## 95. Geography and global environmental change

by Michael Meadows

Geography explores how environments emerge through natural processes, how societies produce, organise, use and misuse such environments, and how society is influenced by the environments it occupies. It sits at the interface of the natural and social sciences, and is thus in a unique position to understand global change and its implications for humanity and the environment. Geographers can help bridge and even close the gap between the social and natural sciences to resolve the global environmental crisis, as the International Geographical Union (IGU) reports.

The International Geographical Union (IGU) has more than 40 commissions, with members drawn from across the continents.<sup>1</sup> Their objectives vary, but many are working on elements of the human–environment interface and some are engaged directly in research relating to global climate and environmental change, from scientific, socio-economic and cultural perspectives. A fundamental goal is to involve geographers from around the world in developing global reach by participating in commission events and activities.

The commissions are engaged in organising scientific meetings and publications on topics ranging from climatology, geoparks and cold regions in the realm of the physical environment, to socio-economic and cultural fields, including urbanisation, tourism, indigenous knowledge, political geography, population and vulnerability. Some activities and outputs relate very strongly to global environmental change. The Commission for Climatology, for instance, promotes research on many scientific and technical aspects of climate change, while the one on cold region environments focuses on environmental change, integrating knowledge from social and physical sciences in understanding longterm change and responses to it. Cold-climate regions face increased climate change impacts, the consequences of which are not purely physical. These issues require the integration of social, economic and environmental approaches.

Other IGU commissions have a strong social science perspective on environmental change. A key aim of the commission on hazards and risks is to highlight the role of geography in living with, responding to and mitigating so-called natural disasters. Small island states are, of course, especially vulnerable to the impacts of climate change. The commissions on islands and on marginalisation, globalisation, and regional and global responses explore the complex nature of marginality, given that marginality persists and is manifesting itself globally in new ways. Commissions also engage with major global research agendas, such as Future Earth; they are encouraged to form partnerships and affiliations with other IGU commissions to ensure that the interdisciplinary nature of research on global climate and environmental change is fully embraced.

## **UN International Year of Global Understanding**

Global action requires a global level of understanding. The International Year of Global Understanding (IYGU) aims to bridge the gap in awareness between local actions and their global effects. This IGU initiative<sup>2</sup> in 2016 is specifically related to the need for interdisciplinary research on global environmental change. It aims to facilitate understanding of global processes, to encourage people to make daily decisions in light of global challenges, and to contribute to bottom-up initiatives that connect individual, local action to global sustainability. It should enable people to move from knowing about sustainability to living sustainably; it also intends to strengthen collaboration between the natural, social and cultural sciences.

Humans are responsible for creating worldwide challenges such as climate change; they can also bring solutions. If individuals are aware of what their daily activities mean for the planet, they can take appropriate action. The IYGU thus encourages a transdisciplinary perspective, starting with everyday actions rather than scientific disciplines, first learning how human action produces ecological problems and then seeking appropriate sciencebased solutions.

## Notes

2. IYGU's global partners include the International Social Science Council, the International Council for Science, the International Council for Philosophy and Humanistic Studies, and the International Human Dimensions Programme on Global Environmental Change. See www.global-understanding. *de*/ for further information.

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<sup>1.</sup> See www.igu-online.org/site/?page\_id=558.



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