

4th IGBP Congress, Cape Town, May 4-10 2008

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- A1 [*The Australian Country Report on Global Change Research.*](#)
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Attendance and contributions

Roger Gifford represented the Australian National Committee for Earth System Science at the 4th IGBP Congress. On Days 1 and 2, there was a special meeting for representatives of the National Committees for IGBP. Of the 76 National Committees for IGBP, 52 had formal representation at the Congress and 28 had provided brief country reports of their global change research to the Congress. The Australian report is attached (Attachment 1). Selected country activities in global change research were also displayed in the form of posters. Posters were viewed by Congress delegates and by the general public including local students. The Australian poster is attached (Attachment 2).

Other Australians attending the overall Congress were Mark Stafford Smith (CSIRO & IGBP-SC Vice-chair), Eric Wolanski (James Cook Univ & LOICZ SSC member), Andy Pitman (UNSW & iLEAPS SSC member), Louise Newman (formerly Univ Tasmania, now International Project Office PAGES), Peter Kershaw (Monash & PAGES SSC member), David Griffith (Univ of Wollongong & IGAC SSC member), John Finnigan (CSIRO & AIMEs/iLEAPS SSC member), and David Bowman (Univ of Tasmania).

Australian participation in IGBP activities

It was widely recognized by National Committee delegates how difficult it is for National Committees to find out completely who in their nations are making and have made contributions to IGBP research and organization. Sofia Rogers of the IGBP Secretariat pointed the way as to how to do a country search of the IGBP website for contacts. Such a search for Australia has revealed 24 names as Australian IGBP contacts listed in their publicly available database, several with out-of-date information (see Attachment 3). The

nature of individual's role is not always given and the list is clearly incomplete. I undertook to send Sofia Rogers an updated list of the Australian National Committee members.

The National Committee meeting's deliberations

Status and future of IGBP

Carlos Nobre, Chair of the IGBP Steering Committee, addressed the National Committee representatives. He noted that Phase 2 of IGBP (covering 2004-2012) is emphasizing more integration, global change rather than just climate change, while being based in biogeochemistry is emphasizing society more, is more regional in approach and emphasizes strategic partnerships as through the ESSP. Currently with Phase 2 being under mid-term review, they are thinking in terms of whether "Phase 2.5" should place more emphasis on applications i.e. going beyond just better understanding, into influencing policy and strengthening applied Earth systems Science. For this there is a need for more involvement of social science and engineers in leadership to enhance the applied scope and relevance. If this trend is followed then the issue arises as to whether IGBP should evolve into an expanded version of the ESSP, which itself currently needs clarification as to its role. Overall, with regard to IGBP 2.5, Nobre indicated that the challenge is to create a new vision and strategy for applied earth systems science, to figure how to couple IGBP work with actions for environmental sustainability and for avoiding dangerous interference with the earth system.

Role and nature of IGBP National Committees

Weaknesses of the NC system, noted by Nobre, are that their role should be clearer, links to IGBP should be stronger and communications between NCs and the IGBP secretariat should be improved in both directions. The IGBP secretariat cannot follow what the NCs are doing. In discussion, National Committee delegates indicated that their national IGBP committees were drifting with no clear recognition as to their role. The existence of National Committees to IGBP is required under the IGBP Constitution as "Adhering Bodies" to IGBP. Other than indicating that National Committees will pay annual subscriptions to IGBP and providing an opportunity for them to come together every four years as an Advisory Body to provide advice to the IGBP Science Committee, the Constitution is silent as to the role of National Committees.

In his address, Nobre indicated that an important role for NCs should be to advise and support IGBP directions. His vision is to reinforce the links between NCs and IGBP/ESSP. He believes that some NCs are moving ahead of IGBP/ESSP in their thinking about integration of global change/earth systems science.

Nobre indicated that NCs should:

- Comprise active scientists
- Organize disciplinary meetings & symposia
- Enhance the national relevance of global change research
- Create regional networks
- Reduce mistrust of the global change message and enhance mitigation, adaptation and sustainability

- Encourage national participation in environmental assessment.

Much of the discussion of the two days related to defining and developing the role of National Committees to IGBP. Some countries have national committees whose role is specifically and solely as National Committees to the IGBP. For example Taiwan has separate national committees for IGBP, for IHDP and for DIVERSITAS. Others, (eg Australia and South Africa) have National Committees, representing their national science interest in global change or earth system science research within their countries, and these committees also serve as the National Committees for IGBP and other bodies like WCRP, DIVERSITAS and IHDP.

IGBP Finances

Kevin Noone, Executive Director of IGBP, explained the IGBP financial situation. National Committee subscriptions amounting to about US\$1.5M pa have not been keeping up with inflation. Strategies to address the declining budget involve reducing expenditure (eg the IGBP Global Change Newsletter is shifting over to an electronic version only), to change subscriptions from US\$ to Euros to cope with the declining value of the US\$, to hold meetings that involve non-science people that include potential funding sources, and to increase subscriptions. To foster the acceptance of increased subscriptions the strategy is to increase the visibility of the added value that comes from the IGBP activities. Ideas to put effect to this include, indicating in the letter of invoice a national report on how IGBP has contributed. They also plan to develop an added value library of slides for use by national committees and others. The idea of IGBP secretariat site visits assisted by National Committees and national members of the SC and SSCs, to present added value seminars.

The conclusions of the NC meetings

The *modus operandi* of the NCs' discussions was to alternate between structured discussions in regional subgroups and plenary reporting/synthesis sessions. Australia was grouped in the Asia-Pacific regional group. That group selected Muhammed Amir (Pakistan) as its Chair and Roger Gifford (Australia) as Rapporteur. The plenaries were guided by Mary Scholes (local organizing committee South Africa) and Mark Stafford Smith (Australia, & Vice Chairman of the IGBP SC).

During the rest of the week the outcome of the final NC plenary was summarised into a Powerpoint presentation by Roger Gifford (Australia), Wolfram Mauser (Germany), Tibisay Perez (Venezuela), Patricio Sande (Mozambique), Thomas Sheridan (Eire), and Mary Scholes (South Africa). Roger Gifford presented these findings as a talk to the wrap-up plenary of the whole Congress. The Powerpoint presentation is attached (Attachment 4).

Some key points from the summary of NC deliberations, reviewing the scope and role of NCs were:

- It was recognized that global and regional assessments rely on both international core projects and national science programs working synergistically. The roles of scientific steering committees of core projects and national committees should be

- equally important to reflect that. The SSCs currently receive greater focus. NCs all too often are neither consulted nor put themselves forward.
- It is now timely for the organizational framework for IGBP & ESSP to reflect the important and necessary trend towards more integrative, trans-disciplinary approaches emphasizing applications including social and policy aspects. For this, NCs need to play a stronger role. They could act as an organizational structure within their countries and regions.
 - NCs could host all five programs (IGBP, WCRP, IHDP, DIVERSITAS and ESSP) within a country and also combine with other NCs to form regional groups to achieve scientific objectives. During the meeting the Europeans (including Russia) resolved to form such a network to have its first meeting in Lisbon. The countries represented in the Asia-Pacific regional discussion-group, which included China, India, Taiwan, Pakistan, Bangladesh, Sri Lanka, Thailand, Philippines, Mongolia, Korea and Australia, did not feel that a consortium of NCs from that “region” should be recommended at present. That would tend to duplicate the well-resourced Asia-Pacific Network for Global Change Research (APN). Rather, given that ICSU is the umbrella agency for the five programs, the Asia-Pacific group asked whether ICSU should be playing a more active direct role in coordinating integrated regional and sub-regional activities.
 - To develop capacity for global change research and adaptation, IGBP and START should prepare training modules for nations to use and adapt and NCs should recommend areas of training need. For example, an undergraduate course in global change issues to give future professionals in many areas (management, policy, teaching, law, economics, engineering etc) insight into the seriousness of global change issues, would be something that IGBP and NCs could foster.
 - By-directional communication between IGBP and NCs needs to improve and an official procedure is needed to help this. An improved and up-to-date database of participants is required. National members of SSCs of IGBP projects should report to their NCs annually to facilitate NCs annual reporting to the IGBP secretariat.
 - Various regional integrated research project ideas were discussed by the regional groups of NCs. These tended to emphasize sea-level, food, and energy futures. Ideas for regional integrated projects discussed in the Asia-Pacific group included projects for downscaling ES model outputs to a small enough scale to be useful for impacts and adaptation work, projects on food and water security, and research needed to anticipate and plan for the environmental consequences of alternative energy sources in order to provide for a sustainable path to national development.

The Cape Town Declaration

Another activity of the Congress was the development and approval by participants of *The Cape Town Declaration on Science for Environmental Sustainability*. This is attached (Attachment 5). It is an affirmation and extension of the Amsterdam Declaration (2001), which underpinned the development of the ESSP. It emphasizes the urgency and importance for humanity of scientific understanding of the coupled human-environmental Earth system.