

**INTER-AMERICAN INSTITUTE FOR
GLOBAL CHANGE RESEARCH**



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Report of the IAI Directorate

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Science Program

The re-opened **CRN I** program uses remaining funds for synthesis and dissemination activities in addition to the previously reported activities. The program will close November 30, 2007. The publication of several papers and special issues resulting from CRN I activities is in its final stage, as is the translation of the SCOPE/IAI book into Spanish. One special publication is the landuse book (below).

The six projects approved for funding under the **Small Grants Program for the Human Dimensions** (SGP-HD) by the COP in Manaus have been informed and grant agreements have been sent. Four agreements have been signed, funds have been transferred and activities have started. Two agreements are under review by the grantee institutions. In this context, there have also been considerable delays in grantee institutions signing the CRN II agreements and sub-agreements. The very elaborate IAI agreement (revised to avoid problems encountered during CRN I) has caused serious delays, particularly in US grantee institutions. As the IAI agreement has been elaborated jointly with NSF and has its approval, an endorsement of the agreement by NSF might be possible and helpful to facilitate the process in the future.

The next **CRN II** Principal Investigator (PI) meeting will be held in Panama City, Panama, from 21-23 February 2008. Contact has been made with ANAM and CATHALAC and both provided support with local arrangements. The meeting will also be attended by the SGP-HD PIs. A main item to be addressed during the meeting will be the collaboration between CRN II and SGP-HD. A number of SAC members will also attend. The meeting will be back to back with the IAI Training Institute on data and information management and an Environment Canada/Smithsonian meeting on climate change impacts on biodiversity. Several PIs will participate in both events.

The issue of **data and information** will be addressed both at the PI meeting and the following training workshop. Both meetings have the mandate to advance the IAI agenda on "the full and open exchange of scientific information relevant to global change" and "promote ... informed action at all levels".

Led by MO and HT, the IAI submitted the proposal "An assessment of research and institutional needs to cope with the effects of Climate Change on Andean Biodiversity" to the **MacArthur Foundation** on June 1st, 2007. The IAI proposal for USD 450,000 was approved by MacArthur's Board of Directors on September 19, 2007 and is currently under legal review by the Foundation with an agreement letter expected within the next couple of months.

Led by GB and HT, the IAI submitted a proposal to **IDRC** on landuse, hydrology and climate in the La Plata basin. The proposal complements work in the CRNII by Jobbagy and the planned CRNII addition on climate to be led by Berbery. The proposal, for CAD 440,000, is being evaluated by IDRC with first communications indicating that it will be funded.

Cooperations

Jointly with representatives of the IGBP Brazil Regional Office and the LBA (Large Scale Biosphere-Atmosphere Program in the Amazon), the IAI is developing a session for the **4th IGPB Congress: Sustainable Livelihoods in a Changing Earth System**, 5-9 May 2008, Cape Town, South Africa. The session will address the roles of regional and global organizations, public policy and regional concerns with the goal to explore a mechanism to strengthen regional networks.

For the **IGFA** meeting (Oct. 27-30), HT had asked that the relationships and funding mechanisms of the international global change programs and regional institutions be put on the agenda. The ensuing discussions helped clarify funding mechanisms for events organized by global programs and avoid double funding. This clarification is important since it will avoid misunderstandings about the funding intentions of the IAI and its sponsoring agencies. At the same time, it reassured global programs of continued IAI cooperation within the defined mandate of the IAI.

Planning for the second **IAI-NCAR colloquium** has been started with 2 phone conferences. Following on the first colloquium held in Boulder, Colorado, USA in September 2006 on 'Policy Planning and Decision Making Involving Climate Change and Variability', the second colloquium is tentatively planned for the second half of 2008 in Mendoza, Argentina on 'Seasonality and water resources in the western hemisphere: regional lessons shared'. Detailed discussions on timing, agenda setting and identification of speakers will continue after input has been received from the EC and SAC in Washington.

IAI, IGBP (Brazil office) and ICSU (regional office Rio) have made a joint submission to the OTCA (**Amazon Treaty Organization**) meeting in Puerto Ayacucho (October) asking for recognition of the need for scientific cooperation amongst the Amazon countries that goes beyond the past largely national efforts. MO will follow up on this during a visit to Brasilia in November.

Two meetings took place with representatives from the **UK Department for International Development** (DFID) on July 30 and Nov. 7. The contacts established may provide opportunities for cooperation as DFID expands its climate adaptation program to Latin America. DFID is cooperating with Canada's IDRC. Both the proposal to IDRC on landuse change, hydrology and climate in the La Plata basin and the potential cooperation on priority identification in IAI member countries have developed in this context.

At the IGFA meeting (Oct. 29-31), the Norwegian representative expressed interest in cooperating with the IAI towards greater engagement of Norwegian researchers in Latin America. Information on associate membership, CRN and SGP-HD was sent to **Norway** and is being examined for possible links.

HT gave a presentation on climate change risks and opportunities at the final meeting of a World-Bank funded project led by **PROCISUR** for the La Plata basin. The meeting in Montevideo (Aug. 28-29) was also designed to explore future project opportunities.

In September 2007, the IAI Training Officer was invited by **IDRC**, Canada, to participate in a "Climate Change and Health Meeting" to discuss strategic directions for an ecosystem approach to climate change and human health research, and to exchange views on the challenges, gaps and opportunities for climate change and health research in Latin America and the Caribbean. The meeting was organized by IDRC in collaboration with the National Institute of Public Health (INSP) of Mexico. A discussion about future collaboration between IAI, IDRC and INSP of Mexico emerged. In October, 2007, INSP submitted a proposal to IAI to organize a meeting on "Variability and Climate Change Research in The Americas" to be held in Cuernavaca, Mexico, January 21-22, 2008. This initiative will bring together the positive results and the success of the IAI project "Diagnostics and prediction of climate variability and human health impacts in the tropical Americas" under the IAI Collaborative Research Program (CRN I) program from 1999-2006, and link the synthesis of these activities to future health initiatives in the region. Under the leadership of Mexico, the workshop will synthesize CRN1-048 "Diagnostics and prediction of climate variability and human health impacts in the tropical Americas"; and generate opportunities for future work based

on CRN I results: a) develop new science plans linked to national priorities (Brazil, Bolivia, Cuba, Colombia, Ecuador, Mexico, Jamaica, Venezuela) in science and capacity building on climate change and adaptation, establish links to the IPCC findings; and consolidate the networks generated by CRN1-073 "Climate Variability and its Impacts in the Mexican, Central America, and Caribbean Region" and identify potential links to new programs especially the IDRC's ECOHEALTH program.

Country contacts

In **Guatemala** (July 24-26) HT visited several institutions to resolve the issue of non-payment of core budget contributions. Guatemala has never contributed, apparently because the senate's decision to join the IAI was not accompanied by a designation of a responsible institution. The visits involved: Eddy Hardie Sanchez Bennet (director INSIVUMEH - climate, hydrology) is ready to promote reactivation of IAI-Guatemala links and contribute science input but has no budget for contributions. Mario Bautista who participated in meeting, has participated in an IAI workshop in the past and is interested in science linkages. INSIVUMEH has a mandate that fits IAI well. Roy Alex Bennet (deputy director CONAP – protected areas) will call a meeting of all interested to resolve the issue and share funding for a first contribution. Hector Centeno (Science commissioner, presidents office/Senacyt) has participated in the discussions.

MO visited several Peruvian institutions to strengthen the relationship between **Peru** and the IAI, taking advantage of a workshop in Lima. Authorities and institutions visited were:

- Ministerio de Relaciones Exteriores/ Dirección General De Medio Ambiente

Pablo Cisneros Andrade, Counselor

David Hurtado Fudinaga, First Secretary

Lillian Carrillo Meza, Advisor

- Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica (CONCYTEC)

Christian E. Arbaiza, Chief of the Office of International Cooperation

Juan Tarazona Barbosa, Director of General Programs

- Consejo Nacional Del Ambiente (CONAM)/ Unidad de Cambio Climático/ Presidencia Del Consejo de Ministro

Ricardo E. Giesecke

- Servicio Nacional de Meteorología e Hidrología (SENAMHI)

Wilar Gamarra Molina, President

Julio Villafuerte Osambela, General Director of Meteorology

Juan Julio Ordoñez Galvez, General Director of Hidrology and Water Resources

In order to foster Peru's participation in IAI science activities, MO has facilitated the participation of Peruvian scientist, Eric Concepcion Gamarra, General Director of Research and Environmental Studies, Servicio Nacional de Meteorología e Hidrología (SENAMHI) in a Collaborative Research Network project, CRN2017, PI Laura Gallardo Klenner on urban contaminants.

In **Mexico** City (September 9-11, 2007) MO visited:

- Instituto Nacional de Ecología (INE), Adrián Fernández, President, Julia Martinez, Director

- Centro de Ciencias de la Atmósfera/Universidad Autónoma de México (UNAM)

Carlos Gay, Director, Telma Castro, Researcher and SAC member, Victor Magaña, Researcher and previous IAI CRN I- PI

In Montevideo (Aug. 29) HT visited the Minister of the Environment together with representatives from the ministry of education and the agricultural research service. Following that meeting the ministries were to communicate to resolve how and by whom the IAI core contributions should be paid. **Uruguay** has only made one initial payment upon joining the IAI and has never paid again.

The potential involvement in a future World Bank project appeared to be an incentive but the IAI has received no feedback as yet.

Policy

Following initial contacts with the Canadian office and Costa Rican headquarters of the Inter-American Institute for Cooperation in Agriculture (IICA), HT was invited to present a talk on global change and agriculture at the **Americas summit** meeting of **agricultural ministers** in Guatemala (July, 07). The talk presented issues of mitigation and adaptation. It showed that mitigation was principally an opportunity for agriculture to benefit from production diversification and market opportunities for biofuels but that the process must be guided by adequate governance. Adaptation will likely be a significant challenge and in many areas will have to be accompanied by a transition from agricultural management to landscape management that also provides for sustained ecosystem services under changing climate. There was considerable concern among **Caribbean** ministers about the vulnerability of the islands' agricultures to climate change. This concern was amplified by the small-scale economies that limit adaptation capacities.

Training

Research Internship: Under the program between IAI and Brazil's National Institute for Space Research (INPE)/Center for Weather Forecast and Climate Studies (**CPTEC**)

two interns were selected in 2007: Jannet Sanabria, a scientist from the Servicio Nacional de Meteorología e Hidrología (SENAMHI), Peru, is the first intern to start her 6 months internship program at CPTEC on "The impacts of climate change scenarios on agriculture in Peru" on September 15, 2007. Her advisor at CPTEC is José Marengo.

The second intern, Ana Graciela Ulke, from the University of Buenos Aires/Department of Atmospheric and Oceans Sciences, Argentina, will start her program in January 2008.

MO organized and participated in a synthesis meeting of the Training Institute Seed Grant (TISG)-P4 project "Evaluación de la Vulnerabilidad Agrícola de la Papa por la Variabilidad y el Cambio Climático en Los Andes" led by Principal Investigator Jacinto Arroyo, from the Instituto Geofísico del Perú (IGP). The meeting was held from July 31-August 3, 2007 in Lima, Peru

The third and final summer school for Latin American students was held in Goettingen (Sept. 23 - Oct. 7) on "Strategies to react to Global Change Impacts on Land Use in Latin America". Five participants were sponsored by the IAI, 18 by the German DAAD. HT provided lectures during the second week of the event. Results from the student's discussions and workshops were highlighted in the 2007/2 IAI Newsletter. Motivated by these articles, this year's students prepared documents on sustainability, conservation, and bioenergy and carbon markets. Following the summer school, students created a web community to stay in touch.

Planned training Institutes:

A proposal to support four training institutes at US\$ 300,000 for the period 2007-2009 was submitted to NSF on July 15, 2007. Partnerships and collaboration have been established with several institutions in the region and IAI is engaged in leveraging additional resources. This proposal is under review by NSF. Institutes planned are:

Information Management: free and open access to, and use of data and information (with CATHALAC, February 24- March 1, 2008, Panama City, Panama)

The information needs of the scientific and policy communities (across disciplines, institutions and countries) are important to all science funders. An aim of the institute is to improve information management to generate knowledge and communication and develop a culture of information sharing in the IAI member countries.

Risk - Adapting to Climate Change in Latin America: Trends and Challenges
(with the World Conservation Union- IUCN, May 25-29, 2008 , San Pedro Sula, Honduras). This activity will be held as a side event to the Central American Presidential Summit (May 30, 2008, San Pedro Sula, Honduras).

Objectives are to analyze the interactions between current and future climate risks, and natural and human systems; examine assessment tools and policy frameworks; and train field practitioners and policy analysts to apply concepts of risk management and adaptation to their work.

Managing Semi-arid River Basins: Multiple Use of Water Resources of the São Francisco River Basin (with the Federal University of Pernambuco and Canoa de Tolda (NGO), October 8-22, 2008, Aracajú and on the São Francisco river, Brazil)

How does global change affect river resources in semi-arid regions: energy, agriculture, fisheries, tourism, human wellbeing and ecosystem function? The workshop will have participation of NGOs, local communities and industries.

Cities' Responses to Climate Change (with the Economic Commission for Latin America and the Caribbean- ECLAC, March/April, 2009, Santiago, Chile)

How and why cities respond or fail to respond to climate change with mitigation or adaptation. A forum to link scientific (urban studies, sustainability, and climate change) with practical knowledge, researchers with decision-makers, practitioners to use research results in policies shaping the construction and functioning of urban areas.

Publications

17 chapters provided for the CRNI synthesis in Costa Rica were reviewed J.W.B. Stewart (in addition to the authors reviewing each others contributions) and edited by HT, and the book is now in the technical editing stage. The book's topic is "the application of ecological knowledge to landuse decisions".

The "IAI Meeting and Science & Policy Forum on Disaster Management and Risk Reduction associated with Climate Change and Variability" report was published in July. This publication was produced in cooperation with the UN International Strategy for Disaster Reduction (ISDR), Centro del Agua del Trópico Húmedo para América Latina y el Caribe (CATHALAC), Centro Regional de Información sobre Desastres para América Latina y el Caribe (CRID), Autoridad Nacional del Medio Ambiente de Panamá (ANAM) and the Secretaría General de la Facultad Latinoamericana de Ciencias Sociales (FLACSO). The training institute was held from November 19-24, 2006 in Panama City, Panama. The report shares, with the broader public, the major conclusions, recommendations, and feedback to encourage dialogue, connectivity and interaction among the scientific, political and civil society in risk management and disaster reduction associate with climate change and climate variability.

Further information at
<http://www.crid.or.crencuentroyforogestiondelriesgoasociadoalclima/index.shtml>