



FORECASTING AND MANAGEMENT OF DISASTERS TRIGGERED BY CLIMATE CHANGE

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It is incontrovertible that human interferences have warmed the atmosphere, ocean, and land. The change in climate, extreme weather-related disasters, and sudden as well as the slow onset of disasters such as sea-level rise are threatening sustainable development and community resilience. This somehow is leading to cycles of poverty across the globe and loss of livelihoods. A load of climate change impacts is not uniformly distributed across the world due to different exposures, coping abilities, and vulnerabilities. People, ecosystems, livelihoods, environmental services, infrastructure, resources, etc including social, cultural, and economic assets are all adversely exposed to natural or manmade hazards. Extreme weather-related events have been found to increase with increased frequency and intensity worldwide as a direct consequence of rising temperatures. With the development of multi-hazard early warning systems, many lives are being saved but the fact is the number of people who are exposed to disaster risk is increasing as the population is increasing.

***Our Mission
to reduce
collective net
greenhouse
gas emissions
at least 50-
52% below
2005 levels by
2030.
(UN Foundation)***

The crisscrossing of the many man-made and natural disasters, particularly extreme weather-related events have complicated the risk assessment further. The overlap of some natural and manmade disasters with the Covid -19 pandemic has impacted people's life to a great extent which further demonstrates the need for a great investment in disaster risk reduction and to strengthen the preparedness for multiple disaster scenarios.



A thought can be given to disaster prevention to reduce the overall vulnerability of Social, physical, environmental, or economic factors or processes that actually affect the susceptibility of the community.

Taken as a whole, the range of published evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time.

(Intergovernmental Panel on Climate Change, Published by NASA)

The preparedness and mitigation would involve early warning systems as well as Decision Support Systems (DSS) based on real-time data. Developing tools for DSS should be a primary effort for mitigating disaster risk assessment and management. Constant refining and improvement are one of the representative features of 'developing the tools'.



Once such a system of forecasting and decision support system framework is developed then the capacity building of individuals and institutions would be the next step. Boundary conditions, however, remain that these systems should be user-friendly and easy to use by the end-users or stakeholders. Climate change will continue to happen, hence early warning, decisions making at the local level, and mitigation strategies will be the best coping options.