Advances in Meteorology

Special Issue on
Climate Risk Assessment, Coping, and Adaptation

CALL FOR PAPERS

Climate change associated with extreme disastrous phenomena and negative impacts is a well-established and accepted fact globally and locally over the past decades by both scientific and local communities. Understanding the trends of temporal and spatial variability of the main climate properties, the delineation of dry and wet areas, persistence and severity of drought, and consequential risks assessment is essential for working on appropriate coping and adaptation measures by local communities.

Accurate assessment of climate risk and conversion of risk assessment results into prevention and mitigation is very crucial but also a challenge, although various scientific and management studies are available in this respect. Transferring the results of risk assessment to local communities in risk prone zones/regions is particularly challenging, especially for the organizations working locally to provide assistance and risk reduction measures. Climate change associated with a number of natural disasters such as extreme temperature, frequent lightning and thunderstorms, hail storms, flood, cyclones, coastal sea surge, ice melting, and drought is the greatest concern today, warranting the development of generic and specific risk assessment tools for reducing the potential impacts of various risks. This involves acquiring or developing a variety of data sets, assessment criteria, process and assessment frameworks, techniques, and quantitative methods with links to participating communities, which are to be factored into result-oriented risk reduction solutions.

Coping and adaptation in the short and long term depend upon risk assessment. This can be linked with agriculture, nonagricultural production systems and livelihood of local communities while promoting sustainable development consistent with potential and future climate risks. This may be addressed globally or locally by involving different stakeholders who are likely to experience these risks in the future. Coping and adaptation opportunities also differ from region to region through their response to a range of natural hazards. For example, local indigenous knowledge systems coupled with scientific investigation and community practices can be useful in addressing adaptation options. In situ coping and adaptation with indigenous knowledge vis-à-vis in a new environment under forced circumstances should be discussed in the light of livelihood options and sustainable development. Issues such as availability of funds, scientific solutions, and tested practices may be considered while addressing this component.

Overall, this special issue provides ample scope and opportunity to scholars, researchers, and practitioners to contribute in the specific areas outlined above. Research and practice based contributions in addition to review articles are welcome in this special issue.

Potential topics include but are not limited to the following:

- Extreme weather and climate with temporal and spatial variation
- Climate risk assessment (regional and local cases)
- Climate change assessment process, data, tools, and techniques, modeling with applications, and case studies
- Meteorological disaster risk assessment and mitigation measures
- Disaster risk reduction (DRR) measures and strategies
- Coping mechanism and indigenous knowledge system for flood, drought, cyclones, and extreme temperature
- Coping and adaptation options
- In situ and forced adaptation
- Climate change adaptation planning, in practice and sustainable development
- Availability of climate funds, scientific solutions, and tested practices for risk reduction

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/amete/crca/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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