

IAI Directorate Report to the twenty first Conference of the Parties, 2013 for the period of July 2012 - April 2013

1. Science, Research and Research Communication

The **Second Collaborative Research Network (CRN2) and the Small Grants for Human Dimensions (SGP-HD)** programs are now being closed. An extension of CRN2 into 2013 permitted interactions of CRN2 researchers with the new networks of CRN3. Together, the CRN2 and SGP-HD grants involved 122 institutions and 223 investigators in 18 IAI member countries. The total funding leveraged by these programs with an original award from the US National Science Foundation of US\$ 11.3 million was US\$ 37 million. Close to 2,000 students participated in training events and workshops promoted by projects and 786 received scholarships from these grants. CRN2 and SGP-HD projects have produced 489 peer-reviewed journal articles and 127 books or book chapters. Three projects reported their research outcomes at UNFCCC CoPs, and one at a CBD CoP.

Under the **Small Grants for Collaborative Research in the Americas (SGP-CRA), 2012-2014**, 9 projects were funded. These are based on previous collaborative research networks and provide an opportunity to continue their participation in IAI networking with the new round of research networks (CRN3). SGP-CRA involves 13 of the IAI's 19 member countries; with 9 PIs and 67 Co-PIs in 52 institutions. During the first year, 107 students were involved and 31 students received scholarships from projects (an investment of US\$ 205,000). 79 students participated in training activities and workshops funded by projects. Due to "running start" facilitated by previous projects, the total additional funding leveraged in the first year was of approximately US\$ 8.3 million.

A major task for the Directorate and SAC over the past year has been to select and initiate the **third round of the Collaborative Research Network Program (CRN3), 2012-2018**. This is the new IAI flag-ship program to generate scientific knowledge on global change and its societal implications; to make that knowledge accessible to decision makers; to develop partnerships between research institutions and other organizations for joint research application and outreach activities; and to link the research networks to the IAI capacity-building programs that bring together scientists, managers, and policy makers.

The call for CRN3 project proposals encouraged US participants to strengthen the CRN's international networks through links with NSF's Partnerships for International Research and Education (PIRE). São Paulo State's funding agency FAPESP has made co-funding opportunities available to successful CRN3 proposals involving researchers from that Brazilian state. A new agreement is expected to be signed with CONICET of Argentina in June 2013 to contribute towards and expand approved CRN3 projects.

CRN3 selection was based on an open call for letters of intent in September 2011. 88 eligible letters of intent were received, and the IAI Scientific Advisory Committee (SAC) selected 32 teams to develop full proposals by March 2012 which were peer reviewed by mail and panel reviews. 8 proposals were selected. Since the integration of

the human sciences was still weak, the IAI issued a follow-up call on Ecosystem Services research in August 2012. Two additional projects were selected from a total of 28 proposals following pre-screening by the SAC and Directorate, peer review and a panel review in November 2012.

List of CRN3 projects. Total budget committed to individual projects is US\$ 8.4 million from funding provided by the US National Science Foundation:

CRN3	Title
3005	Nitrogen Cycling in Latin America: Drivers, Impacts and vulnerabilities Jean Pierre Ometto (PI), Instituto Nacional de Pesquisas Espaciais, INPE <i>Brazil, Argentina, Bolivia, Chile, Mexico, USA, Venezuela</i>
3025	Enhancing knowledge exchange for conservation and management of tropical dry forests in the Americas Arturo Sanchez-Azofeifa (PI), University of Alberta <i>Canada, Brazil, Costa Rica, Mexico</i>
3035	Towards usable climate science – Informing sustainable decisions and provision of climate services to the agriculture and water sectors of southeastern South America Cecilia Hidalgo (PI), Universidad de Buenos Aires <i>Argentina, Brazil, Paraguay, USA</i>
3036	“LUCIA” - Land use, climate and infections in Western Amazonia Alisson Barbieri (PI), UFMG/CEDEPLAR <i>Brazil, Ecuador, Peru, USA</i>
3038	Sensing the America's Freshwater Ecosystem Risk (SAFER) from climate change Gerardo M E Perillo (PI), Instituto Argentino de Oceanografía (CONICET-UNS) <i>Argentina, Canada, Chile, Colombia, Uruguay, USA</i>
3056	Innovative science and influential policy dialogues for water security in the arid Americas Francisco J. Meza (PI), Pontificia Universidad Católica de Chile <i>Chile, Argentina, Brazil, Mexico, USA</i>
3070	Variability of ocean ecosystems around South America (VOCES) Alberto Piola (PI), Servicio de Hidrografía Naval <i>Argentina, Brazil, Chile, Peru, Uruguay, USA</i>
3076	Effects of Anthropogenic Habitat Perturbation on Rodent Population Dynamics and Risk of Rodent-Borne Diseases Daniel Bausch (PI), Tulane University <i>USA, Bolivia, Peru, Paraguay</i>
(3094)*	Assessment of marine ecosystem services at the Latin-American Antares time-series network Milton Kampel, Instituto Nacional de pesquisas Espaciais (INPE), Brazil <i>Brazil, Argentina, Colombia, Chile, Mexico, Peru, USA, Venezuela</i>
(3095)*	Bridging Ecosystem Services and Territorial Planning (BEST-P): A southern South American initiative José M. Paruelo. LART-IFEVA. Facultad de Agronomía and CONICET, Buenos Aires, Argentina <i>Argentina, Chile, Mexico, Uruguay</i>

* Grant agreements have not yet been signed, pending revision of work plans and greater integration of the human sciences.

The 8 projects selected in early 2012 have revised their proposals following SAC and Directorate comments, signed grant agreements and have started their work. These

projects involve 110 investigators from 72 institutions in 14 IAI member countries. For the two additional projects on Ecosystem Services, the Directorate is still working with the teams to improve work plans and networking, based on recommendations by the SAC and reviewers. The two teams working towards implementation are CRN3094 on marine ecosystem services at the Latin-American Antares time-series network, led by Milton Kampel, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil, and also involving Argentina, Colombia, Chile, Mexico, Peru, USA, Venezuela; and CRN3095 on bridging Ecosystem Services and Territorial Planning: A southern South American initiative, led by José M. Paruelo, UBA - CONICET, Buenos Aires, Argentina and also involving Chile, Mexico, Uruguay.

An initial CRN3 PI meeting was held jointly with a meeting of the Scientific Advisory Committee (SAC) from 11 to 13 March 2013 in Buenos Aires, Argentina. The main goals of this meeting were to fill the gaps in the science portfolio, particularly the linkages between the natural and human sciences and to initiate collaboration and knowledge synthesis across the different projects and networks. Several investigators from CRN2 were invited to aid the process.

PIs and the SAC interacted during 3 days, investigators agreed on several cross-linking research collaborations on Nitrogen budgets in South America, from the ecosystem level to regional atmospheric deposition; Tropical Dry Forest research associated with the estimation of ecosystem services using remote sensing approaches. CRNs 3005, 3025, 3035, 3095 will hold joint meetings to share experiences and results and develop joint initiatives including the sharing of project sites. Two projects on human vulnerability to infectious diseases as a result of environmental changes will share approaches to protocol development and implementation at common study sites. Other projects will jointly develop protocols to define Ecosystem Functional Types (EFT) in marine and terrestrial ecosystems (3094, 3095). PIs conducting numerical simulations of the ocean circulation around the Americas will promote the cross-participation of co-PIs in both, planning and scientific workshops, in training and capacity building activities and encourage the exchange of students and young scientists (3070, 3095). This represents a major advance over CRN2, in which "networking the networks" was a largely Directorate-driven activity. Expectations are that after this early engagement, projects will develop their own networking dynamics. A meeting of CRN3 scientists and unfunded proponents will be held on Science Integration on 25 May 2013 in Buenos Aires, Argentina. This will be a brainstorming on the opportunities and obstacles for solution-oriented interdisciplinary research: what has worked and how, what has not, and how can the CRN program contribute towards improving interdisciplinary global change science in a sustainable manner.

The ongoing **MacArthur Foundation-funded project "Climate-related vulnerability and risk assessments and improved decision making processes for conservation and land use planning in two Andean biodiversity hotspots"** investigates near-term climate change trends, land-use patterns, biodiversity patterns and gradients, the vulnerability of species and ecosystems to changes in historical climatic conditions, as well as local perceptions of climate variability and change in two trans-boundary study areas (Nariño/Carchi and Puno/La Paz). In addition, a third study site in Los Nevados Natural Park in the Colombian central Andean region, has been studied by

the climate group, with in-kind contributions from the Escuela de Ingeniería de Antioquia in Colombia and the International Research Institute for Climate and Society (IRI).

Project activities have focused on: 1) The design of a GIS-based Andean climate wizard, based on observed and simulated climate data, for the full extent of the Tropical Andes (regional scale) and the trans-boundary regions under study (local scale). Digital sensor data are currently being combined with weather station records, whose recording periods span over 50 years, and with climatic reconstructions from dendrochronological studies. 2) Compilation of georeferenced databases on the known distribution of species in selected taxonomic groups (ca. 2800 species in total) for the project's study areas. Subsequent GIS-mapping of locality records in relation to the distribution of 25 ecosystems (19% of all tropical Andean ecosystems) permitted the identification of major knowledge gaps, which were targeted by biological rapid assessment surveys at 18 localities. In 2012 some 23 young scientists from the tropical Andes were trained in evaluating species with the NatureServe Climate Change Vulnerability Index (CCVI), and as a 'side product' a new Andean version of the CCVI was developed. The team is now completing data bases and evaluating all species with the CCVI. 3) Consultation with local communities (545 individuals) using a previously tested and adapted survey by Grupo Randi Randi on local perceptions of climate change in the different ecological zones, and on the ways in which climate change is likely affecting these ecosystems. Surveys were complemented with key informant in-depth interviews, together with participatory mapping exercises on vulnerability with focus groups.

The following outreach article has been published in the Mountain Research Initiative Newsletter with the initial results of the project, particularly from the climate study: "Five-tiered integrated climate-related biodiversity vulnerability assessment in the Tropical Andes"

<http://mri.scnatweb.ch/individual-articles-mri-news-no.7-high-resolution/view-category/Page-3>.

A research article entitled 'Shifting atmospheric stability and tropical Andean biodiversity hotspots in trouble' is also ready for submission. The article summarizes the main results of the analyses of the climate group, which are discussed in detail in a full chapter entitled 'Atmospheric instability, feedback mechanisms and climatic stress on high-altitude Andean ecosystems'. All these documents are available upon request.

The comprehensive **assessment on the capacity of the Tropical Andean region to integrate knowledge and conduct research on climate effects on biodiversity** was concluded in 2011. The project funded by the MacArthur Foundation resulted in a science e-book documenting the state-of-the-knowledge on biodiversity and climate change in the region available in English on-line at

http://www.iai.int/files/communications/publications/scientific/Climate_Change_and_Biodiversity_in_the_Tropical_Andes/book.pdf.

In early 2013 the book was released in Spanish in print for wider distribution in the Andean countries. A Spanish electronic version is available at

http://www.iai.int/files/communications/publications/scientific/Climate_Change_and_Biodiversity_in_the_Tropical_Andes_SP/libro_completo.pdf.

Following a lead by the Argentinean government the IAI successfully competed in an European Union funded project: **ENSOCIO-LA: Strategic, Sustainable R&I Cooperation with Latin America** (Climate Action, Resource

Efficiency and Raw Materials). This is a complex multi-national initiative which will be implemented after June 2013, following the EC chair's participation in a European start-up meeting.

The directorate remains engaged in the planning of Future Earth initiatives in the Americas. A Letter of intent on a consortium with ICSU-ROLAC and UNESCO's Montevideo office is in preparation.

To communicate IAI science globally, as in previous years, the IAI continues to participate in Research Dialogue of the **Subsidiary Body for Scientific and Technological Advice to the United Nations Framework Convention on Climate Change**, (SBSTA-38, June 4th, 2013, Bonn, Germany). CRN2 and 3 principal investigator Arturo Sanchez-Azofeifa will present research findings from the IAI Tropi-Dry network to UNFCCC delegates. The CRN results are contained in document FCCC/SBSTA/2013/MISC.5. The IAI contribution was prepared in response to an invitation by SBSTA-37 to provide information on emissions and removals from terrestrial ecosystems of greenhouse gases, with a view to identifying and quantifying the impact of human activities. In its submission, IAI showcases its Tropi-Dry Collaborative Research Network, which has for the past 6 years examined the functioning and management of dry forests across the American continent. This project has showed that Tropical Dry Forests (TDFs) are one of the less understood indicators of environmental change in the Americas. Knowledge of emissions and sinks of greenhouse gases (GHG) in TDFs is limited. Carbon losses by deforestation in these ecosystems are difficult to estimate since annual deforestation rates have been only calculated for few sites and specific periods and there are no systematic continental, national or regional analyses to calculate their annual deforestation. Their study employs cutting-edge science, such as multi-spectral remote sensing, and wireless sensor networks that can monitor changes in climate condition and forest productivity. The team involves researchers and institutions in Brazil, Canada, Costa Rica, Cuba, Mexico, United States of America and Venezuela. The document is available at:

http://unfccc.int/documentation/documents/advanced_search/items/6911.php?preref=600007357

At the eleventh Conference of the Parties (COP-11) to the United Nations Convention on Biological Diversity (CBD), 8-19 October 2012, Hyderabad, India, the IAI partnered with the CBD Secretariat, DIVERSITAS, Conservation International (CI) and the GEO Biodiversity Observation Systems. CRN2 Co-investigator Natalia Perez-Harguindeguy presented results from DiverSus (CRN2015) on how social actors value ecosystems, and which ecosystem components are critical for different stakeholders. IAI collaborative research networks were cited as important and successful examples of integrating across disciplines beyond the barriers of language and conceptual frameworks. More information is available at:

https://www.iai.int/index.php?option=com_content&view=article&id=127&Itemid=157

2. Capacity Building

A Workshop on the use of the **Index of Usefulness of Practices for Adaptation**

(IUPA) was held 23-24 July 2012 in Montevideo, Uruguay. This was a joint-activity with the Climate Change Unit of the Ministry of Housing, Zoning and Environment of Uruguay. The workshop was designed to strengthen local capacity to evaluate adaptation practices to climate change through the application of IUPA. Forty-two professionals from various ministries and agencies in Uruguay participated: Agriculture, Tourism, Environment, Social Development, Health, Finance, Energy, Water, National Emergency System, Meteorological Service and UNDP. The workshop was led by two IAI scientists, Paulina Aldunce from Chile, and Carolina Neri from Mexico, who participated in the development of IUPA through an IAI Training Institute Seed Grant in 2008. After the workshop Uruguay's Climate Change Unit held meetings with the agriculture and biodiversity/coastal zone groups to explore the adaptability and adjustment of IUPA with other methodologies for future use.

The Training Institute on **Adaptive Management of Water Resources under Climate Change in Vulnerable River Basins** was held 8-17 October 2012 at the Water Center for Arid and Semiarid Zones of Latin America and the Caribbean (CAZALAC) in La Serena, Chile. The Training Institute was a collaboration between IAI and CAZALAC/UNESCO-PHI, which provided additional funding of US\$ 20,000. Twenty-four professionals from 10 countries explored water security in arid and semiarid regions under climate change, hydroclimatic variability, population growth, urbanization, rising demands for food, societal vulnerability and ecosystem water needs. In addition, the program sought to advance conceptual and practical training in adaptive water resources management. Several ministries, and environment and water agencies provided co-funding for their participants. The Training Institute included lectures, hands-on exercises, roundtable discussions with scientists, water managers and users, and two field trips to the Elqui and Limari basins to meet local stakeholders. In addition, the course included training on proposal development. A review committee (IAI, AQUASEC, UNESCO representatives) evaluated the resulting seed grant proposals, and identified concept and knowledge flaws in the science-policy integration. Therefore, to strengthen participants' capacity for science-integration and science-policy linkages, a follow-up workshop to be held from 27-31 May 2013 in Mendoza, Argentina. The training was the first joint IAI-AQUASEC capacity building event. Based on this collaboration a second AQUASEC-IAI-CAZALAC training event is being planned for 24 June-3 July 2013 on Adaptive Water-Energy Management in the Arid Americas in La Serena, Chile.

Two **Colloquia on Knowledge Integration at the Science-Policy Interface** were held in November 2012 and April 2013 focusing on risk assessment, mapping, decision making and governance. The first took place in the Dominican Republic and the second in Ecuador. Partner organizations were the National Corporation for Atmospheric Research (NCAR), Ministerio de Medio Ambiente y Recursos Naturales, Universidad Nacional Pedro Henríquez Ureña of the Dominican Republic and Pontificia Universidad Católica and Ministerio del Ambiente of Ecuador.

The Dominican Republic colloquium focused on informing policy and decision-making by science, stakeholder engagement, climate change science and modeling, and integrated socio-ecological approaches to assessments of risk, vulnerability and

adaptation to climate change and weather extremes. Critical issues were the integration of science, the science-policy interface, and the links to development and adaptation in Latin America. In addition to lectures and discussions, participants received ten hours of hands-on instructor-lead GIS training using open source GIS tools (QGIS) and data on global and regional climate change, urban air quality, and societal vulnerability. The GIS training and practical exercises were developed specifically for the colloquium and included free software, data, and the instructional manual. Twenty professionals from 9 countries attended the colloquium.

Ecuador's colloquium explored tools and techniques for understanding governance issues shaping knowledge integration such as models of policy-science links, use of information, institutional capacity, and equity and justice. Through plenary talks and round tables, presenters shared experiences and lessons learned on scientist-practitioner research partnerships and their effectiveness in targeting solutions and enhancing information exchange. A field trip to Papallacta, where Ecuador's Ministry of Environment has implemented an adaptation project, was used to illustrate GIS applications in science and governance. Papallacta and Ecuador were discussed as examples of the opportunities and challenges that governance issues pose to the design and implementation of environmental policies - from interactions of researchers with stakeholders to make scientific knowledge usable to the trade-offs involved in promoting mining and energy activities while at the same time protecting Ecuador's constitutional rights of nature. Twenty four professionals from 9 countries attended the second colloquium. Two projects arising from the colloquia were approved for funding under the Seed Grant program: 1) "Is my city ready for climate change? Science-policy framework to foster climate change adaptation in Latin American Cities." Participating countries: Ecuador, Colombia, Dominican Republic, Chile, Mexico and Uruguay (US\$ 20,000); and 2) "Lessons learned on facing the effects of extreme hydrometeorological events on agricultural systems". Participating countries: Ecuador, Argentina, Brazil, Chile, and Colombia (US\$ 20,000). Two letters of intent are still under review. If successful, two additional colloquia teams will be invited to submit a full proposal.

In recent **evaluations of training activities** participants most appreciated the ability to network, the introduction to GIS, and the Seed Program addressing proposal development; networking and exploring the different perspectives and challenges of participants and countries. The ability to plan future multidisciplinary and multinational collaboration was a strong theme attributing great value to the IAI capacity building. Several participants reported experience and confidence in writing disciplinary proposals, but acknowledged the difficulties in developing an interdisciplinary proposal. Consequently, participants appreciated the work in multidisciplinary teams to develop contributions from various areas of expertise in addressing global change problems. Colloquia participants reported a significant increase in knowledge and understanding of the science-policy interface. Many appreciated learning the tools and techniques used to transfer scientific and technical information to end-users and decision makers. Other outcomes reported were an improved ability to engage stakeholders, increased understanding of issues not only in their own country but throughout the Americas, and improved skills for effective data analysis, proposal development and future research.

Three **future training events** are being prepared for May-December 2013. The Workshop on **Integration of Knowledge for Global Change Adaptation: Principles and tools** (May 27 - June 1, 2013 - Mendoza, Argentina) is co-organized with the Argentinean Institute of Snow Studies, Glaciology and Environment Sciences (IANIGLA), the National University of Cuyo, and the General Department of Irrigation of the Government of Mendoza. The workshop goal is to strengthen capacity to effectively develop result oriented projects that address real and complex GEC problems through interdisciplinary, intersectoral and participatory work. The program will explore natural and social sciences integration, disciplinary and interdisciplinary concepts, methods and framing of research questions. IAI scientists and invited policy and decision-makers will discuss with participants their experiences and lessons learned in developing interdisciplinary research (joint framing of research questions, co-design of methodologies, establishing an effective multidisciplinary team, etc), as well as policy and management concerns helping to frame research projects based on their complex natural and social systems.

A Training Institute on **Adaptive Water-Energy Management in the Arid Americas** (24 June – 3 July, 2013, La Serena, Chile) will be conducted under the auspices of AQUASEC through a collaborative initiative of the IAI, University of Arizona, and Pontifical Catholic University of Chile. Additional collaborators are CAZALAC, Stockholm Environment Institute, and the International Hydrology Program of UNESCO. The program will provide advanced conceptual and practical training by international experts in the use and adoption of tools to address linkages between water resources and conventional and non-conventional energy, and interdisciplinary physical and social science approaches to water and energy joint management. The Water Evaluation and Planning System (WEAP) and Long-range Energy Alternatives Planning (LEAP) models will be used to develop diagnostic skills, integrated policy, and co-management of water and energy. This event will be funded with support from NSF's Pan-American Advanced Studies Institutes. Additional support will be provided by Itaipu-binacional and UNESCO-PHI.

A Training Institute on **Modeling Tools for the study of Complex Human/Natural Systems** will be held in December 2013. The Training will be hosted by Universidad del Valle in Antigua, Guatemala. The meeting of the Scientific Advisory Committee will be held back to back with this Training Institute to allow interaction among participants, speakers and SAC members to discuss interdisciplinary research and the linkage science-policy and capacity building.

In the **INPE/CPTEC Research Internship** Program, 2 young scientists from Peru and Venezuela have participated in the program from June 2012 to September 2013. Both came from the 2010 Training Institute on seasonal climate prediction. Christian Yarleque, who was co-funded by his home institution, the International Potato Center (CIP), worked on seasonal climate forecasts in mountain areas of Peru under the advisory of CPTEC's expert Chou Sin Chan. Raul Ramirez from the University Simon Bolivar is investigating the application of regional circulation models for studies of climatic anomalies in Venezuela under the tutorship of INPE/CPTEC's Karla Longo and Saulo Freitas.

Through the experience of the Collaborative Research Network Program (CRN 3) and the Training Institute Seed Grant Program, the IAI identified a major weakness in the scientific community's ability to integrate the natural and social sciences. This is a cross-cutting issue in research development in the region and worldwide. The Belmont Forum and other innovative science organizations report similar challenges. As a result, the IAI will be working on a new program to **strengthen capacity to co-design effective interdisciplinary research** proposals addressing complex global change problems. The goal is to launch a process that explores how to frame proposals departing from a true articulation of disciplines by an interdisciplinary team.

The workshops in Buenos Aires and Mendoza will provide useful input and directions in order to: 1) Define the capacity building goals and contents needed to enable interdisciplinary science development. What can IAI do to facilitate this process? 2) Define topics (problems to be solved) that will focus the research development and can be used to co-develop a project for funding. We plan to link this to the Future Earth / ICSU themes for Latin America on "sustainable energy" and "risk". 3) Identify and recruit people and organizations that can contribute to co-developing global change research between the human and natural sciences (social scientists groups, organizations, funding agencies, etc). 4) How can we bring groups of social scientists and students to participate actively in the formulation of joint strategies?

Following the Memorandum of Understanding between the IAI and the Economic Commission for Latin American and the Caribbean (ECLAC) the two organizations have worked on the development of the publication "**Urban Responses to Climate Change in Latin America**". An Editorial forum was held 28-30 October 2012 in Buenos Aires, Argentina (see also the policy liaison section following). The goal of the publication is two fold: 1) present usable information to urban actors about the relevance of climate variability and change to urban areas – how cities impact climate and how climate impacts cities; 2) assist a wide range of urban actors to identify opportunities for incorporating sustainable responses to climate change and variability in urban development and planning. The publication, which includes climate information for cities and good practices and experiences in adaptation and mitigation in Latin America should be available in electronic and in print, in Spanish language, in the second semester of 2013.

3. Science-Policy Liaison

The science-policy liaison office provided support in the preparation of institutional agreements, set up arrangements for the Buenos Aires office, and strategy development. Most science-policy activities over the past year have been in response to opportunities. At the same time the Directorate has developed a implementation plan for science-policy liaison. Once this plan is adopted, a more strategic approach will be possible. The main activities were:

A **Conference at Argentina's National Congress** with the theme "Science and Policy in Urban Responses to Climate Change", on 30 October 2012. The event was co-organized with ECLAC and the Commission on Science and Technology of the Chamber

of Deputies of the Argentine Congress. The Conference was chaired by the Commission President and was attended by some 100 participants, including the Vice-President of the Federal Council on Environment, the National Director for International Affairs of the Ministry of Science, Technology and Productive Innovation of Argentina, the IAI Executive Council Chair, the IAI Director, local authorities, scientists, politicians and their technical advisors, NGOs and journalists. The event was held with an IAI ECLAC Editorial Forum (28-30 October 2012). A discussion panel on “Building local responses to climate change” was initiated with presentations by Cecilia Conde (Universidad Autónoma de México), Ana Murgida (Universidad de Buenos Aires), Roberto Sánchez (Colegio de la Frontera Norte, Mexico). The second panel, on “What to expect from climate change in urban areas in the Americas: latest developments in scientific research” was moderated by Ricardo Jordán, ECLAC, and included comments by Ricardo Bertolino (Environment Secretary of the city of Rosario), Atilio Savino (former National Secretary of Environment and now with the International Solid Waste Association), Freddy Arteaga (Regional Government of Antofagasta, Chile), Ignacio Lorenzo (Ministry of Housing, Zoning and Environment of Uruguay), and Rafael Martins (Coopération et Développement of Belgium and the State University of Campinas, Brazil). The Conference served the purpose of making IAI’s work visible to a significant policy making audience in Argentina, and positioning the Institute with this audience as a provider of relevant and credible information and network building for future engagement and outreach activities.

In December 2012, IAI was approached by the Red Argentina de Acción ante el Cambio Climático (a network of local authorities on climate change) to support the II **Latin American Forum on Sustainable Development**, to be held in the city of Rosario, Argentina, May 26-29. IAI offered support in dissemination, technical assistance in the review of papers and the availability of scientists who had done work on urban aspects of climate change to participate as speakers. As a result, a relationship was established with this network of decision makers and more activities are expected in the future.

During the March 2013 Colloquium on Knowledge Integration at the Science-Policy Interface (with NCAR) in Quito, Ecuador, a meeting was held with representatives of **Ecuador’s Secretary for Higher Education, Science and Technology** (SENESCyT), to explore further collaboration for science-policy engagement and outreach. A draft MoU has been sent for SENESCyT consideration that would allow both institutions to develop joint activities in research, capacity building and science-policy liaison.

IAI was approached by **Fundacion Red de Accion Política**, an Argentine NGO that works with politicians from multiple political parties and different levels of government to strengthen their capacities, to co-organize a tour of Washington, DC and New York by a group of high level politicians in May 2013. IAI assisted in organizing meetings with the **US Global Change Research Program**, including six different agencies, with scientists at the **Earth Institute at Columbia University**, including IAI-SAC member Walter Baethgen, and with the scientific departments of WWF-US and the World Resources Institute. IAI accompanied the tour as a technical advisor. During the tour, contact was established with the Inter-American Dialogue, Revenue Watch Institute,

UNDP's officers working on the post-Rio+20 process, and the area of Political Affairs at the Organization of American States.

Also in May, IAI was invited to speak on science-policy liaison at a meeting of **Foro del Mar Patagonico**, a multinational network of scientists and NGOs that work in the research and conservation of the southern ocean around Patagonia.

4. Directorate Operations, Tripartite Implementation

A new **Assistant Director for Science Programs** has been contracted following the dismissal of the previous one in 2011. Elma Montaña, an architect and social scientist by training will begin her work with the IAI in June 2013.

The **Information Technology** Manager has left the IAI in April 2013. Repeated power cuts during 2012/13 resulting in server crashes, interruptions of connectivity and additional work loads for system repair, have left the IAI server system vulnerable, particularly now in the absence of an IT manager. One serious hack has occurred, and INPE, which is monitoring IAI traffic, has alleged the presence of inappropriate material on the IAI server. This has not been substantiated, but one server remains "quarantined". As a result of these, and additional band-width problems, the IAI servers and domain are currently being relocated, and services will be outsourced. INPE has committed to provide help-desk support during the transition. Ongoing expansions and innovations of the IT services are on halt until the new servers and domain registrations are in place.

One of the new IT services implemented was an anonymous, single access **Internet voting system** to facilitate the intersession SAC elections called for by CoP 20. The system successfully passed tests, but not enough country representatives registered to achieve quorum and allow the voting to be conducted.

Emergency contracts for the **4 staff to be provided by the government of Brazil** under the existing host country agreement expired once again in October 2012 and were not renewed. All staff was laid off by Brazil. Since the staff is required for IAI operations, the directorate now pays all 4 from its core budget.

Demands by the **Brazilian tax and social security** systems for approximately US\$ 200,000 of allegedly owed contributions continued despite Directorate efforts since 2010 to clear up the matter. Although all contributions had been duly paid, and proof was provided by the Directorate, an order was issued by a federal judge to seize the IAI's and its executive director's assets. In contravention of applicable legislation and the IAI inviolability, this order was served in October 2012 without prior warning. The IAI immediately engaged lawyers to stay execution of the order. As of May 2013, the Brazilian tax and social security systems have confirmed that, indeed, all contributions had been paid, but the order of seizure continues, albeit suspended. The Directorate and its lawyers continue to work towards a resolution. The tax issues have also affected Brazilian IAI staff. As a result and precaution, most staff are now engaged as external consultants, responsible for their own tax and social security contributions. At least one employee is still affected by the issues ramifications for personal income tax returns. The

experience from these ongoing operational challenges will need to be considered in designing the future operations of the IAI's science development directorate in Brazil.

The new **science-policy liaison directorate of the IAI** in Buenos Aires has its legal foundation in the new host country agreement signed between IAI and Argentina. The Directorate has been provided with office space in the Ministry of Science, Technology and Productive Innovation (MinCyT) of Argentina. The Directorate is currently engaged in developing the space for its purposes. A candidate for the director's position has been chosen and is to be contracted with support by the Argentinean Government. The IAI's existing consultant on science-policy will continue his contributions. MinCyT and IAI are collaborating to provide support to both professionals.

The **host country agreement between the IAI and Uruguay** has been signed and is awaiting ratification by parliament. Meanwhile the Ministry of Housing, Land Reform and Environment (MVOTMA) of Uruguay is cooperating with the IAI on finishing the future premises for the IAI Directorate.

The new **host country agreement between the IAI and Brazil** is under review. A full report on the **implementation of the Tripartite Agreement** will be provided by the ad-hoc committee overseeing the process.

5. Events, Presentations by Directorate Staff

- 23-24 July 2012, Taller sobre el Índice de Utilidad de Prácticas de Adaptación (IUPA) en Uruguay, Montevideo, Uruguay. (Ohira, Tiessen)
- 8-19 October 2012, CoP-11 of the United Nations Convention on Biological Diversity (CBD), Hyderabad, India. (Anderson)
- 28-30 October 2012, IAI-CEPAL Foro Editorial para la Construcción de Respuestas Urbanas para el Cambio Climático, Buenos Aires, Argentina. (Lucas, Ohira, Tiessen)
- 30 October 2012, Conference on Science and Policy in Urban Responses to Climate Change. (Lucas, Ohira, Tiessen)
- 11-17 November 2012, Joint IAI - NCAR Colloquium on Knowledge Integration at the Science-Policy Interface, Santo Domingo, Dominican Republic. (Ohira)
- 3-4 December 2012, ICSU-ROLAC regional planning workshop for the global "Future Earth" initiative, Ciudad de Mexico, Mexico. (Tiessen)
- 3-4 December 2012, Meetings with NSF Finance (CRN II close preparation), Washington DC, USA (Atmetlla)
- 30-31 January 2013, Contract Seminar – Foreign Contractor Focus, New York, USA (Anderson, Atmetlla)
- 4-5 March 2013, WCRP Conference on Climate and Society for Latin American and the Caribbean - SSC Kick Off Meeting, Buenos Aires, Argentina. (Tiessen)
- 11-13 March 2013, Joint meeting of principal investigators, Scientific Advisory Committee and Directorate, Buenos Aires, Argentina. (Anderson, Lucas, Ohira, Tiessen)
- 12-March 2013, 33rd IAI SAC meeting, Buenos Aires, Argentina. (Anderson, Tiessen)
- 15 March 2013, International Meeting of the project Latin American network of knowledge centres in the water sector –RALCEA, Montevideo, Uruguay. (Ohira)

19 March 2013, Lanzamiento del “Centro Regional de Cambio Climático y Toma de Decisiones AVINA-UNESCO, Montevideo, Uruguay. (Tiessen)

19-20 March 2013, Cuarto taller presencial de la iniciativa “Centro Regional de Cambio Climático y Toma de Decisiones AVINA-UNESCO, Montevideo, Uruguay (Lucas, Ohira, Tiessen)

8-12 April 2013, Colloquium on Knowledge Integration at the Science-Policy Interface, Quito, Ecuador. (Lucas, Ohira)

14-16 April 2013, ICSO-ROLAC Implementation of Future Earth in LA&Caribbean, Rio de Janeiro, Brazil. (Tiessen)

25 May 2013, Science Integration Meeting, Buenos Aires, Argentina. (Lucas, Ohira, Tiessen)

26-28 May 2013, II Foro Latinoamericano de Desarrollo, Rosario, Argentina. (Lucas)

27 May - 1 June 2013, Interdisciplinary Training Institute on Integration of Knowledge for global change: Principles and Tools, Mendoza, Argentina. (Lucas, Ohira, Tiessen)

6. Country contacts

Many of the government contacts were linked to high-visibility training events conducted by Marcella Ohira.

Dominican Republic: November 2012, Victor Viñas, Director of the Climate Change Program; Mariana Pérez, Director of Environmental Information; William Fermin, Adaptation and Vulnerability Division, Ministerio de Medio Ambiente y Recursos Naturales.

Dominican Republic: November 2012, Gloria Ceballos, Executive Director; and Dionicio Cordero, Director of Climatology of the Meteorological Service.

Ecuador: April 2013, Lorena Tapia, Minister of Environment; Mercy Borbor, Vice-Minister of the Environment; and Maria del Pilar Cornejo, Secretary for Risk Management.

Ecuador: April 2013, Juan Carlos Moreno, Director of Science Research; and Zaskia Mousseau, Director of International Affairs of the Secretary of Science, Technology and Innovation-SENESCYT. (Lucas, Ohira)

Several countries have made special efforts to reduce or eliminate arrears in their contributions to the IAI. Uruguay, in addition to funding the new directorate offices, has paid all back dues. Paraguay paid 3 contributions, Chile paid 2 contributions, Mexico paid its current and all back dues.