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# Global Environmental Change

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## Global Environmental Change: 30 years of interdisciplinary research on the human and policy dimensions of environmental change

In their 2010 Global Environmental Change (GEC) 20th Anniversary editorial, Neil Adger, Kate Brown and Mike Hulme noted that “the crisis of the environment is more acute, more intransigent and more widespread than ever, despite scientific knowledge being greater than ever” (Adger et al, 2010). Written after the perceived failure of the COP15 Climate Summit in Copenhagen, and despite some progress over the last ten years, their assessment remains all too pertinent today.

Emissions of greenhouse gases have increased since 2010 (Peters et al, 2020), global temperatures are now 1.1 °C above pre-industrial levels (IPCC, 2021) and progress towards the twenty biodiversity targets set in Aichi in 2010 has been limited at best for most targets (IPBES 2019). The consequences of such failures are becoming more and more familiar - from bleaching of the coral reefs and biodiversity loss to the pervasive problem of ocean plastics and extreme weather events caused by climate change. In 2021 alone we experienced record heat waves, unrelenting multi-year droughts, and harmful hurricane and fire seasons. Worldwide, many communities suffered under many of these impacts simultaneously, on top of other stressors such as the global pandemic and economic downturn. All of these impacts were marked by the unequal distribution of social, economic, and environmental burdens within and between countries. Yet, there are reasons for cautious optimism with increasing public awareness and concern of environmental issues in many countries. Moreover, multiple actors from youth movements, frontline communities, local and national governments, businesses and NGOs are dramatically ramping-up their ambition for a sustainable and just world.

Amidst this backdrop, and since it was first published in 1990, GEC has been a leading outlet for research untangling the complexity of the human and policy dimensions of environmental change. In their editorial of 2014, the GEC editors noted that “Global Environmental Change has always maintained a wide scope, publishing multi- and interdisciplinary perspectives from the social sciences, but often incorporating physical sciences” (Conway et al, 2014). As incoming editors, we have maintained this scope and aim to build on the hard work of previous editorial teams who have guided the journal to its current position as one of the go-to journals for interdisciplinary research on global environmental change. To this end, we would like to formally recognize the previous editors of Global Environmental Change for their incredible contributions to the journal: Ken Mitchell, Martin Parry, Andrew Goudie, Michael Williams, Neil Adger, Katrina Brown, Mike Hulme, Declan Conway, Michelle Betsill, Jon Barnett, Louis Lebel, Mark New and Karen Seto. They have led the journal to a very healthy position, with significant growth both in impact and number of submissions. Our own ambitions are to continue these trends while actively pursuing different

ways to broaden the participation of underrepresented authors, and to ensure more diverse themes as well as submissions from low- and middle-income countries, encourage manuscripts focusing on emerging topics that represent the multidimensionality and complexity of sustainability problems, and examine how they affect communities, ecosystems and infrastructures.

The new editorial team features representation from across the six inhabited continents with Co-Editors-in-Chief Eduardo S. Brondizio (Indiana University, USA and University of Campinas, Brazil) and Maria Carmen Lemos (University of Michigan, USA) being joined by Co-Editors Dabo Guan (Tsinghua University, China), Neil Jennings (Imperial College London, UK), Cheikh Mbow (University of Pretoria, South Africa), Harini Nagendra (Azim Premji University, India) and Petra Tschakert (University of Western Australia). We have recently expanded the Editorial Board to reflect a wider geographical range, ensure gender balance, and diversify areas of expertise.

This editorial accompanies a collection of ten invited commentaries from authors among the highest cited GEC papers (on a per year basis) from 2001 to 2019. While the impact of GEC papers during the past 30 years goes far beyond their citation profile, our selection is also intended to provide a window to the diversity of scholarship published by the journal. The authors have been asked to reflect on how their specific area of research has developed since their paper was published and to offer suggestions for areas of future endeavour. To reflect our long-term ambition for the journal, the authors have been requested to invite an early career researcher or researcher from the Global South onto their author team to help broaden the perspectives included in the papers. We are pleased to share their original contributions and their reflections on the development of these fields as well as emerging challenges and opportunities going forward.

This collection reflects well the aims and scope of GEC. It illustrates the contribution of GEC to the development of cross-cutting conceptual frameworks, the operationalization of emerging concepts, the explanation of mechanisms connecting social and environmental change, the impact of social processes on global scale biogeochemical processes, changes in societal understandings of global change, and the practice of science for solutions. These papers also illustrate diversity in scale and level of analysis, methodological approaches, and disciplinary and geographic foci, all of which are hallmarks of GEC. One thing these papers have in common is that they were original, often provocative, and resonate with our broad and diverse readership. Not surprisingly, a common theme among the commentaries is the realization that, despite tremendous advances in understanding, there is still much more work to do. We are up to the task and invite authors old and new to become part

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of this effort. We hope the articles and their accompanying commentaries are both an inspiration and an invitation.

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