

AAG Newsletter
of the
Association of American
Geographers

Douglas Richardson, Publisher
and Managing Editor

Jim Ketchum, Editor

AAG Voice 202-234-1450

AAG Fax 202-234-2744

newsletter@aag.org

www.aag.org

USPS 987-380 ISSN 0275-3995

The AAG Newsletter ISSN 0275-3995 is published monthly with July/August combined, by the Association of American Geographers, 1710 16th Street NW, Washington, DC 20009-3198. The cost of an annual subscription is \$25.00. The subscription price is included in the annual dues of the Association. Not available to non-members. Periodicals postage paid in Washington, DC. All news items and letters, including job listings, should be sent to the Editor at the address below or to newsletter@aag.org.

All Newsletter materials must arrive at the Association office by the 1st of the month preceding the month of the publication. This includes job listings. Material will be published on a space available basis and at the discretion of the editorial staff.

When your address changes, please notify the Association office immediately. Six weeks notice is necessary to ensure uninterrupted delivery of AAG publications. To assist the AAG office in your address change, include the address label with your change of address.

Postmaster: Send address changes to AAG Newsletter, 1710 16th Street NW, Washington, DC 20009-3198, or address@aag.org.

GIS&T Innovation in Latin America

The AAG has been involved over the past four years in discussions with colleagues at the Inter-American Development Bank (IDB), the Knowledge Partnership Korea Fund, and the National Secretariat of Science, Technology and Innovation in Panama (SENACYT), on the feasibility and potential benefits of creating a network of GIS&T Innovation Centers in Latin America for economic development, environmental protection, and other needs. These organizations have provided support to the AAG to help explore this idea and to develop a feasibility study and proposed plan for addressing this concept.

Recognizing the potential roles of science, technology and innovation for improving the social and economic development of the Latin American and Caribbean regions, the AAG recently gathered leading representatives of universities, government agencies, research centers, international geography organizations, mapping agencies, and others from Latin America, the U.S. and Korea for a consultation and planning meeting in Panama, focused on how best to enhance GIS&T research and educational capacity in Latin America.

The attendees represented the leadership of many international geography-related organizations, including Santiago Borrero of the Panamerican Institute of Geography and History (PAIGH), Ronald Abler of the International Geographical Union, Graciela Metternicht of the United Nations Environment Programme (UNEP), Rubén Berrocal of SENACYT, Michael Goodchild of the U.S. National Center for Geographic Information and Analysis (NCGIA), and dozens of other senior GIScience and government officials from local stake-holder institutions such as the Panamanian National Geographic Institute, the Technological University of Panama, the Authority for Land Management of Panama, the University of Panama, the Panama Canal Authority, and many others.

Discussion and Endorsement of Priority Needs

In the course of the meeting, special presentations addressed the current status of GIScience and technology activities and expertise at national, regional, and international organizations throughout Latin America. Attendees shared insights into several GIS&T research and educational programs that might serve as useful examples or models for the region. Participants identified gaps and needs in both the education and research areas for GIScience in Panama and Latin America, and also discussed employ-



Richardson

ment opportunities for young researchers and scientists in the region.

Dr. Rubén Berrocal, the Director of SENACYT, also shared his strong support of national and Latin American wide efforts for the development of a network of interactive and mutually supportive GIS&T research and educational centers to support social and economic development needs ranging from public health and agriculture to transportation and tourism. Dr. Berrocal, a medical doctor and researcher, also discussed Panama's just released national strategic plan for science, technology and innovation, which provides a national science policy framework and context for the development of GIS&T in Panama.

The assessment and analysis by the meeting participants emphasized the following special needs, among others, for enhancing GIS&T capacity:

- The need to achieve continuity in university programs regarding capacity and knowledge in GIS&T, and to enhance individual as well as institutional capacity in public and academic sectors. This implies finding ways to sustain developed capacity and to ensure that it is not lost when administrations change or new personnel replace existing skilled staff.
- The need to engage policymakers in understanding the key roles of geography and GIScience in addressing environ-

Continued on page 4

mental protection, urban development, sustainable tourism, public health, social justice, transportation and logistics, and other national and regional development goals.

- The need to encourage sharing of geographic data and information as well as geographic expertise and knowledge more broadly across disciplines and sectors. This implies public access to geospatial data and mechanisms to engage local populations in the design and development of national mapping programs.
- The need to encourage central repositories of fundamental geospatial datasets at national levels including maintenance and updates. Linkages to regional level geospatial portals will facilitate sharing across national borders, to foster trade and cooperation on environmental protection and economic development programs throughout Latin America.
- The need to coordinate data collection procedures, comply with metadata standards, ensure interoperability, and follow online data dissemination protocols to permit multiple applications by a multitude of organizations, researchers, educators, and individual citizens. Data standards coordination is already underway and many countries of the region are participating, but further progress is needed.
- The need to create curricula for geography, GIScience and GIS in the education system, and to emphasize fundamental principles of GIScience and technology, rather than only applications. The

UCGIS *GIS&T Body of Knowledge* (AAG, 2006) offers one starting point for these efforts.

Establishing a Network of Centers

Participants discussed several ideas, potential organizational models, and locations for centers that might address regional needs, as



Dr. Rubén Berrocal (left), the Director of SENACYT, with Doug Richardson.

defined by the region itself. There was consensus about the importance of engaging all sectors, including public, private, academic, and non-governmental in the creation and support of the center. Adapting the "multi-university center" concept employed by the US National Center for Geographic Information and Analysis (NCGIA) emerged as a potentially relevant model for successfully structuring the involvement of a diverse suite of universities and public research institutions in Panama and throughout Latin America.

After extensive discussion, the group recommended unanimously that the AAG work together with SENACYT to develop a plan for a \$1 million prototype center to

enhance Latin American GIS&T capacity for innovation and economic development, with Panama as an initial host for the prototype center. The Panama GIS&T Center would then expand linkages to other universities in the region, as well as to research centers, government agencies, and other institutions such as national mapping agencies, the Panama Canal Administration, and existing private sector GIS&T institutions. There was consensus that initial funding of \$1 million be developed and administered by SENACYT for the establishment of the center in Panama, and also to fund research grants on a competitive basis to address strategic national and regional priorities; approximately 10% would be reserved for administrative and standards development activities.

This initial funding would then be supplemented by longer term sustainable support in the form of additional grants, matching funds, and in-kind resources (human and infrastructure), as well as private sector support through grants of funds, GIS&T equipment, or GIS software.

The AAG intends to complete the feasibility phase of this project and deliver a proposed plan to SENACYT for moving forward by the end of March 2011. The plan would also address mechanisms for achieving long term financial sustainability of the initial center and for its interactions with other universities and centers throughout the Americas. ■

Doug Richardson, Patricia Solís, and
Candida Mannozi
drichardson@aag.org