Climate Change, Uncertainty, and Adaptation Strategies

Modelling, Policy Framework and International Coordination

Special Issue

Call for Papers

Background

Climate change has caused severe and irreversible impacts on the natural systems which underpin the sustainability of human well-being. Not only climate change will destroy human and physical capital but also drive dramatic changes to ecosystems and economic activities (Lee et al., 2015; Asmus et al., 2019; Dogru et al., 2019). Kompas et al. (2018) using a dimensional intertemporal CGE trade model to account for the various effects of global warming on GDP growth over the long period of time report that losses in the global GDP are around US$3,934.25 billion a year in terms of 2100 GDP if parties comply with the +2°C scenario of the Paris Climate Accord, but reach up to US$17,489.72 billion a year over the long run by the same time. The scales and pace of climate change have become increasingly rapid; hence strong climate action at national, regional and global levels are necessary to sustain foundations of our future human well-being.

As an international legal instrument, the Paris Climate Agreement has the potential to deal with the increasing scale and urgency of the climate challenge but significant challenges remain to be overcame so that its potential can be realised. Few topical issues include uncertainties with economic and environmental consequences and outcomes with climate change mitigation and adaptation policies, particularly in energy and agricultural sectors. These uncertainties act against effective design and implementation of climate change policies. Consequently, these hinder the efforts of cooperation and their impacts at community, national, regional and global levels.

Whilst research on climate change strategies and management are growing remarkably over the last few decades (see, e.g, World Bank, European Commission) little consensus emerge with respect to best practices in terms of modelling uncertainties and the impacts of both climate change itself and climate change policies including risk reduction, adaption and building resilience at various levels of cooperation. Moreover, as noted by Coulter et al. (2019, forthcoming), "*climate knowledge may not be accessed, examined, or shared to support active adaptation when future-oriented adaptation narratives are neither explicit nor common*". This issue happens even in countries having high capacity to adapt to climate change.

This special issue aims to provide submissions insights into three related areas of research: modelling, policy framework and international cooperation. Particularly, we seek to expand both theoretical and empirical frontiers of modelling the impacts of uncertainty on the climate change policies and the consequences of international cooperation. To do so, we welcome both theoretical and empirical studies for this issue. We suggest following topics for submissions but we are looking forward to other related topics that scholars believe that their work fits in this special issue.

1. Climate change negotiations for +2° world scenarios
2. Climate variability, risk and vulnerability
3. Resource mobilisation mechanisms for adaptation
4. Community-based adaptation and risk reduction
5. Strategies for environmental resilience
6. Best practices in climate adaptation strategies

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Submission guidelines

Manuscripts should be prepared following the normal guidelines for the journal and may be submitted through the journal's online system. Please ensure you check the "Climate Change, Uncertainty, and Adaptation Strategies" option when submitting your manuscript.

Formal request for professional language editing services might be required before decisions for final acceptance can be granted.

Manuscript submission deadline: June 30, 2020

References

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Kompas, T., Pham, V.H., Tuong, N.C., 2018. The effects of climate change on GDP by country and the global economic gains from complying with the Paris Climate Accord. *Earth's Future*, 6(8), 1153-1173.

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