

IGBP emerged in the mid-1980s in response to the growing recognition that understanding the Earth system required an international, integrative effort. It was an ambitious undertaking that, by almost any measure, has turned out to be a resounding success. Suffice it to say that the advances in Earth-system science or the development of the Anthropocene concept would not have happened without IGBP.

But all good things must eventually come to an end: IGBP will close at the end of this year to make way for the Future Earth initiative. While the Secretariat in Stockholm and the global Scientific Committee will cease to exist, many of IGBP's core activities and international projects will continue under the sponsorship of other coordinating bodies, such as Future Earth.

The development of a highly collaborative global community of researchers interested in Earth-system science is one of IGBP's greatest achievements. Many in our community say that IGBP provided the information, tools and experiences that helped them to develop a global perspective – a worldview with cultural awareness and awareness of the diversity of the environmental changes under way.

We want to draw attention to the role our national committees played, particularly in the early development of IGBP. Although their number has fluctuated over the years, even in this final year of IGBP over 50 countries have IGBP or other global-change committees.

These national efforts built capacity by organising IGBP-oriented scientists within their own countries and helping to connect them with the broader international IGBP community (see page 14 of this issue). Many committees were also instrumental in informing local and national governments on the many nuanced aspects of global change.

NASA played a key role in laying the intellectual groundwork for IGBP, and many of our researchers worked very closely with NASA and other



Chair
James Syvitski



Former Executive Director
Sybil Seitzinger

Earth-observation agencies such as the National Oceanic and Atmospheric Administration (NOAA) and the European Space Agency (ESA) (see page 24 of this issue). This collaboration was fundamental for

much of IGBP's success and that of its projects.

Among IGBP's many contributions to policy, we are particularly proud of its scientific contributions to the Intergovernmental Panel on Climate Change (IPCC). As noted on page 20 of this issue, IGBP contributed to the IPCC since the very first assessment report: IGBP fed its research via its community's authorship and review of chapters, participation in workshops and panels, and the publication of papers and models that were key to the assessment.

Most of the heavy lifting has been done by IGBP's core projects. Each of them took on a domain of the Earth system, coordinated international research and, more recently, connected it to societal issues. Whereas our projects have mostly organised science while providing timely updates and early warning of newly discovered issues, they have also converted their science into useful products – for example, a land-use classification system and global databases of greenhouse gases, land-use change and historical sea-level rise – and summaries for policymakers on such topics as black carbon and ocean acidification.

The list of those who have contributed to IGBP's success would run into tens of pages. Here we must simply thank all members of our community (young and not so young) and the IGBP Secretariat through the years. We are also grateful to our funders; the International Council for Science (ICSU); decision-makers who have contributed to and used the work of IGBP; and the broader global-environmental-change scientific and policy communities.

We will celebrate IGBP's legacy and hand over the baton of global-change research to Future Earth at this year's American Geophysical Union meeting in San Francisco. We warmly welcome you to attend this event! ■

As IGBP draws to a close, fragments of the programme's past have managed to find their way to my desk. Among them is a slightly yellowing copy of the first issue of what used to be called the *Global Change Newsletter*. Published in May 1989, this issue marks the beginning of IGBP's diverse and highly successful communications efforts.

The *Global Change Newsletter* started out primarily as a source of information for the IGBP community and other interested scientists. It carried reports of various committee meetings and workshops around the world, as well as updates from the Secretariat and IGBP's national committees.

From about the mid-1990s, the newsletter began to carry an opinion piece by the Executive Director and, beginning in the late 1990s, several opinion pieces as well as articles addressing outstanding scientific questions. Perhaps the most famous and best cited of these is the article on the Anthropocene by Paul Crutzen and Eugene Stoermer, published in issue 41.

Going through the early newsletters, I found some gems that should delight not only scientists but historians of science, editors and communicators too. For example, I stumbled across a photograph of IGBP Scientific Committee members and Secretariat staff in front of the falling Berlin wall in 1989; a report from the USSR national committee; recollections of IGBP's setting up by Thomas Malone; and brief thoughts by Eric Barron on the relative merits and demerits of "rich tapestry" versus "flagship" models of IGBP and its core projects.

In 2009 – the year that former Director of Communications Owen Gaffney and I joined IGBP – the newsletter underwent a transformation, emerging in the form of the magazine you have been reading for the past several years. Owen and I both wanted to reach a much wider audience that included policymakers, business and industry, the media and the general public. We also wanted to introduce a more contemporary look and feel.

Owen thus oversaw a thorough redesign: he introduced a front-half including editorial and news sections, and a back-half containing commissioned and in-house articles. Although research emerging



Senior Science Editor
and Advisor
Ninad Bondre

from IGBP's core projects continued to inform the content, we opened the magazine up to perspectives from other actors and on other topics.

Editing the magazine has been a great learning experience. My colleagues and I have received overwhelmingly positive feedback over the years.

It's not fair to single out any one article, but for me the opportunity to interview Elinor Ostrom – soon after she was awarded the Nobel Prize in Economics and not long before she passed away – was certainly a high point.

As the editor of the final issue, here I can voice appreciation of the work of the editors, freelance copy-editors, communicators and designers involved in producing *Global Change* over the years. In alphabetical order these are: Anna Bastås, John Bellamy, Gunilla Björklund, Clare Bradshaw, Hilarie Cutler, Susannah Elliot, Owen Gaffney, Erik Huss, Naomi Lubick, Sheila Lunter, Suzanne Nash, Petra Nilsson, Angelina Sanderson, Wendy Smith, Mary Ann Williams and Bill Young. Suzanne Nash owes special mention for helping IGBP out from time to time even after her retirement.

I acknowledge the Secretariat staff who helped out in all sorts of ways including mailing and distribution, and beyond. On behalf of IGBP I also thank its regional office in Brazil, which has mailed out copies of the magazine to developing countries around the world for many years. Finally, the newsletter/magazine would not have been what it is without the time and energy of its many contributors. Certainly the articles I edited underwent numerous revisions, and I am grateful to all the authors who worked with me for their contributions and patience.

Future Earth, the initiative that will replace IGBP, is focusing on various modern communication tools including blogs and social media. So it should. Yet I am always reminded that many readers of the magazine appreciated having something to hold and flip through. I hope that Future Earth will consider including a magazine in its portfolio of products. If so, the *Global Change* magazine will serve as an excellent template. ■

PLANETARY BOUNDARIES

Nine identified
Three crossed

Global CO₂ budget
Variations and trends

A vision for 2050
The future could be bright

Climate-change index
A new tool for the public and policymakers



Global Change

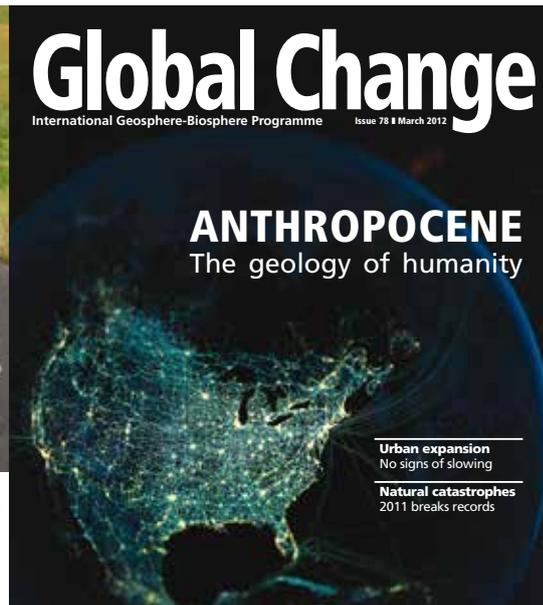
International Geosphere-Biosphere Programme Issue 78 ■ March 2012

ANTHROPOCENE

The geology of humanity

Urban expansion
No signs of slowing

Natural catastrophes
2011 breaks records



Global

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PLANET UNDER PRESSURE

- WATER
- FOOD



GLOBAL CHANGE NEWS LETTER

The International Geosphere-Biosphere Programme A Study of Global Change (IGBP) No. 1 May 1986

Introduction

In September 1986, the International Council of Scientific Unions (ICSU) General Assembly decided to establish the International Geosphere-Biosphere Programme: A Study of Global Change (IGBP). ICSU has a long experience in developing major international research programmes, such as the International Geosphere-Biosphere Programme (IGBP), and the World Climate Research Programme (WCRC) in collaboration with WMO, but the IGBP will be the most wide-ranging, and in its impact on our understanding of the future possibilities for mankind, the most important project that ICSU has ever undertaken.

The ad hoc Planning Group for the IGBP (IGBP-Plan No. 1), which is reported by the ICSU Council Assembly, identified four main reasons for initiating the programme:

- (i) A growing realization that the local and non-local components of the biosphere are increasingly inter-related.
- (ii) The fact that human impacts on the Earth now approximate the scale of the natural interactive processes that control the global life support systems. Many research on climate change resulting from rising levels of greenhouse trace gases to the atmosphere, and depletion, acidification, and desertification.
- (iii) An appreciation of the limits to sustainability of the Earth to produce adequate food supplies, habitat and energy, and to maintain the quality of air, water and soils, and the integrity of the chemical cycles controlled in life.
- (iv) Contemporary advances in technology and in science that make it possible to study the Earth as an interactive system. These include new

study of the effects of the documented global increases in greenhouse gases.

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EMISSIONS SCENARIOS

Exploring pathways



REGIONAL TEMPERATURE RECONSTRUCTIONS

Landmark 2000-year analysis published



IGBP AND EARTH-SYSTEM SCIENCE



TIMBER!

Fall of Rome etched in rings?



Change

International Geosphere-Biosphere Programme Issue 82 ■ May 2014

THE CARBON ISSUE



METHANE UP NORTH

Vigilance, not panic



Dynamic Deltas

