various causes. Causes for such calamities can be contributed to deforestation, soil erosion, and pollution. The major causes of catastrophic disasters are natural phenomena occurring in the earth's crust as well as on the surface. |
| Where is the issue occurring? | Disasters can be caused by natural, man-made and technological hazards, as well as various factors that influence the exposure and vulnerability of a community. |
| Why is it important that we fix problem? | Disaster management measures can help removing people and property from a threatened location by facilitating timely and effective rescue, relief and rehabilitation at the place of disaster thereby reducing loss of property, protecting people and reducing trauma among people. |