

Development and climate change in Small Island Developing States

The evidence is increasing that Small Island Developing States (SIDS) will be heavily impacted by climate change (Nurse *et al.*, 2014), especially among coastal communities (Formosa *et al.*, 2017), and the challenge of fostering their development will be more difficult as a result. Many varied policy and practice responses to climate change have been proposed and critiqued, from migration, to physically engineering islands, to societal changes (Gerrard and Wannier, 2013; Yamamoto and Esteban, 2014), including emphasis on integration with sustainable development planning (Ayers and Huq, 2009). But what this means for specific island communities is still largely unknown (Nunn *et al.*, 2007). Although attention toward the challenges faced by SIDS because of climate change, and because the social construction of climate change is gaining momentum (Kelman, 2014), lack of data and research capacity remains a major problem. This is especially true for the world's most impoverished and vulnerable communities in SIDS, which paradoxically are frequently neglected even in research about SIDS' climate change impacts and adaptation (Lewis, 1999; McCubbin *et al.*, 2015). Furthermore, given the necessary interdisciplinary nature of dealing with climate change, there has not yet been a clear identification of methodological frameworks capable of operationalizing the required theoretical and practical aspects at the state/island and local levels. This too delays the comprehensive understanding of how specific development interventions can enhance adaptation, and how funds for addressing the negative effects of climate change are fairly and equitably distributed (Remling and Persson, 2015).

The contributions in this special issue, written by well-established scholars, as well as emerging authors and practitioners in the field, include conceptual papers and case studies of communities based in the Caribbean Sea, and the Indian, Atlantic and Pacific Oceans. One of the key climate change impacts affecting SIDS relates to sea-level rise, which is not directly covered in this issue, but it is extensively covered in the literature and has been prominently investigated even before the seminal "Small States Conference on Sea Level Rise" held from 14-18 November 1989 in Malé, the Maldives (www.islandvulnerability.org/slr1989.html). This lack of coverage in this special issue is not because we do not assign importance to this matter but rather as our desire to provide material which is new, important and original. We wish to add new dimensions to the science, to be used for policy and practice, rather than reiterating what is deservedly covered so abundantly elsewhere.

Furthermore, the papers in this special issue, quite rightly, cannot avoid basing parts of their discussion and analysis on sea-level rise and its implications for SIDS, noting historical (e.g. Lewis, 1989) and contemporary (Nurse *et al.*, 2014) examinations. The papers here explore how vulnerable and resilient communities from SIDS are affected by climate change, propose and evaluate adaptation activities, identify factors capable of enhancing or inhibiting SIDS people's long-term ability to deal with climate change and critique the discourses, vocabularies and constructions around SIDS dealing with climate change.



This concern is expounded by Godfrey Baldacchino who argues that climate change impacts are based on an implicitly western epistemological understanding of “the future” that does not necessarily go down well in other contexts and cultures, and especially SIDS. As a result, he posits, there is a contradiction between planning (a pressing concern for the middle class) and surviving the present (a concern for low-income households). It becomes a struggle to service current endogenous concerns through exogenously determined projects driven by climate change. Along similar lines, Milla Vaha explores how climate justice literature has addressed the concerns of endangered SIDS, from the perspective of potential relocation, to have legitimate rights-claims toward international society. By looking at the still hypothetical yet actually proposed scenarios of endangered states, like Kiribati and the Maldives and corresponding host countries, New Zealand and Sri Lanka, she investigates responsibilities toward these states by countries that in the past have been identified as their potential new homelands.

In the three papers that follow, authored by Patrick Nunn and Roselyn Kumar and Aideen Foley, the focus turns to climate–human interactions within communities in SIDS. Nunn and Kumar explore how to operationalize interventions that are capable of ensuring effective and sustainable livelihoods, given climate-driven environmental change. Foley discusses how the smallness, boundedness and isolation of many SIDS may mean that climate impact assessment methods applied at broader scales cannot simply be downscaled to island settings. The discussion suggests alternative forms of knowledge production and robust decision-making, such as the hybridization of science and indigenous knowledge, which can promote awareness raising and enhancing perception of climate change in island communities. Along similar lines, Hilary Bambrick in her paper discusses alternatives to resource extraction and proposes options for climate compatible development in the Pacific that is health-promoting and builds community resilience in the face of increasing threats from climate change.

The penultimate paper, by Rory Walshe, Adam Bumpus, Joelle Auffray and Denis Chang Seng, examines how perceptions of climate change differ in Pacific island countries, finding considerable contrasts and differences in the understanding of climate change amongst key demographic groups, as well as between the SIDS investigated, thus confirming the danger of adopting one-size-fits-all policies. The final paper in the issue, authored by Stuart Capstick, Sarah Hemstock and Helene Jacot des Combes, examines the role of visual arts to communicate environmental change in SIDS, with a view to engendering a wider public involvement in climate change threats and in promoting sustainable living. While the findings indicate resonance in the broader literature on communication and public engagement, this study, as all the special issue, focuses specifically on communities based in the Caribbean Sea, and the Indian, Atlantic and Pacific Oceans.

The outcomes of this special issues emphasize the importance of stronger links amongst climate change science, policy and action in SIDS and in those engaging with SIDS, both to increase the effectiveness of policy and actions and to boost scholarly enquiry, in the context of communities often excluded by mainstream research. This special issue also provides information that could be useful for the upcoming special report commissioned by the Intergovernmental Panel on Climate Change that aims at addressing vulnerabilities, “especially in islands and coastal areas, as well as the adaptation and policy development opportunities”, following the Paris Agreement[1]. Finally, this issue may be useful in supporting the policy community with further scientific evidence and balanced discussion on climate change-related issues in SIDS,

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1. Forty-Third Session of The IPCC Nairobi, Kenya, 11-13 April 2016.

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