

Strategic Directions for the Geographical Sciences

News flash: the National Research Council (NRC) report, *Understanding the Changing Planet: Strategic Directions for the Geographical Sciences*, has just been released to the public and may now be viewed online (www.nap.edu/catalog.php?record_id=12860). You can download a summary and a color, four-page brief report, but I also recommend reading the full report. Alexander Murphy, who chaired the study, will lead a panel discussion of it at the AAG meeting (session 3123, Friday, April 16, 2010, 8:00 a.m., Coolidge Room, Marriott).

Understanding the Changing Planet is a historic, agenda-setting document for geography. Over two years ago, an ad-hoc committee representing the breadth of geography (committee members are listed in the document) was challenged to "formulate a short list of high priority research questions in the geographical sciences that are relevant to societal needs." The committee was also asked to write questions "in a clear, compelling way... supported by text and figures that summarize research progress to date and outline future challenges." *Understanding the Changing Planet* is the product of that committee's work.

This report is intended for geographers, and also for policy makers, journalists, scholars, and citizens beyond geography. I would add deans, provosts, parents, students, and employers to the list. A hard-copy version will soon be available for purchase from the National Academies. All NRC studies have sponsors. This one was sponsored by the National Science Foundation, U.S. Geological Survey, National Geographic Society, and the AAG.

You should read *Understanding the Changing Planet*. You might first take a few minutes to list 10 high priority questions relevant to societal needs that geographers should address in the next decade. As a committee of one, you'll miss the opportunities and challenges of reaching consensus in a diverse group; nonetheless, developing your own list

may help you appreciate the challenges of this task, and, if your questions differ from those of the committee, you will have created "food for thought" and possibly a strategic plan for your own future. Perhaps you will confront, as the committee did, the need to begin by articulating what geographers do. A benefit of defining our priorities is that we better define ourselves in the process.

The NRC committee formulated 11 strategic questions:

- 1) How are we changing the physical environment of Earth's surface?
- 2) How can we best preserve biological diversity and protect endangered ecosystems?
- 3) How are climate and other environmental changes affecting the vulnerabilities of coupled human–environment systems?
- 4) How and where will 10 billion people live?
- 5) How will we sustainably feed everyone in the coming decade and beyond?
- 6) How does where we live affect our health?
- 7) How is the movement of people, goods, and ideas changing the world?
- 8) How is economic globalization affecting inequality?
- 9) How are geopolitical shifts influencing peace and stability?
- 10) How might we better observe, analyze, and visualize a changing world?
- 11) What are the societal implications of citizen mapping and mapping citizens?

Following a provocative introduction, separate chapters present each of the 11 strategic questions, introducing the significance of the question, discussing the role of the geographical sciences, and providing illustrated examples. Emphasizing the

need for collaborative research to tackle big problems, the report weaves together the strengths of human, physical, and technical geography and encourages us to face the need for geographic information, training, and

perspectives beyond the traditional boundaries of geography. Part 3, "Moving Forward," offers concrete suggestions for improving research infrastructure, training, and outreach.

NRC reports carry considerable authority. They are prepared by committees of carefully selected experts, held to high ethical standards, and subjected to an extensive review process. As you may

recall, this committee invited us to contribute comments via a web-based questionnaire. The committee held an open panel session at the 2008 (Boston) AAG Annual Meeting and open meetings in Washington, D.C. and Irvine, California.

As this task was just being initiated, then-AAG President Tom Baerwald's column in this newsletter (Vol. 43, No. 4, the one that began, "*When you're up to your derriere in alligators...*") reminded us of the importance of strategic planning and noted that a decade had passed since the last such NRC study had produced *Rediscovering Geography: New Relevance for Science and Society* (1997). More than 17,000 copies of that volume were purchased.

Although a strategic assessment framed for "geographical sciences" is bound to emphasize some aspects of geography more than others, the cross-cutting nature of the questions is remarkably inclusive. *Understanding the Changing Planet* conveys an exciting sense of opportunity for geographers and supports the centrality of geography in the need to better understand our changing planet. ■

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Some AAG Field Trips still have open seats. Visit the AAG conference onsite registration desk.